



National Audit Office

Innovation across central government

LONDON: The Stationery Office
£14.35

Ordered by the
House of Commons
to be printed on 23 March 2009



SUMMARY

1 Innovation is important for bringing about improvements in quality and efficiency of public services and for responding to changing social and economic conditions. In the private sector, innovation is acknowledged to be a critical determinant of competitiveness, profitability and overall positioning. In the public sector, national challenges such as climate change and an ageing population call for fresh approaches and ideas, as does the pressure on the public sector to generate efficiency savings and improve customers' experiences of public services. Tightening public finances and pressure on financial resources increase the need for government to seize innovative ideas that can lead to greater efficiency and effectiveness, and develop them through to implementation.

2 Innovations that address these challenges can be incremental, continuous improvements – such as the more efficient organisation of HR services in a department – through to radical, more transformative changes – such as online tax returns and iris scanners at the national border. In the context of the public sector, it is widely accepted that innovation can mean ideas adopted from another organisation, sector or country as well as totally new ideas (**Box 1**). While the aim of innovation is to change the administration or delivery of services for the better, the innovation process may involve some failure as new things are trialled and piloted.

BOX 1**The Government's definition of innovation**

The White Paper *Innovation Nation* defines innovation as: "the successful exploitation of new ideas..." "New" in this context can be new to the sector or the organisation, taking an idea from one context and adapting it to another.

3 The innovation lifecycle depends on more than good ideas. There need to be clear drivers and incentives, strong implementation, and means for learning from success (**Figure 1**).

4 In 2007, the government created the Department for Innovation, Universities and Skills (DIUS). As well as inheriting the science and innovation responsibilities held by the former Department for Trade and Industry, the new department became responsible for policy on public sector innovation. The White Paper, *Innovation Nation*, sets out the Department's strategies for increasing the innovativeness of the public sector and for coordinating existing initiatives on public sector innovation.

5 The Cabinet Office also has a continuing role to play in increasing innovation in central government. Its strategy for achieving "excellence and fairness in public services" sets out reforms designed to "unlock the creativity and ambition of public sector workers to innovate and drive up standards" as well as strengthening government's strategic leadership and empowering citizens.

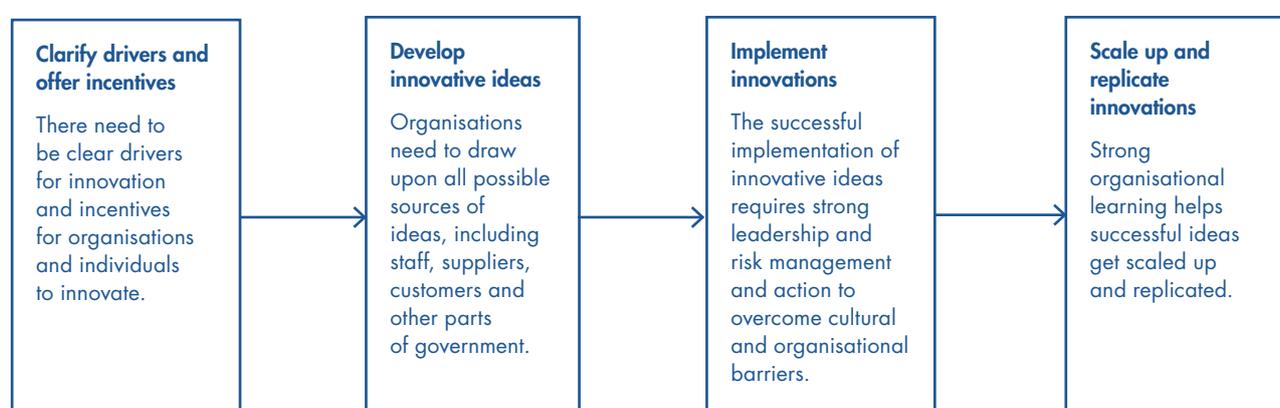
6 Most innovation spending is not identified as such, but occurs as part of large business transformation programmes or initiatives to improve efficiency and

effectiveness of service delivery. It is not possible therefore to state categorically how much central government spends on innovation, but we estimate that departments have allocated at least £3 billion to it in the form of innovation budgets. The government announced in *Innovation Nation* that it had set aside a further £2.5 billion of funding from 2008-09 to 2010-11 to support public sector innovation.

