



# Public sector innovation

## The role of commercial partnerships

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## Executive summary

The global economic situation is putting increasing pressure on public sector funding and so innovation is now being recognised as an essential mechanism for maintaining the quality and scope of services whilst reducing costs. This report describes new research into a specific type of public sector innovation – commercialisation: partnerships between the public sector and commercial organisations which enable new or enhanced services to be developed. A crucial aspect of such partnerships is that they can lead to the development of new services which create new value. This enables financial and other benefits for both the public sector and commercial partners.

The research conducted for this report consisted of a survey of civil servants' views on commercialisation and two case studies of successful innovation—the Public Sector Broadband Aggregation (PSBA) in Wales and the Met Office Healthy Outlook<sup>®</sup> service. The survey enabled barriers to commercialisation to be identified, such as lack of guidance and support, lack of clarity in the remit of the public sector, and inadequate awareness of the opportunities.

The two case studies enabled the key characteristics of commercialisation to be determined, particularly the need to start early discussions with potential commercial partners, to gain board level sponsorship for projects, and to ensure that the value of the innovation is shared. Contrasting the results of our research to the way innovation is managed in the private sector, allows us to make four main recommendations on maximising the value of commercial partnerships:

- ➔ The focus of public sector innovation must go beyond service efficiency, and the exploitation of internally generated ideas. To gain the maximum value from public sector assets, suitable discussions need to be held with potential commercial partners.
- ➔ Discussions with the commercial sector have the potential to create innovative ideas for new services. The public sector will need to become adept at conducting early stage discussions with commercial organisations, if it is to gain the maximum value from public assets. Suitable partners need to be identified, where the capabilities of the commercial sector complement the unique expertise and assets of the public sector. Making such partnerships work will require trust on both sides and sharing of the value generated from the innovation developed.
- ➔ Managers in the public sector urgently require more guidance and support on how to apply the concept of commercialisation and achieve the benefits.
- ➔ Public sector innovation is very different from innovation in the commercial sector. Therefore, although there are some points to be learned from the commercial sector, appropriate tools need to be developed for the public sector and these need to be disseminated to civil servants.

## Introduction

The worldwide financial recession is having a major impact on the ability of governments to deliver public services. If the quality and availability of services are to be maintained, it will be necessary to introduce more innovative ways of delivering public services. This report explains how innovative approaches can be used to sustain or improve service levels, whilst at the same time reducing the costs of delivery. It is based on new research and aims to provide clarification on the nature of and opportunity for innovations in the public sector, including new commercial partnerships (commercialisation). The research conducted for this report consisted of a survey of UK civil servants' views on commercial partnerships and two case studies of successful innovation with commercial organizations. The study was conducted by Cranfield School of Management, sponsored by Steria and in conjunction with Civil Service World.

Based on the research, this report explains how partnerships with commercial organisations can add a 'new dimension' and boost innovation in the public sector. However, creating these partnerships is a major challenge: our survey results show that more guidance on commercial partnerships is required to make them work effectively. The survey results also show that only a minority of respondents were able to give examples of successful service innovations in the UK public sector, and very few of these examples were commercial partnerships. Since innovation has been recognised by the UK Government as an important mechanism to improve the effectiveness of public services, a clear understanding of public sector innovation and the opportunities it can provide is needed. To address this challenge we discuss the findings of previous research and contrast it with the findings of our two case studies.

Over the last two decades, companies in the private sector have recognised the importance of innovation and of developing ways of managing it. In a commercial environment, the dimensions of innovation include new products, new services, new processes (e.g. new manufacturing methods), and new business models.<sup>1</sup> The dimensions of innovation for public services are significantly different and include aspects such as service improvement (efficiency), new delivery models, new services, new forms of governance and services ownership. Building on previous research, we develop a framework for public sector innovation. New commercial partnerships offer an important opportunity for innovation in the public sector and, crucially, they can enable the value of the innovation to be shared between the public sector and the commercial partner.

### **The seven main sections of this report are:**

- ➔ The public services challenge and the role of innovation.
- ➔ A review of previous research on public sector innovation leading to a model of public sector innovation, including commercial partnerships.
- ➔ The results of a survey of civil servants' views on commercialisation.
- ➔ A case study on the Public Sector Broadband Aggregate (PSBA) in Wales.
- ➔ A case study on the Met Office Healthy Outlook<sup>®</sup> service.
- ➔ A discussion of the implications of the research and recommendations for managing commercialisation in the public sector.
- ➔ A summary of our key findings on managing public sector innovation, including commercial partnerships.

## The public sector challenge

The worldwide recession has meant that national debts have increased in many countries. Many governments are unwilling or unable to raise tax rates and so are planning severe cuts in public expenditure. For example Spain is reducing public sector wages and freezing pensions<sup>2</sup>, Germany is introducing an austerity package with welfare cuts<sup>3</sup>, Italy has frozen public sector pay, raised the retirement age and introduced cuts in ministry budgets and top civil servants' pay,<sup>4</sup> in France plans to change the pension system are encountering significant opposition<sup>5</sup>, whilst in the US the deficit is being hotly debated and cuts are being pledged by the Republican party<sup>6</sup>.

Whilst globally there are signs of economic recovery, the situation remains critical in countries such as the UK, where the national debt has considerably increased as a result of the financial crisis (see Figures 1 and 2). Cuts in public expenditure will put substantial pressure on the delivery of public services. Consequently, a critical question is: How can the quality and availability of public services be maintained when resources are decreasing? Governments around the world have identified innovation as a key method for addressing such questions and making public services more effective<sup>7</sup>.

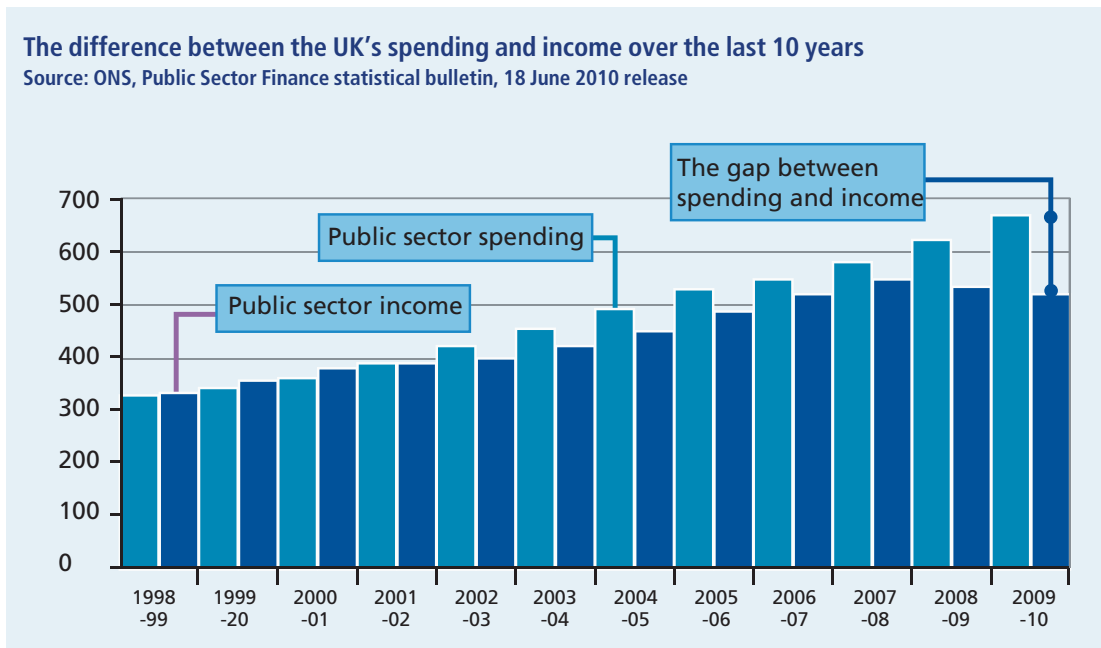


Figure 1: UK current account (Source: [http://hm-treasury.gov.uk/junebudget\\_diagrams.htm](http://hm-treasury.gov.uk/junebudget_diagrams.htm))

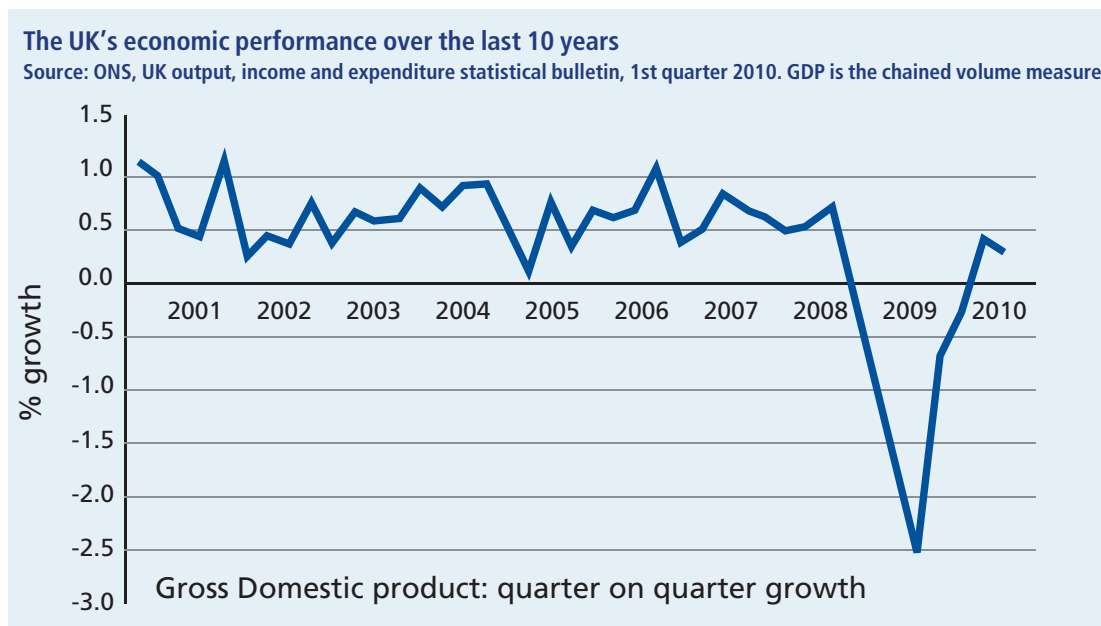


Figure 2: UK GDP growth (Source: [http://hm-treasury.gov.uk/junebudget\\_diagrams.htm](http://hm-treasury.gov.uk/junebudget_diagrams.htm))

The newly elected coalition government in the UK began their term by announcing major cuts in public spending<sup>8</sup> and the June 2010 Spending Review Framework set the scene: “Reducing the budget deficit is the most urgent issue facing Britain”<sup>9</sup>. Many changes to existing public sector bodies are likely, including reductions in the number of agencies, and in the total number of employees. Innovation can play a key role in reducing the deficit. There is a strong history of innovation in the UK public sector, in health, education and other areas<sup>10</sup>. This innovation was supported by previous government investments estimated at £3 billion<sup>11</sup>.

Much of the UK focus on public sector innovation has been on improving existing services—incremental innovation. It has concentrated on utilising existing assets as it is estimated that efficiency improvements could save the UK £18B by 2015-16. However, service innovation which focuses solely on process efficiency will not be sufficient to bridge the spending gap<sup>12</sup>. In addition, focusing only on efficiency can stifle more radical innovation, since the time and resources to experiment may not be available<sup>13</sup>.

Achieving more radical innovation in the current cost-cutting climate will be difficult. In the commercial sector it has been recognised that organisations will struggle to develop radical innovations if they only utilise their own resources and capabilities. The need for companies to look beyond their own organisational boundaries to create innovation is called open innovation and this concept is being increasingly applied in the commercial sector<sup>14</sup>. In the public sector, ways in which the unique capabilities and assets of the public sector can be combined with commercial partners’ capabilities need to be found. Such combinations of capabilities and assets can create new and enhanced services that will generate shared value.

Clearly, there are challenging times ahead for the public sector and innovation will be an important tool for finding ways in which to maintain service levels whilst reducing costs. Consequently, it is an imperative that the opportunities for innovation in the public sector are better understood. Around the world there are a number of universities, institutes and governments that publish research and we will discuss this work on public sector innovation in the next section.



## Research on public sector innovation

As we have stressed governments around the world are promoting innovation as a key method to improve public services<sup>15</sup> and in the UK there is acknowledgement that effective public services require innovation<sup>16</sup>. The literature on public sector innovation consists of a substantial body of research published independently by academic institutions across the world and a good deal of research published by governments themselves. In this section we will present the salient points from a review of this literature<sup>17</sup>, supplemented by insights from studies of managing innovation in commercial organisations. We will cover five main areas:

- Defining public sector innovation
- Ownership models
- Barriers to innovation
- Overcoming the barriers
- The context of public sector innovation.

### Defining innovation in the public sector

Innovation needs to be more clearly understood, if it is to become more widespread in the public sector. Through a better understanding of its attributes, methods for managing public sector innovation can be developed.

The Department for Innovation, Universities & Skills (now Department for Business, Innovation and Skills) defined innovation as “the successful exploitation of new ideas”<sup>18</sup>. This definition is frequently used within UK government circles, and it differentiates between creativity (developing new ideas) and innovation (successful implementation). However, the definition is not specific enough to be useful in the public sector. Surprisingly, very few of the papers and reports identified in our literature review have attempted to define the nature of public sector innovation.

A training booklet for UK civil servants says, “Innovation in the public domain is less about products and more about making new connections and being collaborative; it is focused on strategic problem solving rather than ‘one-size-fits-all’ solutions.”<sup>19</sup> Again this explanation is generic. Although it points out that public sector innovation is different to innovation in companies (i.e. not about new products), it does not clearly articulate the opportunities for innovation in the public sector.

In 2005 the Improvement and Development Agency (IDeA) published a review of innovation in public services and importantly recognised that there are different levels or degrees of novelty: incremental; radical; or transformational. The Agency also recognised that innovation can be achieved through a wide range of means including: service improvement, systems and process improvements, organisational structures, partnerships, horizontal integration, fiscal management, public service revitalization, devolution and decentralization, regulatory change, the use of IT and partnerships<sup>20</sup>. The insights provided by the IDeA work have strong parallels to earlier research on innovation in the private sector. In the 1990s many companies were struggling with innovation management, partly because there was no clear terminology<sup>21</sup>. Today it is widely understood that innovation in the commercial sector consists of different dimensions (new products, new services, new processes, and new business models), which can be implemented independently or in combination, and which can overall lead to different degrees of innovation: incremental, radical, and transformational innovation.

In Figure 3, we have adapted a framework of innovation developed for the private sector<sup>22</sup>, in order to identify the dimensions of public service innovation and how these can achieve today's very relevant outcomes of less costly services and new services (without extra investment) as well as service quality improvement. As we noted in the previous section, public sector innovation should consist of more than improvements in service efficiency. Therefore, the diagram shows additional dimensions such as new delivery models, and new channels. New delivery models and channels include service delivery e.g. co-production (citizens are involved in delivering the service), co-management (services are produced collaboratively), and co-governance (citizens or other agencies are involved in planning and delivery)<sup>23</sup>.

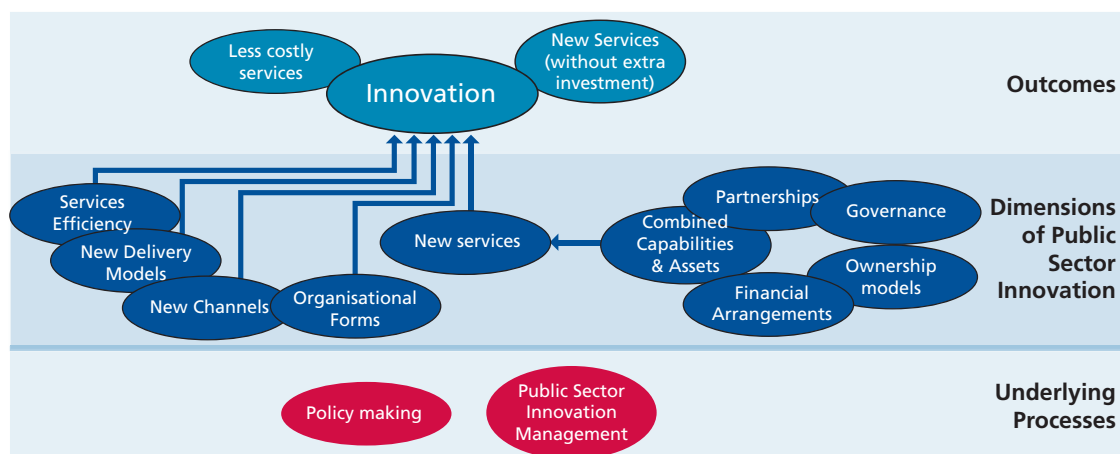


Figure 3: A framework for public service innovation



It has been argued that complex inter-organizational relationships will provide important opportunities for innovation in the public sector<sup>24,25</sup>. Figure 3 indicates that radically new services are an important dimension of public sector innovation that can be achieved, for example, by new approaches to ownership and governance. For example, partnerships can enable the public sector to draw on other organisations' capabilities to create unique combinations with its own assets—such combinations can create innovative new services.

It can be seen that one of the underlying processes that impacts public sector innovation is policy. Supportive policy is often needed as a "policy 'push' occurring at the early stage of implementation of an innovation initiative can increase its chances of success"<sup>26</sup>. This is particularly the case in new forms of public sector innovation such as commercialisation, which may require new policy, and certainly will require board level sponsorship when challenging (and therefore risky) projects are considered. Unfortunately national innovation policies appear to have almost exclusively focused on scientific research and technology transfer, rather than on public services such as education, health, and social welfare<sup>27</sup>. Interestingly, technology transfer policies recognise that universities need to be linked to the commercial sector, as neither sector has all of the capabilities required. Similarly, the public sector in isolation will, in many cases, not have all of the capabilities needed to generate the maximum level of innovation in public services.

Overall, Figure 3 indicates the different dimensions (i.e. 'types') of innovation that should each be considered as possible ways of dealing with the public sector funding crisis (as service efficiency alone will not be enough). A longitudinal study of public service innovations showed that applying different types of innovation can improve public service performance<sup>28</sup>. In addition to supportive policy, public sector innovation needs a specific framework by which it can be achieved (and later in this report we will discuss this further), as the public sector context is so different to the commercial one.

### Ownership models

It has been recognised that different models of ownership and governance of services can allow public sector organisations to innovate. Such models can allow the public sector to not only tap into new expertise and resources but also capitalise on their own capabilities<sup>29</sup>. There are various possible approaches to changing the governance of services, as shown by Table 1 overleaf.

Probably the simplest model is based on secondment as a route to filling key management roles. The benefits of seconding employees from the private sector to the public sector (and vice versa) have long been recognised and organisations such as the Whitehall Industry Group have played a key role in brokering such exchanges. Seconded employees benefit from gaining an increased knowledge of the public sector but most importantly, the public sector gains from an injection of enhanced commercial skills and experience.

Some individual public sector services can be outsourced, to commercial organisations that can prove that they are able to deliver a quality service at a lower cost. Obviously, a key question is "Can the activity be provided by a non-state provider?"<sup>30</sup> Relatively simple services such as refuse collection are often outsourced and in many cases the service itself is not enhanced. Procurement can play a key role in innovation. An investigation of construction projects in the Netherlands found that when services are purchased, the way in which the public sector and commercial partner worked together had a major influence on whether the project generated innovative solutions<sup>31</sup>.

Another important ownership model is "The Private Finance Initiative" (PFI) which was launched in the UK in 1992 to encourage the private sector to become more involved in the provision and enhancement of public services"<sup>32</sup>. The approach is not, however, without its critics: one group of researchers found little evidence of innovation on the part of the private sector in a PFI project to replace a local school<sup>33</sup>, and argued that there are significant problems with 'value for money', and the UK public sector should be given a wider range of procurement options<sup>34</sup>. In contrast, a study of 27 local authorities found that "the majority of study participants viewed PFI as an effective method for the delivery of educational assets" and recognised that the relationships between the different organisations involved are critical<sup>35</sup>. In driving innovation through PFI, the cultural differences between the private and public sector are also critical<sup>36</sup>.