7 The National Audit Office last examined this subject in our 2006 report *Achieving innovation in central government organisations*, and found that there was scope for government to take a more systematic approach to developing innovations by improving costs and productivity data, creating incentives for individual managers, finding new ways of seeking ideas from the frontline, encouraging learning from others, and establishing more effective piloting processes. This report examines central government's subsequent progress in improving its innovative capabilities, in the light of the significant challenges requiring innovation and the creation of the new Department for Innovation, Universities and Skills.

8 To gather evidence for our examination, we conducted a survey of 27 government departments, agencies and non-departmental public bodies ("central government organisations"). As part of this survey, we asked them to submit examples of successful innovative projects which were currently under way, and we interviewed 15 people who were involved in the implementation of these projects. We held online discussions with 120 frontline public servants to obtain a more detailed picture of how innovation affects the delivery of public services at a working level and to

1 Implementing successful innovations depends upon clear drivers, strong incentives, good ideas, an absence of barriers to their implementation, and means for learning and replicating success



Source: National Audit Office

examine the barriers to further innovation. We also reviewed the literature on innovation in the public and private sectors and conducted interviews with policy officials in the Department for Innovation, Universities and Skills and a range of other stakeholders. Further details of our methodology are in Appendix One.

9 Part One of this report describes the innovation agenda, including government's track record of innovating and how this compares with the private sector. It describes some of the key challenges which require innovation in the public sector, as well as the responsibilities of DIUS, the Cabinet Office and other bodies for increasing the innovative capacity of government. Part Two presents 11 of the case examples of innovation that we examined in more detail and shows how innovation happens in government and what it can achieve. These are listed in **Box 2**. These cases illustrate the innovative approaches adopted by Departments and Agencies. They are at different stages of realising their potential and we have not formed

a judgment on their likely success. Part Three examines the scope for further innovation in government, why not all opportunities to innovate are taken, and the action that DIUS, the Cabinet Office and other parts of government have taken to address these barriers.

Key findings

10 Since our 2006 report, the need for innovation has been emphasised more strongly by the centre of government. Our survey shows that central government organisations recognise the need for innovation and its increasing importance. They also consider that the amount of innovation they undertake has increased in the last five years. Many of the means for generating and capturing innovative ideas we recommended in 2006, such as innovation units, customer research and staff suggestions schemes, are in place in central government organisations. Appendix 2 summarises progress made to date against our 2006 recommendations.

BOX 2

Cases of innovation featured in this report

- 1 The Department of Health: work to address the issue of stillbirth at Luton and Dunstable hospitals.** Luton PCT's analysis of recent stillbirths in its area showed a number of significant trends, and through engagement with local women they came up with a number of innovative changes to processes which were designed to reduce the number of stillbirths.
- 2 The Ministry of Justice's Community Justice Programme.** The programme aims to tackle crime and anti social behaviour by bringing all the criminal justice agencies together to learn which crimes most concern local people, provide information to local people and encourage the community to develop solutions to the problems.
- 3 The Cabinet Office's Show Us a Better Way competition.** A Cabinet Office taskforce ran a competition which encouraged individuals to submit innovative ideas as to how government could make its data available to citizens in a more useful way.
- 4 The Environment Agency's Flood Warning Direct system.** This system uses new technology to enable registered users to be notified of flood warnings in their area via their preferred means, such as by text message or e-mail.
- 5 The Higher Education Funding Council for England's Higher Education Innovation Fund (HEIF).** HEIF is a funding stream which encourages Universities to engage with the wider world in innovative ways. Universities are able to create their own plans for how they are to achieve this interaction.
- 6 The Prison Service's procurement of prison mattresses.** The use of an innovative procurement process allowed the private sector to develop innovative solutions to the Prison Service's problem of the high cost of replacing prison mattresses.
- 7 The Home Office's IRIS border control system.** IRIS is an innovation that results in registered passengers being processed more efficiently at UK airport borders. The solution is based on gates that scan individuals' irises, which means that they do not have to interact with Immigration Officers.
- 8 The Department for Work and Pensions' Lean Programme.** The concept of lean processing was initially developed in the automotive industry as a means of eliminating waste from the production cycle. The DWP are using it to see how their processes could be improved and made more efficient.
- 9 The Environment Agency's Innovation 4 Efficiency team.** This team provides a link between the science and operations functions of the Agency to provide innovative solutions to operational issues. They assist with the piloting and implementation of projects, and direct the Agency's horizon scanning work into areas that would benefit operations most.
- 10 The Pension Service's Pension Transformation Programme.** This programme is a process of complete business transformation in The Pension Service, covering everything that it does operationally, as well as some support services, in order to improve the service offered, and generate efficiencies.
- 11 BERR's Business Support Simplification scheme.** BERR embarked on a large scale project that set out to make it easier for businesses to engage with government by reducing the number of available support schemes from around 3,000 to around 30.