Privatisation is the sale of public sector assets, which are not considered core to public sector work, or where the sale presents an attractive proposition to government. For example, in 2009, the government published a significant portfolio of assets available for sale to, or operation by the private sector<sup>37</sup>. In order to "continue to provide quality services cost effectively the Government must focus on those where it has a relative advantage in providing them directly, and on what it does best"<sup>38</sup>. However, this initiative is not simply about the sale of public assets; it also calls for commercialisation opportunities, partnerships, and revenue sharing arrangements. Delivery of services through partnerships has been considered as an emerging trend in the public sector for some time<sup>39</sup> but a 2009 National Audit Office report indicated that there are not enough examples of successful engagement between public sector bodies and private sector suppliers<sup>40</sup>.

Concessions are another useful vehicle for public sector organisations to concede direct management of an asset. These are an increasingly attractive ownership option being pursued by the UK public sector and revolve around granting exclusive use-rights to a private operator for specific assets over a defined period of time.

| Ownership models  | Description   | Examples  |
|---|---|---|
| 1 Secondment of management from outside the public sector | <p>Secondments from private and third sectors to public sector with a view to injecting specific expertise and skills.</p> <p>Relatively simple to do without making major changes to existing ownership or governance arrangements.</p>  | <p>Sir Philip Green (Arcadia Group) is leading the current Efficiency Review into government spending.</p> <p>Bruton Knowles (property consultants) have a secondment service and have successfully operated this model for estates management in local government, e.g. Suffolk County Council and City of Stoke on Trent.</p>   |
| 2 Outsourcing and procurement                             | <p>Outsourcing is often viewed as involving the contracting out of a business function - commonly one previously performed in-house - to an external provider</p> <p>Thus, services or business processes are operated by an outside contractor. This is a common model is for 'non-core' activities such as cleaning, security, facilities management etc.</p>   | <p>Finance &amp; Accounting, HR, estates, facilities management (e.g. Interserve in the UK Home Office), IT services (e.g. Cap Gemini in HMRC). Also website administration, leisure centre operation, occupational health, security, revenues &amp; benefits (council tax administration).</p>   |
| 3 Public-private partnership                              | <p>Public private partnerships (PPPs) are arrangements typified by joint working between the public and private sector. In the broadest sense, PPPs can cover all types of collaboration across the interface between the public and private sectors to deliver policies, services and infrastructure. Where delivery of public services involves private sector investment in infrastructure, the most common form of PPP is the Private Finance Initiative (PFI).</p>   | <p>920 PFI projects in the UK as of May 2010, including several hospitals (e.g. University Hospitals Coventry and Warwick) and further examples from prisons, schools and transport sectors.</p>  |
| 4 Privatisation   | <p>The full or partial sale of public assets to private individuals or companies.</p> <p>The private sector partner then owns and operates those assets according to contracted agreements.</p>   | <p>British Rail</p> <p>British Telecom</p> <p>British Gas</p> <p>France Telecom</p> <p>Japan Post</p>   |
| 5 Concession  | <p>A concession is a private business operated on another's property by contract or permit. Examples of such businesses include food and beverage operations, tennis and golf lessons, driving ranges, pro shops and gift stands, equestrian centres, electronic game arcades, amusement rides, bicycle rentals, vending machines. Concessions are governed by state, federal, and local laws, which vary by jurisdiction.</p>  | <p>Midland Expressway Limited (MEL) is a private company with the government concession to design, build, open and operate the 27 miles of the M6 Toll until 2054. After this time the road will be handed back to the government.</p>  |
| 6 Commercial partnerships                                 | <p>Private sector working in partnership with the public sector to develop and enhance services, with risks and rewards being shared.</p> <p>A collaborative arrangement delivering public benefits, with incentives in place for the private sector partner to grow the service.</p>   | <p>NHS shared business services</p> <p>Met Office Healthy Outlook<sup>®</sup> service</p> <p>Public Sector Broadband Aggregation (PSBA) Wales</p>   |
| 7 Emerging models   | <p>Social Enterprises are businesses or services with primarily social objectives whose surpluses are principally reinvested for that purpose in the community, rather than being driven by the need to maximise profit for shareholders and owners.</p> <p>Mutuals exist for the purpose of raising funds from their membership or customers (collectively called members), which can then be used to provide common services to all members of the organisation or society. A mutual is therefore owned by, and run for the benefit of, its members - it has no external shareholders to pay in the form of dividends, and as such does not usually seek to maximize and make large profits or capital gains.</p> | <p>Central Surrey Health (includes the Leatherhead Community Hospital) is a not-for-profit social enterprise owned by the nurses and therapists who run it. High profile examples of social enterprises include The Big Issue, the Eden Project and Jamie Oliver's restaurant Fifteen.</p> <p>The Pathfinder scheme is part of the Government's commitment to support the innovation and entrepreneurialism of front line staff. Twelve public service spin-offs (including the 157 Group, Department of Health's London and SE Learning Disability Team &amp; NE Essex PCT's community interest company) are acting as pilots to determine what type of support and structures will best enable the development of employee-led mutuals.</p> |

Table 1: Ownership models in public sector innovation

A major draw-back of the existing forms of public-private partnership has pivoted around their rigidity and this has meant that the complexity and evolving nature of public service provision has not been fully addressed. For example, it is now acknowledged that the extended contractual commitments of PFI projects have led to elevated costs of ownership to the public sector and less flexibility in terms of responding to changing requirements.

In order to develop the outcomes that the public sector requires: less costly services and new services (without increased investment) – it is clear that new forms of intra-organisational cooperation between the public and private sector are needed. Commercialisation is the focus of this report but there are other forms of cooperation.

Emerging models include mutuals, co-operatives, social enterprises and community interest companies. Here, ownership and management is vested not with a private sector partner but with the staff or customers that have a stake in the success of the venture. Mutuals are equivalent to management buy-outs or spin-outs and the government's Pathfinder initiative, with mentoring from John Lewis Partnership, offers exciting prospects to innovate in this area. Emerging models are likely to change further and go beyond the examples included in Table 1. However, it is clear that ownership considerations are vitally important and a wider understanding of this dimension of public service innovation is critical in the future – for both public sector asset owners and private sector partners alike.

The previous sections of this report have considered the characteristics of innovation in the public sector: now it is important to consider the barriers to innovation and how these can be overcome.

### Barriers to innovation

There are a number of barriers to innovation in the public sector that are identified in the literature and the first of these is resistance to change. In a major survey study of US local government innovations it was found that the characteristics of the managers involved (e.g. age, tenure, and education) influenced whether innovative ideas were adopted<sup>41</sup>. It has been argued that some public sector organisations aim to maintain service performance rather than striving to innovate or improve<sup>42</sup>. This is because, "many public-sector organizations are monopolies lacking competitive pressure to innovate and are characterized as large bureaucratic structures that seek stability and resist change and disruption"<sup>43</sup>. Within the UK resistance to change may be of particular relevance, given that the European Values Survey showed that UK officials are highly motivated by conformity to social norms<sup>44</sup>.

A literature review carried out by the UK Cabinet Office identified that risk aversion embedded in the culture of the public sector is a key barrier to innovation<sup>45</sup>. Innovation can involve risk for both ministers and civil servants. Commenting on public sector innovation in Australia, it was said that: if a new approach to policy or administration fails, there will of course be criticism, however, in the case of successful innovation the minister or agency is often criticised for not having implemented it sooner<sup>46</sup>.

In the UK, civil servants tend to see their own senior managers as the primary source of innovation in government<sup>47</sup>. The National Audit Office also report that most UK public sector innovation is generated and driven by senior management. A study of innovation in healthcare found that centralisation reduces innovativeness<sup>48</sup>. This problem was recognised by the 2009 report, Putting the Frontline First, which called for decentralised decision-making and "freeing up the frontline to innovate and collaborate"<sup>49</sup>. A major US study found that front line staff and middle managers are the most frequent initiators of public management innovations<sup>50</sup>, whereas another study in Denmark, France and the United States found that advisory groups from the public can play an important role<sup>51</sup>. A number of new initiatives have been launched such as encouraging civil servants and the public to submit ideas the address the UK 'Spending Challenge'<sup>52</sup>.

### Overcoming the barriers

There are barriers to innovation in public services but there has also been significant research on how they can be overcome. Sanford Borins is a Professor of Public Management in Canada who has studied examples of successful public sector innovations in North America and has published widely<sup>53</sup>. His research gives some of the most useful insights on how the barriers to innovation can be overcome<sup>54</sup>. Collating these with the findings of other researchers, allowed us to identify the four main ways in which the barriers to public sector innovation can be overcome. These are:

- 1) By generating a public sector culture that is open to new ideas<sup>55</sup>, that empowers communities, citizens, and staff<sup>56</sup>, and supports learning<sup>57</sup>. Such cultures should also enable risk taking, be forward looking, creative and pro-active<sup>58</sup>.
- 2) Through excellent management practices: including clear communication and a sound implementation process<sup>59</sup>, plus the use of a systems approach and IT<sup>60</sup>.
- 3) By generating good ideas, having clear drivers, and strong incentives<sup>61</sup>.
- 4) Through involving the private or voluntary sectors<sup>62</sup>.

## The context of public sector innovation

No discussion of public sector innovation would be complete without covering the issue of context. In the commercial sector, the circumstances facing each and every company (the 'context') means that there are no simple solutions for managing innovation, and even best practice is hard to transfer (it must be adapted rather than adopted)<sup>63</sup>. This is true even though companies are operating in a global competitive environment. In the public sector the role of context is even more important, as innovation needs to take place within a very specific national or local environment.

One empirical study of UK local government showed that the likelihood of an innovation being adopted depends on the unique circumstances: "adoption of innovation is complex and contingent – different factors drive the diffusion of different types of innovation"<sup>64</sup>. This aligns with the finding from another study that an innovation needs to be adapted to the local context, if it is to be successful<sup>65</sup>. Understanding that context is a complex process and it is important to consider stakeholders and the environment in which they operate<sup>66</sup>. Any innovation frameworks must therefore be flexible and adaptable to the specific context because "the determinants of organizational innovativeness interact in a complex, unpredictable, and nongeneralizable way with one another"<sup>67</sup>.

### Summary of public sector innovation research

This review of previous research on innovation in the public sector has shown that:

- ➔ The understanding of the nature of innovation in the public sector is still emerging. This is partly because public sector innovation is extremely dependent on the context in which it was developed and implemented. Consequently, there is an urgent need for the development of frameworks, tools and techniques specifically for managing innovation in the public sector. To address this, we proposed a tentative framework to outline the dimensions of innovation in public services.
- ➔ Much of the innovation in the past has focused on process efficiency, or on approaches such as outsourcing and privatisation. Such incremental innovations are important but by focusing solely on efficiency gains the public sector may be failing to exploit its assets and expertise to their full potential.
- ➔ Commercialisation is now emerging as a way of innovating. This consists of partnerships with commercial organisations, which enable new or enhanced services to be developed, based on the combination of capabilities and assets from the public and private sectors. A crucial aspect of such partnerships is that they generate new value that is shared with the public sector.
- ➔ The barriers to public sector innovation are significant but they can be overcome through careful analysis and suitable actions.

Having considered the findings of previous research on public sector innovation, the next section of this report describes the results of a 2010 survey of civil servants' views on commercialisation.

## Civil servants' views on commercialisation

Since new forms of commercial partnerships can play a role in the delivery of innovative services, Civil Service World conducted a survey of civil servants' views on commercialisation. In the survey commercialisation was defined as: "the joint development of enhanced public services by public and private sector organisations working in partnership, and the ongoing supply of these services to public sector organisations with the commensurate sharing of both risks and rewards by both parties". The survey was conducted in June 2010 (by which time the new coalition government had announced its key policies). The online survey was sent to 22,000 civil servants in a wide range of job roles and across all grades, including subscribers to Civil Service World, attendees from the Civil Service Live event, and registered users of the Civil Service Live Network. Issues covered in the survey include the awareness, understanding, importance, and environment for commercialisation in the UK public sector.

In total, 661 responses were received (3%), mostly from long serving middle managers, representing a good functional spread. Such a response rate is typical for survey research, but was somewhat lower than usual for this sample of civil servants. The responses to the 12 questions in the survey were collected online. They included pre-defined responses; rankings, and free text responses. This section describes the responses for each question, followed by a summary of key findings.

### Survey results

#### The importance of commercialisation

The first question asked: "How important will commercialisation, as defined above, be in the next 2-3 years in your area of the UK public sector?" Figure 4 shows that 68% of civil servants thought that commercialisation of public services will be more or much more important over the next 2-3 years.

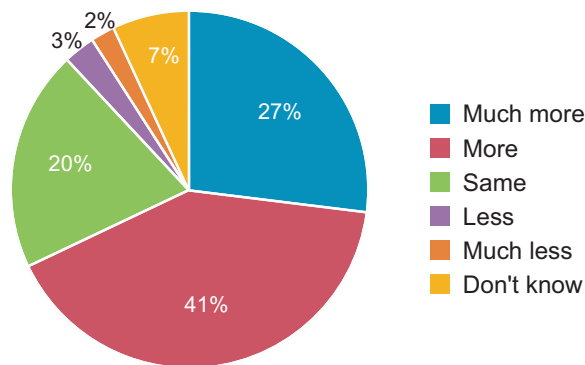


Figure 4: The importance of commercialisation

#### Areas working successfully with the private sector

Question 2 asked: "Which part of the UK public sector do you feel is most successful at working with the private sector in partnership arrangements sharing rewards and risks?" Of the options presented, only one could be selected. The departments reported as being most successful at working with the private sector were: environment/waste, housing, transport, health, defence and local authorities. Figure 5 shows the result, expressed in terms of the number of responses (out of 661). Note that 28 of the 39 'other' responses were 'none': so a significant minority (~5%) did not think that any area of the civil service was successful at working with the private sector. This indicates that more information needs to be disseminated on successful examples of commercial partnerships.

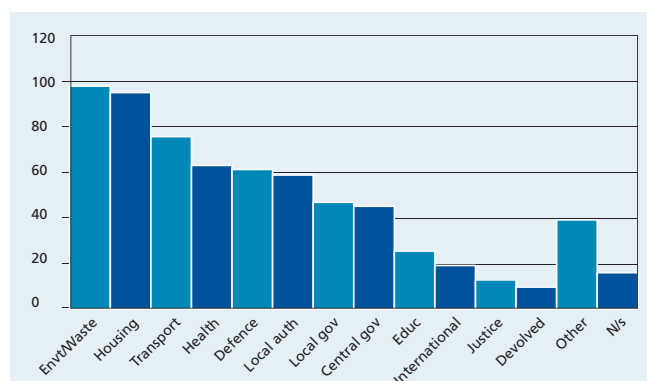


Figure 5: Areas of the public sector successfully working with the private sector

**Perceived barriers to commercialisation**

The third question asked: "What are the major barriers to commercialisation in the UK public sector?" and the responses ranked in order of importance. The barrier most frequently reported as 'most important' was conflicts of interest, followed by skills and awareness. Other options were lack of partners, and lack of incentives. Judging from some of the comments made by respondents in answering later questions, the objective of private sector partners to make a profit was perceived to be in conflict with public service.

**Attributes of ideal private sector partners**

Question 4 sought to identify the desired attributes of commercial partners asking: "Please select three aspects which make the ideal private sector partner". The responses in Figure 6 indicate a strong preference for commercial flexibility, followed by trust, openness to share skills, and willingness to share risks. Interestingly, the importance of experience working with the public sector was only ranked number 5. One respondent described in their view the key attribute of an ideal partner was: "Integrity and not putting profit before the public".

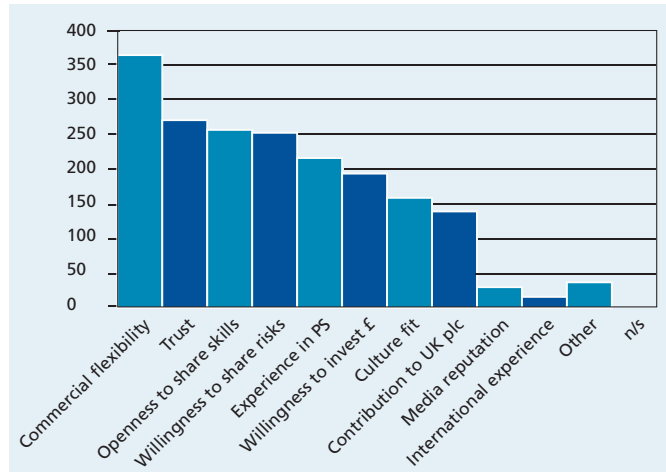


Figure 6: Ideal characteristics of commercial partners

**The understanding of commercialisation**

Question 5 asked civil servants: "How well do you understand commercialisation?" Figure 7 shows that 78% of respondents felt they understood commercialisation 'very well', 'well' or 'adequately'. The more senior respondents in the sample tended to perceive they had a better understanding. The remaining 22% felt that they did not understand commercialisation.

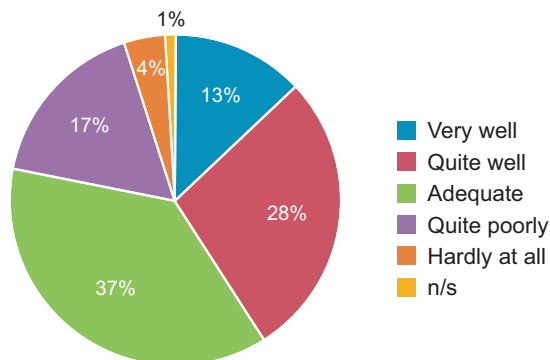
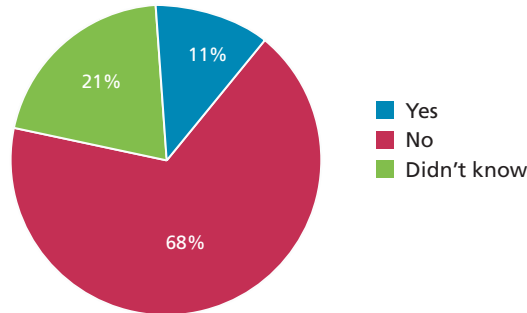


Figure 7: Civil servants' understanding of commercialisation

The high level of understanding is encouraging, since commercialisation is still a developing area but it must be contrasted against answers to a later question. This showed that very few respondents named commercialisation projects as examples of successful service innovation (perhaps indicating that the level of understanding was not as high as perceived).

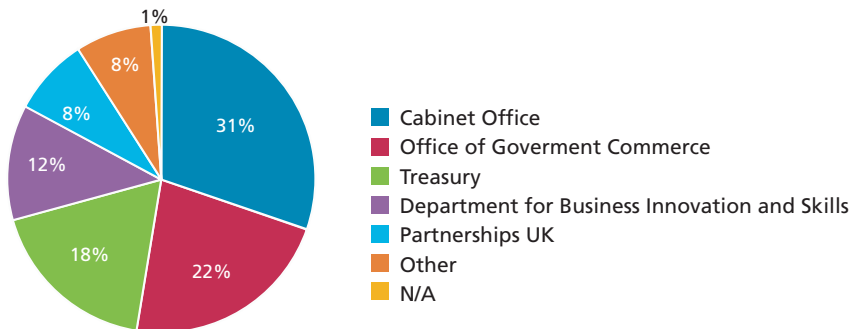
**Guidance on commercialisation**

Question 6 asked: "Do you think that there is adequate guidance and support available to you on making commercialisation work in the UK public sector?" Figure 8 shows that only 11% felt that there was adequate guidance and support. The majority (68%) felt that there was not, and 21% didn't know.