Source: National Audit Office survey of central government organisations

11 Government organisations are developing innovations, from efficiency improvements such as introducing Lean processing, a technique for achieving efficiency and effectiveness improvements adapted from car manufacturing, service improvements developed at the frontline, such as the NHS productive ward programme¹ to new services to tackle strategic challenges, such as changing the way services are delivered to pensioners.

12 Common factors led to the success of the innovations in Box 2, including support from senior leaders, good management of risks and data to measure success. For instance, the Flood Warnings Direct system and the IRIS Border Control project could demonstrate measurable benefits early enough to allow robust decisions about rolling them out. Piloting and testing can provide this evidence and permit unsuccessful innovations to be stopped early. The Luton and Dunstable stillbirth project involved quick trials of ideas on a small scale, with the successful ones scaled up and those that were unsuccessful, halted.

13 Compared with leading commercial organisations, there is potential for departments to develop more innovation from suppliers and from service users. The majority of examples of innovation that central government organisations cited to us were based on ideas generated and developed within the organisation and often introduced by the senior management of the organisation.

14 The use of a commissioning process which specifies the required outcomes, but not the means used to achieve them, can be used to encourage more innovation from suppliers, such as was done in the Prison Service's disposable mattress procurement process. Understanding the experience of service users can identify service improvements such as in the Ministry of Justice's Community Justice programme, where the local community was involved in shaping services in their area, letting them prioritise issues and come up with solutions.

15 Our fieldwork with frontline staff showed there were barriers for public servants, who are inhibited from developing innovations through to implementation by risk-averse attitudes and perceptions that national performance measures, targets, budgets and national initiatives leave little room for innovation. They will also resist change that is imposed without a clear understanding of how it relates to the organisation's goals.

16 Confusion about the meaning and purpose of innovation among staff is a barrier to the generation of innovative ideas. For instance, staff told us there was scope for innovation to improve services, as well as to

achieve cost savings, but needed to know that both were recognised as valid business objectives. Staff do not consider they have an incentive to voice innovative ideas and take on the risks associated with developing them.

17 Clearer messages from leaders about why innovation is needed and what they expect from staff would help overcome these barriers, but departments will also need to manage innovation more systematically. Only a few departments have strategies which show that they understand where they need innovation or how to encourage and support it, but those that do such as the Department of Health have a better understanding of the role of innovation within their priorities. **Box 3** summarises the key factors we consider make organisations well placed to develop innovations that improve quality and efficiency and respond to emerging challenges.

BOX 3

Critical success factors for innovation at a departmental level

Leaders have a good understanding about, and communicate, what innovation means in relation to the organisation's objectives, where innovation is needed, and what they expect staff to do.

Individual and organisational targets and objectives create **incentives** that focus leaders and staff throughout the organisation on continuous and radical improvement and which are outcome based (as opposed to prescribing how they do their jobs) so as to give flexibility in allowing for innovative responses.

Staff are given the **time and resources** to develop innovative ideas and available **funding** is used to support innovations being tested, piloted and rolled out where there are demonstrable benefits to be achieved.

The organisation responds to **customer feedback** and develops innovations with **suppliers**.

Innovations are delivered effectively. The critical success factors we identified from the case examples, including ensuring that risks are well managed, the signs of failure are quickly acted upon, and staff support is secured for changes in processes, are listed in Box 8.

Measures of success are in place for individual innovations and there are **mechanisms for learning lessons** from successful and failed projects.

There are systems in place for **disseminating what works**, to other parts of the organisation and other delivery bodies, and for **adopting innovative ideas developed elsewhere**. These are underpinned by budgets, senior management direction and incentives.

¹ NAO Report. *Helping Government Learn*, HC 128, 2008-09.

VFM conclusion

18 The capacity of government to innovate substantially affects value for money. Innovation can improve value for money by: leading to better ways to meet government objectives; increasing departments' capability to meet future challenges; and generating efficiency improvements. To this end, the government has allocated at least £3 billion a year for innovation via departmental innovation budgets, and the government has earmarked a further £2.5 billion to support public sector innovation from 2008-09.

19 There are no measures yet in place to assess the impact of this expenditure. The examples in Box 2 show that the government is developing successful innovations. But departments are not currently maximising the opportunities to innovate and no central government organisation matches the model of success outlined in Box 3, although good progress is being made by several. The recommendations below set out what needs to be done to move towards this model.