**Figure 8: Adequacy of the support for commercialisation**

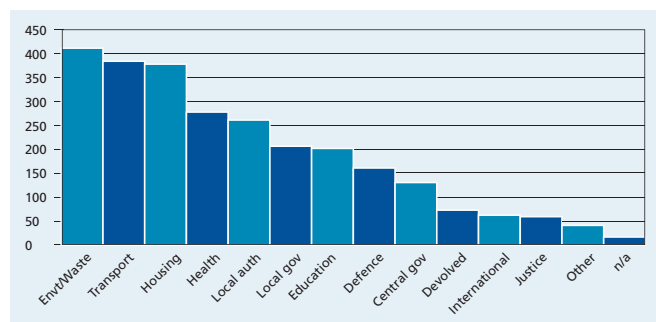
Also looking at the issue of the availability of guidance, Question 7 asked "Who do you think should be providing this support and guidance?" There were a range of responses, as shown in Figure 9: 31% said the Cabinet Office; 22% the Office of Government Commerce (OGC); 18% said the Treasury (HMT); 12% the Department for Business, Innovation and Skills (BIS); and 8% said Partnerships UK. Since the 15th June, the OGC has been made part of the new Efficiency and Reform Group, within the Cabinet Office. The current fast changing organisational landscape in the public sector means that there is a need for clarity on where the main support for public sector innovation should come from.



**Figure 9: Perceptions on which department should provide guidance**

**Potential for commercialisation**

Question 8 asked: "What areas of the UK public sector do you think have the most potential for commercialisation?" Here, respondents were able to 'select all that apply'. Figure 10 shows that environment/waste, transport, and housing were the mentioned most often. Comparing Figure 10 with Figure 5, it can be seen that there is a strong correspondence between where there are thought to be further opportunities for commercialisation and where it is already perceived to have been successful. (A notable exception to this was that defence was not often mentioned as having potential for commercialisation).



**Figure 10: Potential for public sector commercialisation**

Commercialisation will not be applicable in every situation and Question 9 (which was open-ended) asked "Which public sector functions will never see greater commercial involvement?" Of the 500 comments made in response to Question 9, there was a good deal of diversity. The most common responses included: defence and security (99), police (43), criminal Justice (41), policy (39), central government (34), health (34), welfare / benefits (25), HMRC (23), treasury (23), and tax (23). A total of 35 respondents thought that no public sector functions would ever see greater commercial involvement, whereas 23 thought all departments would see more commercial involvement (saying things like, "With the current Government agenda, all areas will be affected"). Some civil servants commented on the importance of certain departments remaining unconnected with the commercial sector. Typical comments included, "The justice system should remain uninvolved with the commercialisation process to retain an objective point of view"; and, "Wherever private partnerships are used cost increases and I feel civil servants have proved time and again they have the skills to carry out the job - without profit 'influencing decisions'".

### Examples of successful service innovation

Question 10 sought to identify examples of innovation known to the respondents, asking: "Can you name a specific example of successful service innovation from the UK public sector?" Respondents were prompted to enter details of the department involved and the specific project.

In responding to the prompt for department examples, there were 210 responses but 53 of these were either 'no' (i.e. the respondent could not name any department which had been involved in a successful service innovation) or 'none' (i.e. there are no examples of successful service innovation). Of the remaining responses, there was a good deal of variety and the departments mentioned more than once included: defence (9 mentions), job centres (5 mentions), land registry (4 mentions), local council (4 mentions), DEFRA (4 mentions), and the Met Office (3 mentions). Only 146 respondents (22%) named a specific project example, showing that examples of good service innovation are not widely known. The projects mentioned included Met Office forecasting (3 mentions), and NHS Shared Business Services (2 mentions) and web-based projects such as tax renewal and driving licences. Most of the examples of projects given were service transformation, e.g. DVLA on-licence tax renewals, and HMRC tax returns on-line. Very few of the examples were more innovative commercial partnerships (although the Public Sector Broadband Aggregation (PSBA) in Wales, the Met Office Healthy Outlook® service and Flexible New Deal were identified).

### Public sector functions driving commercialisation

Question 11 asked: "Which functions in your organisation are responsible for suggesting new ways to deliver services, for example, considering how to increase private sector involvement?" Respondents were able to indicate all of the functions that they thought suggested new ways to deliver services. Figure 11 shows that the function most frequent identified was procurement (mentioned by 277 respondents / 42%)

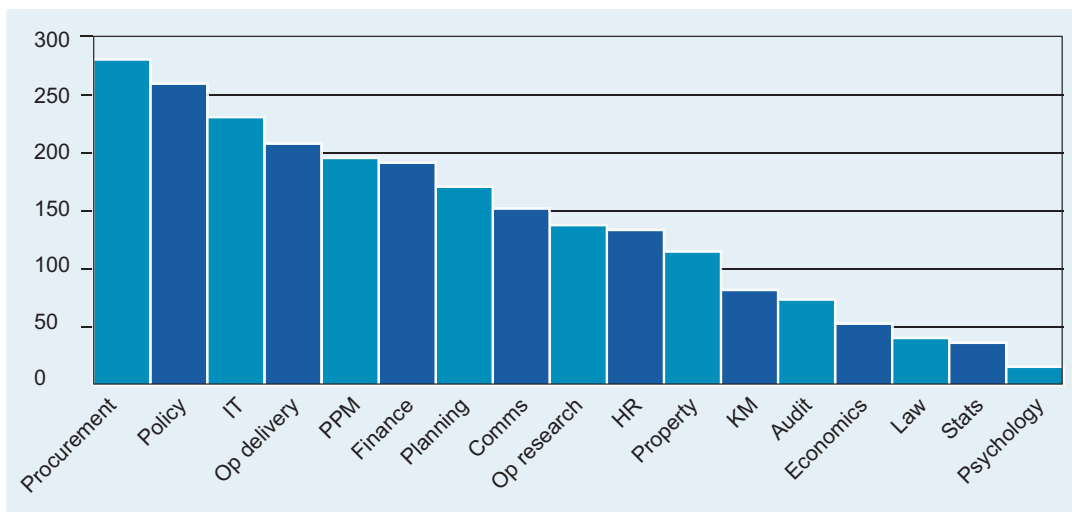


Figure 11: Public sector functional areas and innovation



## Civil servants' opinions on commercialisation

The final question in the survey (Question 12) asked for respondents for their additional comments. Whilst it was a minority, there were a significant number of negative sentiments expressed regarding existing commercial arrangements, and several respondents believed that such arrangements actually increased costs and reduced the quality of public services.

Some of the negative sentiments included:

- "Commerce has no place in public service delivery"
- "Civil service jobs should be done by civil servants"
- "A private company can never be impartial"
- "In 95% of cases we either ending up paying more for less, or we end up with short term gain for long term pain"
- "Private companies see the public sector as a cash cow to be milked"
- "It is a failed strategy that costs more than doing the job in house"
- "Wherever private partnerships are used cost increases"
- "They bid cheap and then can't deliver"
- "They are out to rip the public sector off"
- "There is NO success [working with the private sector] - it only gives rich people the chance to make money, to the cost of the poor"
- "I'm sure they ALL will [see greater commercial involvement], at least while this government has the power to outsource functions to their rich mates"
- "It is hard to imagine any sector escaping this ill-conceived and poorly reasoned experiment with institutional structures."

Some of the positive sentiments expressed include:

- "All could have greater commercial involvement."
- "All should have a degree of commercial involvement."
- "No function should be exempt from commercial involvement as long as appropriate measures are put in place to protect public data and money."
- "There is no limit but the risk becomes greater as commercial involvement increases."

## Summary of main findings of the survey

The 661 respondents to the survey represent a range of grades and functions in the civil service. The analysis of their responses produced six main findings:

- In total, 68% of respondents felt that commercialisation of public services will be more or much more important over the next 2-3 years. They perceived that the three departments where commercialisation has been most successful and where it will continue to be successful were: environment & waste, housing, and transport.
- 78% of respondents felt that they understood commercialisation 'very well', 'well' or 'adequately' but only 11% felt that adequate guidance and support was available on making commercialisation work in the UK public sector. Over half felt that the Cabinet Office/OGC were responsible for providing such support and guidance.
- The most important barriers to commercialisation were perceived to be conflicts of interest and lack of skills.
- The top three attributes of an ideal private sector partner were perceived to be: commercial flexibility, trust, and willingness to share skills.
- The top three functions thought to be responsible for suggesting new ways to deliver services are: procurement, policy and IT.
- A minority of respondents were vocal in their criticism of the concept of working with commercial partners.

Since the survey showed that there is not enough information on successful commercialisation in the UK public sector, two of the examples mentioned by respondents—the Public Sector Broadband Aggregation (PSBA) in Wales and the Met Office Healthy Outlook® programme were selected for the next phase of our research. The resulting case studies are presented in the following sections.

## Case study: Public Sector Broadband Aggregation (PSBA) Wales<sup>68</sup>

### Innovative context

Worldwide, it is recognised that fast internet access is creating new opportunities and changing the way companies, the public sector and the public behave, and interact. UK public sector organizations have traditionally arranged broadband services on an individual basis to meet their specific needs. As a number of large scale broadband and networking contracts were coming to an end, The Welsh Assembly Government recognised an opportunity to develop a common solution. Today, the PSBA network provides the Welsh public sector with broadband internet capability, as well as access to a range of a range of pan-public sector systems, which support improved service delivery. PSBA started as a project within the Broadband Wales programme, a wider initiative to provide broadband to every Welsh household. This remains a major challenge in rural parts of Wales where traditional infrastructure options are not cost effective, and activities are ongoing. This programme ran until April 2007, at which time PSBA became a programme in its own right. Solutions to Broadband Wales and PSBA would simply not have happened without innovative thinking and a creative approach to solving the many technical and organisational issues that arose.

The case of the Public Sector Broadband Aggregation (PSBA) in Wales shows that generating innovative services can require the public sector to develop new ways of working with partners from the private sector. Quite simply, few organisations have all of the expertise and resources needed to generate radical innovations.

### The situation

In 2001-2 it had been recognized at a ministerial level that broadband access was critical to the education, the Welsh economy, and the public sector. However, at the time access was low (particularly in rural areas), and the investment needed to build the infrastructure was so high that it was questionable whether the private sector would take the risk to develop broadband access in areas with low population density, and correspondingly low potential revenues. Complicating this further was the fact that the regulatory authorities and the EU were looking critically at the efforts of governments in various European countries to subsidise broadband, which was seen as 'State Aid': interfering with the market.