Recommendations

- a** **The Department for Innovation, Universities and Skills currently has no means for measuring the impact of its policies or other central government initiatives on innovation.** Devising measures for the public sector is complex. Our survey work could be developed to measure departments' innovative capacity, while the biennial UK Innovation Survey of businesses uses measures of innovation activity, such as the introduction of significant product, service or process improvements. To measure progress in the shorter term, and as a stepping stone to a comprehensive measure, DIUS should develop these sources into a tool to track departmental innovation, including progress against all the recommendations below, with results to be reported in the Annual Innovation Report. Projects supported by departmental innovation budgets should have measures in place to determine that their benefits have been realised.
 - b** **Confusion about the purpose of innovation prevents government organisations taking opportunities to innovate.** At a local level, organisations and managers do not see how innovation fits in with their other priorities. Innovative solutions should not be seen as competing with the objectives of achieving greater efficiency or a high standard of customer service; on the contrary, innovations such as those listed in Box 2 can help achieve these objectives.
 - c** **Few central government organisations have considered strategically where they need innovation or how to encourage and support it.** Departments need to develop plans which set out their own priorities and the means by which innovation will be facilitated, including how they will use management information, horizon scanning and customer feedback to identify specific areas for innovation. The priorities for innovation vary between sectors which will therefore need specific approaches. Departments need to decide where their priorities lie, for instance increasing productivity, devising innovative solutions to new problems, or improving customer experience, and where they need to strengthen the support for innovation. Leaders should clearly communicate their plans to staff and suppliers throughout the delivery chains. DIUS should assist departments in developing these strategies and should highlight and spread good practice.
 - d** **Most current innovation is generated and driven by senior management, and central government organisations need to do more to develop ideas from the frontline, users and suppliers.** Departments are prepared to learn and seek ideas from staff working at the frontline, suppliers and service users, but these sources are not being fully exploited. Our case examples illustrate good practice in gaining staff support for innovation, and innovation units such as the Environment Agency's Innovation 4 Efficiency team have succeeded in developing the ideas of front-line staff to fruition. There is less evidence on what works in creating incentives to innovate and overcoming barriers such as risk aversion, so experimentation backed up by robust metrics will be needed to measure success.
- DIUS should agree with the Cabinet Office and Treasury what role innovation is expected to play in achieving overarching objectives such as those in Public Service Agreements, as well as greater efficiency, service transformation and public service reforms.
 - The centre of government should then collectively articulate a clearer message across government including to NDPBs, agencies and local delivery bodies, that innovation can help departments achieve their own strategic objectives, and that frontline staff can be empowered to make improvements. This message could be supported by using the success factors in Box 3 to examine innovation explicitly in future capability review assessments.

- Central government leaders should move beyond supporting individual cases of innovation to allowing and promoting innovation for continuous improvement. Where central government organisations have a portfolio of innovations at any one time, not all of which are expected to succeed, leaders need to make clear it is acceptable for a project to fail, providing that lessons are learned from it and that the failing project is quickly brought to a halt.
 - Departments should experiment with different mechanisms to encourage frontline staff to play an active role in innovation, supporting the message from leaders by trialling incentives, including reward schemes, budgeting for outcomes and using innovation units to provide time, resources and expert support for the development of ideas.
 - Departments should also encourage innovation from suppliers, by early engagement to find out what solutions suppliers have to offer to policy problems, and commissioning for outcomes rather than procuring predetermined products; from citizens, by explicitly involving them in service design, learning from customers' experience of services, and applying the Government Standard for Customer Service Excellence and measuring progress against it; and from other organisations, by encouraging greater openness and exchange of people and knowledge.
 - DIUS and its delivery partners such as the National School of Government should demonstrate the benefits of innovation by drawing together and promoting successful practice in the above areas and support departments in adopting the best innovations.
- e **Innovative projects have had to overcome structural and cultural barriers and need access to support and expertise to succeed.** Some departments have innovation units or similar support, but awareness amongst staff of what they can offer is low. They should be used to select promising ideas which meet priorities, provide time and resources for developing those ideas, help with the development of business cases, put those responsible for implementation in touch with subject experts, and assist in piloting and testing. To increase awareness, departments need to promote positive examples, such as the Innovation 4 Efficiency team (Box 2), of how such means can support innovation. DIUS should support its delivery bodies such as NESTA, the Design Council, and the Sunningdale Institute (via their Whitehall Hub for Innovation) to identify and fill gaps in provision of support mechanisms across the public sector.