It was in this climate that the Broadband Wales initiative was launched by the Welsh Assembly Government, with the aim of stimulating public broadband adoption, improving broadband access in rural areas, improving access and reducing the cost for businesses, and improving the availability of broadband for public services. Quite how these targets were going to be achieved was not clear, given that the Welsh Assembly was not allowed to install or commission the necessary infrastructure due to EU regulations on State Aid. Additionally, with OFCOM still in the planning stages there were five different UK regulators that would need to be satisfied.

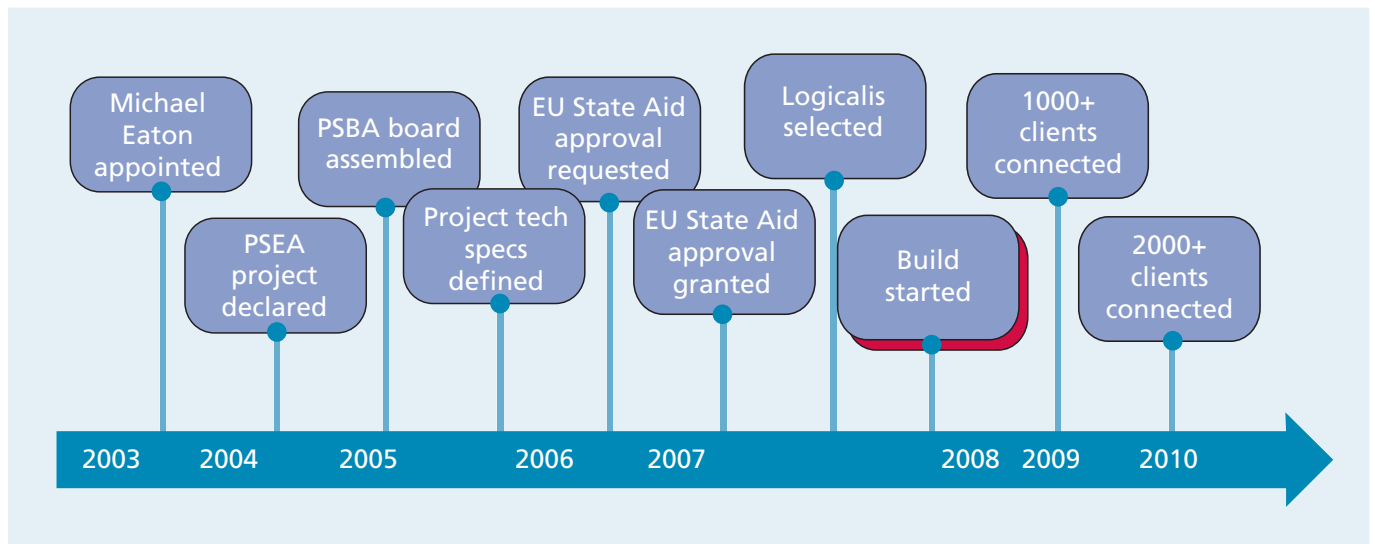
In September 2003 Michael Eaton was hired as a senior civil servant in the Welsh Assembly Government, managing a small team as Director of the Broadband Wales Unit. His background was in the telecommunications and high technology industries, in a number of companies including several start-ups. This background helped him to deal with the succession of technical and commercial decisions that needed to be made but he still needed to learn about the legislative, political, and organisational issues. There were many barriers which meant that the success was by no means a certainty when the programme started.

### The journey

The first challenge for the PSBA team was to define the scope of their project and its key components, including a technical definition of broadband (i.e. minimum network speed in bits per second) and developing a suitable explanation (as there was no Welsh word for Broadband). The second and related challenge was to identify all of the potential stakeholders, and to identify their perspectives on the project. From this analysis it was clear that "we were going to have to do things differently... and existing guidelines for public sector innovation in Wales would not provide all of the answers. Similarly, it was clear that the team did not have all of the expertise and contacts necessary to solve all of the problems", says Eaton.

At the time, the Welsh Assembly Government was experiencing significant growth. As a result, Eaton and his team were allocated office space seven miles from the Welsh Assembly. As the team's challenge was so different to the norm, the location, says Eaton, allowed them to develop their own team culture and approach to problem-solving. It also meant that they could respond quickly to new demands. Michael's private sector background helped because he knew how to manage technology projects, but had no experience of government projects. He soon discovered that elections and changes in local government can have a major impact on the progress of a project. There were two major factors in helping him negotiate the intricacies of local, national and European government. Firstly, the Welsh Government assigned a very experienced civil servant to the PSBA team to mentor Eaton on these issues. Secondly, a minister acted as a Broadband Wales programme and PSBA programme sponsor. "It really mattered to know that we had ministerial support... and it was fundamentally important that they acknowledged that this project was risky", says Eaton.

During 2005 a major step was to gather the key stakeholders and collect their inputs on what was essential to the project. This consisted of many meetings with groups such as NHS trusts and schools (who collectively represented a major part of the project), private sector providers such as BT, and the 22 local authorities of Wales. The committee worked together to define the requirements and specification of the PSBA network.



### PSBA project timeline

Before the project could be put out to tender, the PSBA team had to apply for State Aid clearance, since the large scale of the project (~£150M) could be seen as government intervention, distorting the market. Clearance was applied for in October 2006, and granted in May 2007. In the meantime, the PSBA team continued to work with stakeholders to define the commercial terms in detail. Soon after approval was given, the project went out to tender.

Evaluating the proposals brought another first, since they were working within the newly developed Competitive Dialogue process (a public sector purchasing framework for large scale investment). Working closely with procurement and legal proved invaluable at this stage, as everyone was learning how to use this new method. From the proposals received, Logicalis were selected as the supplier to design, install, operate and market the PSBA network to public sector bodies. This was partly on the basis that, as a systems integrator, they bring a range of skills to act as a managed service provider. They were also able to exploit the value chain; to select and define specific network components from across the telecoms supply chain to match the requirements of the Welsh public sector. It also meant that the regulatory framework which governed them allowed them to deliver the whole package, where monopolies regulations may have excluded pure telecoms companies from acting as the sole provider.

The contract was awarded in August 2007. Eaton cautions that relationships, key to any business partnership, can be less close in public contracts. He feels that "negotiating and coming together to understand one another at this early stage was a critical step in the success of the project". He praised the commitment and flexibility of Logicalis, demonstrated when they immediately decided to incorporate new technologies into their solution at a very early stage, due to changes in this fast paced technology market.

#### What is PSBA?

- Public Sector Broadband Aggregation
- A managed service providing broadband internet, connection to a range of public sector networks, and network management and administration to Welsh public sector clients

#### Who are the customers?

- All public sector organizations in Wales can use the service: schools, hospitals, GP surgeries, local councils, forestry commission...

#### What are the benefits?

- Public sector management of the network means user needs are recognised and addressed
- More services: public sector network connectivity, managed security and internet usage policies, future capacity planning, centralised contract negotiation
- Lower costs: an average 20% saving over existing contracts

## The innovation delivered

In 18 months, from September 2007 to February 2009, the initial build was completed, during which over 1000 sites were connected to the PSBA network. Since then, through the dedicated sales and marketing efforts by Logicalis alongside the promotion and endorsement activities of the PSBA team, the number of subscribers has more than doubled, and continues to grow.

Welsh Assembly Government maintains top level control of the PSBA network, in partnership with representatives of the key user groups. They also act as advocates for the network, promoting its benefits. Logicalis, the commercial partner, manage the infrastructure, user support, and operation of the network. They also manage the sales and marketing, which is important because the remaining public sector clients were until recently free to choose whether to sign up. The current situation is 'adopt or justify'; public bodies are now required to give explicit justification for not signing up to the network.

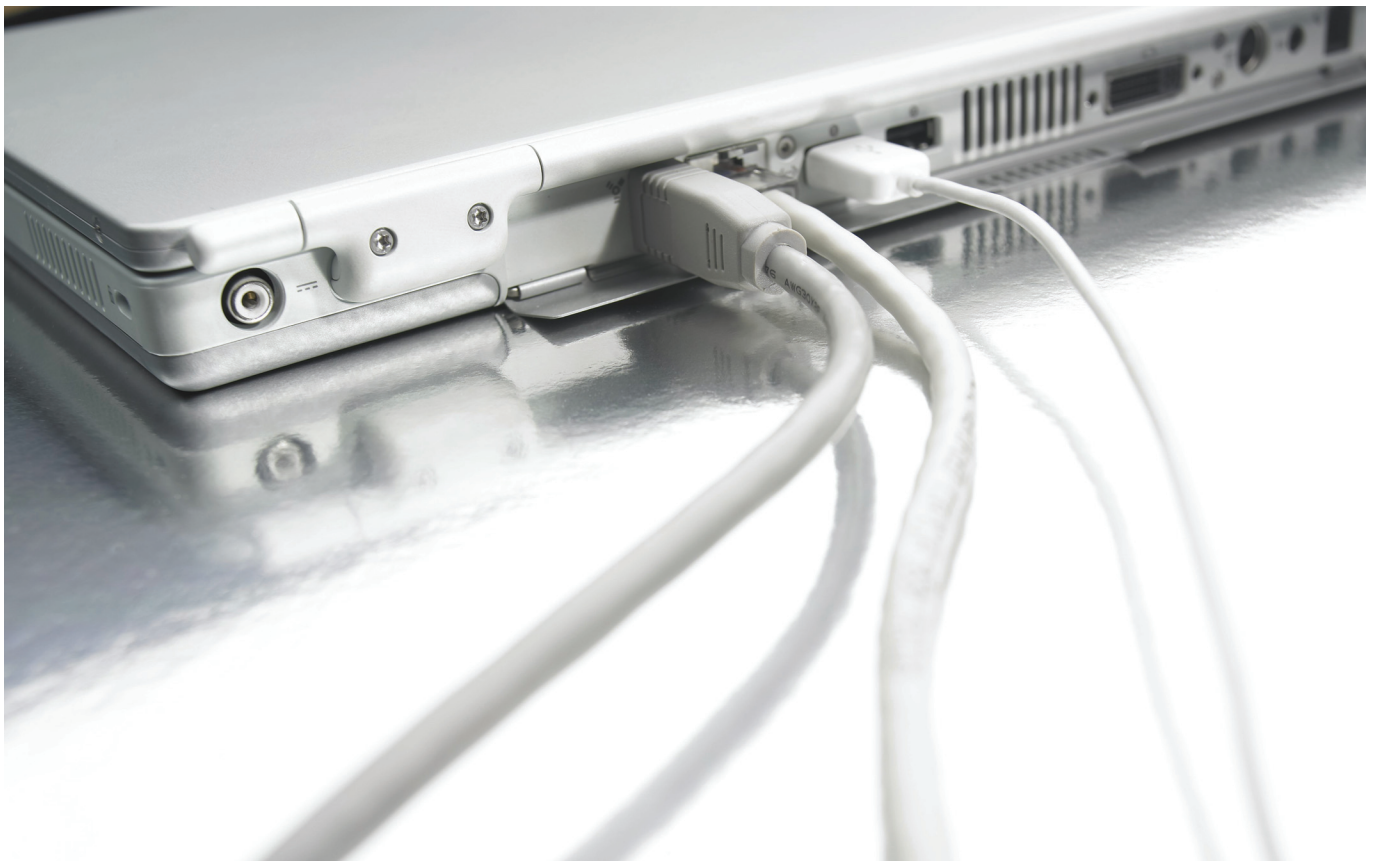
So who benefits? Welsh Assembly Government and other Welsh public sector bodies save a large amount on broadband and network infrastructure contracts – an average of 20%. They can also save money in the future that would have been spent on legal services and negotiation time, since they can now centralise the contract renewal process. Public sector organizations not directly funded by the Welsh Assembly benefit in a number of ways: cross-network connectivity, managed security and Internet usage policy, and future capacity planning. Given that it also costs an average of 20% less than existing contracts, it is easy to see why the adoption rate has been so high. Logicalis make a profit operating the network, and increase their profit potential with each new subscription.

Welsh Assembly allocates around £6M per year in support of the PSBA activity, some of which is used to finance the central team. The total expenditure in 2010 is expected to be around £14M. Over time, central funding is expected to reduce to around 20% of the overall spend.

## Lessons learnt

What can be learnt from this innovation project? Michael Eaton says he couldn't have done it without an experienced civil servant acting as mentor and guide, especially in the early days of his transition from the public sector. On the other hand his commercial experience was crucial to the civil service in negotiating with commercial organisations. Similarly, without the involvement the commercial partner Logicalis, PSBA would not have had the technical capability to design and implement the network, or the commercial incentive to grow.

Eaton further believes that the attitude of ministers and senior colleagues to acknowledge and share risk is the only way that public sector radical innovations will happen—because innovation is inherently risky. He is, "genuinely impressed with the way the Civil Service is pushing the innovation agenda and the recognition that innovation is not without risk, but risks can and must be managed". He cautions that without this encouragement and support, those less comfortable with risk will simply not take on innovation projects.



## Case study: Healthy Outlook® - Met Office health forecasting<sup>69</sup>

### Innovative context

The Met Office, a Trading Fund since 1996, is a government agency owned by the Ministry of Defence. It provides weather and climate services to various government departments, typically within a defined service level agreement. As a member of the World Meteorological Organization, the Met Office works internationally with other national meteorological services, enabling global earth monitoring<sup>70</sup>, data exchange and weather forecasting capabilities. There is also a competitive market for weather forecasting services both within the UK and internationally. Forecasting services are essential for a range of commercial customer sectors, including utilities, transport, construction and food retail companies, whose service demands can change dramatically based on changes in the weather. The Met Office also provides services to media organizations, supporting the production of weather forecasts for the BBC, amongst others. In nearly all of these markets, the Met Office is in competition with a number of other organisations operating within the UK and internationally. New revenue generating opportunities are high on the Met Office agenda and one of the opportunities identified was health forecasting.

The case of Healthy Outlook®, a successful health forecasting service developed by the Met Office, shows how partnerships between public and private sector organizations can bring novel solutions that provide genuine benefits for all of the parties involved.

### The situation

The idea for health forecasting was developed over 10 years ago. Dr William Bird, a general practitioner (GP), was interested in the idea that demands on health services varied according to weather conditions. As an idea with great potential for developing new services, and offering benefits to the nation's healthcare system, Dr Bird was employed by the Met Office to take the idea further.

With the knowledge that the demand for health services varied according to the weather, it was clear that this information could be useful for planning resources in the healthcare system. Quite how it would work, and precisely what the relationships were between specific weather conditions and specific health conditions needed further investigation.

### The journey

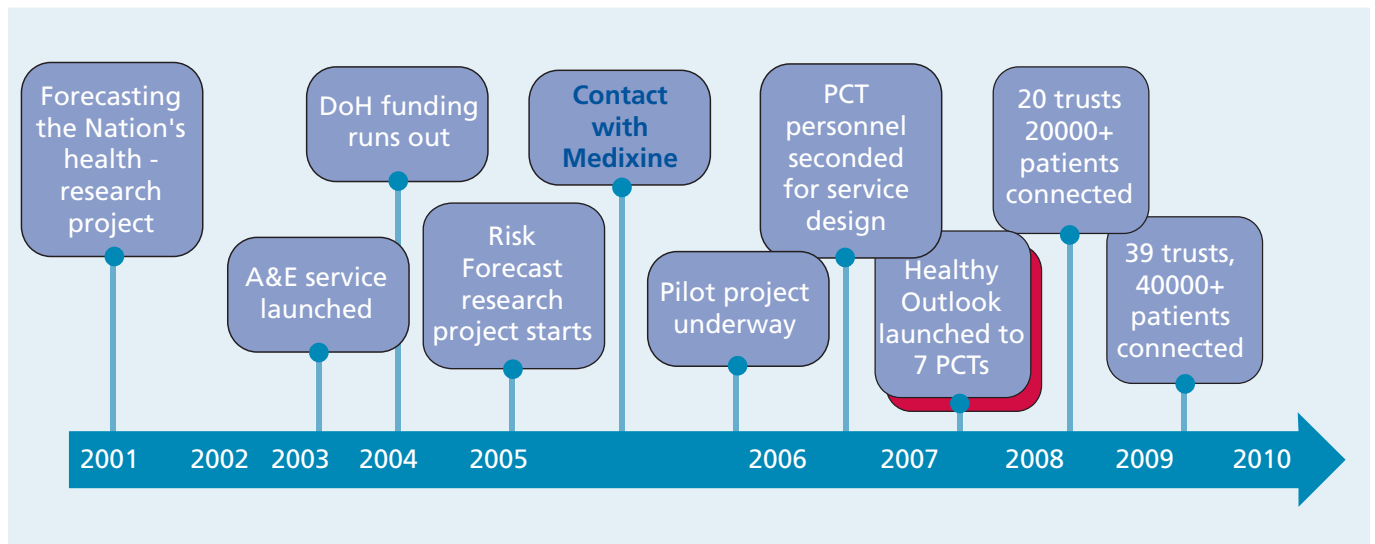
From 2001-2003, the Met Office undertook a research programme 'Forecasting the Nation's Health', which was funded for two years by a Treasury 'Invest to Save' grant. The key focus of this work, under the leadership of Dr Bird, was to develop the NHS workload forecast: a model that predicts the variations in service demand with changing weather conditions, with a particular focus on temperature. The services which the Met Office originally planned to investigate were hospital beds, the ambulance service, GP surgeries, accident and emergency (A&E) departments, and NHS Direct (the UK medical helpline). The project began with three key assumptions: (1) It is possible to forecast demand in the NHS; (2) The NHS can respond proactively to these forecasts; and (3) There will be a measurable benefit both for patients and the NHS following an appropriate response to these forecasts.

Following the investigation, the team developed a model which could predict changes in hospital workload. This model was developed as a service. Faxes were sent out to 40 hospitals on a weekly basis, alerting them to anticipated changes in hospital workload. The service was initially funded centrally, and offered free of charge to the hospitals. When central funding for the programme ran out in 2004, hospitals were informed that they had to pay to continue to receive these alerts. The customer base shrank radically to one hospital!

Wayne Elliot, Head of Health Forecasting, explained why the service was under-utilised by the hospitals. At that time, the information tended not to feature in decision-making for resource planning. Looking back to the initial assumptions, the NHS was not set up to respond proactively to the forecasts. Over recent years, the situation changed with many NHS trusts giving more attention to the external factors such as the weather which influence the demand for NHS resources. This indicates that efficient resource management is now a matter of concern at the highest levels, and this may open up a new channel for this information. With this in mind the Met Office is now working with Cardiff and Southampton Universities to refine their capability in this area, in order to deliver a more sophisticated NHS workload prediction tool.

From 2005, the Met Office used internal funds to develop a new predictive model focusing on specific respiratory conditions such as Chronic Obstructive Pulmonary Disease (COPD). The alerts were now e-mail based and took account of a variety of inputs in forecasting risk. The forecast took account of weather patterns, seasonality affects, and current known levels of respiratory viruses in a region. This service was piloted across PCTs and practices in 8 Strategic Health Authorities.

The real breakthrough for the Health Forecasting service came in 2006 when following a number of facilitated workshops with customers to understand why their customers seemed slow to make use of their alerting service, a chance meeting led to an introduction to the TeleHealth company Medixine. A meeting was arranged with Medixine to discuss how using their novel technology the service could be made easier for customers to use and more efficient to roll out. By the end of the day, Medixine had mocked up a demo of an automated voice-based alert service. Medixine were offering two things. First, a proprietary technology platform that made automated calls to patients, delivering an interactive pre-recorded message. Second, and just as critical, their novel service delivery model offered a new commercial perspective which offered clear incentives to increase uptake. Medixine also had experience of the General Practitioner market. The Met Office had previously worked with the Department for Health, and larger organisations such as hospitals. A formal relationship was quickly established between the Met Office and Medixine, and by winter 2006 the new service was being piloted in the South West, in Cornwall, an innovative PCT which has since worked with the Met Office in developing a spin-off service to alert sufferers of Seasonal Affective Disorder.



Healthy Outlook® project timeline

### The innovation delivered

The results of the pilot scheme were very encouraging: Practices adopting the service reported a 52% reduction in hospital admissions. With these positive results, and with Medixine on board, the service was promoted to Primary Care Trusts across the country. The expansion of the service was impressive. From an initial base of one trust (400 patients), Healthy Outlook® was launched as full service to 8 PCTs in 2007 (8000 patients). This increased to 20 trusts in 2008 (20,000 patients) and 39 trusts in 2009 (40,000 patients).

### What is Healthy Outlook®?

- Alerts are generated when specific risk factors for people with Chronic Obstructive Pulmonary Disease (COPD) are identified. These risk factors include adverse weather conditions, and other factors such as infectious diseases. Typically there are 4-6 instances per year of these events, which are monitored on a regional basis.
- When the risk level is high, a pre-recorded message is called through to patients' home telephones. The message prompts them to take action to stay well, e.g. to check stocks of medications and to keep living areas within a specified temperature range. The warnings are available in 8 different languages.
- Patients are given a 'patient pack' when they are signed up for the service by their GP. The pack provides background information on the service, room thermometers, and advice on how to stay well if you suffer from COPD.
- GPs are informed in advance (by email) of patients being called. They also receive a monthly report by email summarising the activity for their patients.
- The Healthy Outlook® service is provided by the Met Office. Medixine, a Finnish tele-health company, are a sub-contractor. Medixine systems are hosted on the NHS secure network.

### Who are the customers?

- Currently Primary Care Trusts contract to the Met Office for Health Forecasting services. The PCTs buy the service for a specified number of patients each year. This situation is expected to change plans to restructure commissioning unfold.
- Trusts pay £29 per patient per year.

### What are the benefits?

- The service has been shown to reduce hospital admissions by up to 30%. Each admission costs an average of £1,700.
- This is an attractive proposition for the PCT because it avoids hospital admissions which they would otherwise have to pay for.

Elliot believes that one of the key success factors for the Healthy Outlook® service was engaging the users in service design. During the development phase, a number of specialists were seconded from PCTs to support the Health Forecasting team in developing a service delivery model that fit in with the systems and business processes in the PCTs. It became clear that one of the key assumptions made in the initial project – that the NHS can respond proactively to the forecasts – was something that had to be co-developed. The PCT had to change in order to respond to the health forecasting inputs, but at the same time the Health Forecasting team had to deliver a service that fit in with the way the PCT works.

This requirement for co-development is now also being incorporated in an effort to improve the original risk forecast service predicting A&E demand. Whilst at the time the first service was released hospitals were not set up to make use of the service in resource planning, today the situation within the NHS is significantly different. It is now common for NHS trusts to employ a Director of Resource Management. This indicates that efficient resource management is a matter of concern at the highest levels. Since these posts have been active, several trusts have contacted the Met Office independently because they have identified a relationship between weather patterns and resource usage. This change within the NHS has opened up the potential to make use of a workload forecast, or risk forecast. However, whilst there are clear potential benefits, there is still a need to develop a service that fits in with the business processes and systems of the hospitals and PCTs. Working towards that objective, there is currently a 2 year project underway in partnership with Cardiff University.

### Lessons learnt

Elliot sees Healthy Outlook® as a seed-corn for innovation in the Met Office. The executive team see this innovation as an excellent example of what can be achieved. There is potential to extend the concept beyond the current focus, to address a number of other health conditions: cardiovascular, mental health, diabetes, and trauma.

Elliot emphasised the importance of addressing intellectual property rights (IPR) from the outset. Over the course of the project, the Met Office has further refined and distinguished the respective IPR that it brings to the collaboration with Medixine. This has been necessary because the successful development of Healthy Outlook® relies on Met Office modelling and data as well as the highly regarded patient packs. The Medixine platform also represents significant IPR in the form of the technology to deliver the service.

Another key issue is considering where the public sector partner sits in the value chain. In Elliot's view, too many public sector organisations do not think through the true value of their assets. Consequently there is a risk that they give up the access/rights to these data and do not fully share in the value generated.

One key barrier in extending the Healthy Outlook® service is the conflict between the evaluation methods appropriate to a self-management preventative intervention and the preference for randomised controlled trials within the health service. However, this is a conflict recognised by NICE: "There is little academic consensus about how best to synthesise these different approaches". They also state that, in certain cases, "observational studies may be the only feasible option"<sup>71</sup>.

There was also some NHS resistance to the idea of the Met Office charging commercially for this service. The Healthy Outlook® service would not be feasible and would not provide the same system wide benefits if it were not charged for. The potential of this service to reduce the overall healthcare costs, combined with the incentives of the commercial partner to grow the service, result in its potential to offer genuine shared benefits.



## Conclusions on the research

In this section we will first compare and contrast the lessons on commercialisation that can be identified from the two case studies, and then we will explain how these findings compare with the views of civil servants identified in the survey. From these we identify the issues related to the potential wider use of commercialisation in the UK public sector. There is a vast literature on innovation management in the private sector which has some interesting parallels, which we discuss and use in deriving our recommendations for managing commercialisation projects in the public sector.

### Comparing the two cases

Both the PSBA and the Healthy Outlook<sup>®</sup> projects demonstrate that innovation can lead to improved public services at the same time as reducing costs, with both partners sharing in the value of the innovation developed. Table 2 shows the main conclusions from comparison of the two projects.

From Table 2 it can be seen that the public sector needs to clearly define both its own remit in commercialisation projects and that of its partners. For example, the PSBA team assigned by the Welsh Assembly needed to gain board level support, and sometimes it needed to develop new processes to move the project along. This broader project management was essential to enable a clear brief to be given to Logicalis, which was not only responsible for the technical implementation but also some of the marketing of the innovation. Another important issue is how the public sector views its remit. Some civil servants may not view initiating discussions with the private sector as part of their role.

Both the public sector and commercial partner need to bring their own special capabilities to commercialisation projects, as without this combined expertise such innovations will not be possible. Combining capabilities across organisational boundaries is a key component of open innovation (an important aspect of innovation management in the private sector that we mentioned earlier in this report). Open innovation is likely to become more important in the public sector in the near future, as it is a means by which the expertise and capabilities of the public sector can be complemented by the private sector. Interestingly, the Met Office had previously launched a service on its own but it was only working with Medixine that prompted the development of a novel delivery model, which fundamentally changed the effectiveness of the service and its value proposition.

|   | PSBA partners   |  | Healthy Outlook <sup>®</sup> partners   |   |
|---|---|--|---|---|
|   | Welsh Assembly  | Logicalis  | Met Office  | Medixine  |
| What was the remit of each partner?                           | Defining the project scope, system ownership, political support and approval, contracts management, future planning.  | System development, commissioning and management, and sales and marketing for new contracts.                             | Developing the forecasting model, (criteria for a health alert), operating the forecast   | Developing the patient delivery system (patient packs, phone messages), sales and marketing   |
| What special capabilities were needed by each partner?        | Creating the policy and legal framework that enabled the system to be developed and commissioned, and managing ongoing contract issues.   | Expertise to develop and operate a large scale network solution, expertise in sales and marketing to expand the service. | Weather forecasting expertise, knowledge of the detailed criteria for health alerts with relation to specific health conditions, knowledge of how the NHS works.  | Capability to develop, install and manage a large scale telephony system that could alert many thousands of patients at short notice. |
| Did the public sector have all of the necessary capabilities? | The Welsh Assembly could not have developed a large scale network of this kind, since it would breach the regulations on state aid. In legal terms, they had to have a commercial partner. In technical terms, the capability of Logicalis, as an experienced systems integrator, probably resulted in a better system. |  | The Met Office had the data, but had not developed a way to get it to people. They could have designed their own delivery system, but it was the specific expertise and previous experience of Medixine that prompted the idea for an alert service direct to the patient, and the business model supporting that idea. |   |
| When was the commercial partner first involved?               | Logicalis were not formally involved until the stakeholder analysis and business case stages were complete, and the project went out to tender. However, the PSBA team had held extensive discussions with various potential partners leading up to the tender being specified.   |  | The Met Office had already defined and launched a service (which was not commercially successful) before Medixine was involved.   |   |
| How was the value shared?                                     | The 20% average cost saving means the Welsh Assembly, and the individual public sector bodies using the service, have lower costs. For each new contract, Logicalis increase revenue and the potential to grow profit. Public sector partners also benefit from a managed service with a range of benefits.             |  | Medixine and the Met Office share the revenue generated when new patients are signed up to the service. Value for money for the public sector is also clear: hospital admissions are reduced by up to 30%, saving £1700 for every patient admission.  |   |
| How is this arrangement different from outsourcing?           | Since many public sector bodies have freedom to select their own supplier, the PSBA network is sold as a service to those individual users. Logicalis then own each individual contract. Welsh Assembly Government manages the overall system on their behalf.  |  | It is a cooperative arrangement between two partners, whereby one provides a trigger based on their analytical capability to identify specific risk factors, and the other operates the alert delivery infrastructure.  |   |

Table 2: Comparison of the two case studies



The stage at which the commercial partner is involved appears to be crucial because the commercialisation is based on combining the capabilities of two organisations to derive mutually beneficial innovations. The PSBA team were clear from the outset that they needed a commercial partner and they conducted detailed discussions at an early stage to gauge not only the capabilities of 20 potential partners to gain ideas on how the maximum value of the innovation could be achieved. The public sector will need to become adept at conducting early stage discussions with commercial organisations, if it is to gain the maximum value from public assets.

Sharing of the value generated is a key component of commercialisation. Both the Public Sector Broadband Aggregation (PSBA) in Wales and the Met Office Healthy Outlook<sup>®</sup> programme have both delivered positive financial benefits to the public sector. In both cases, the positive financial impact increases as more users are signed up. So it makes sense to have a commercial partner with the marketing expertise to maximise the adoption rate of the service. Further projects of this type that exploit the combinations of public and private sector expertise and assets would be advantageous in the current economic situation.

Comparing the PSBA and Healthy Outlook<sup>®</sup> projects it can be seen that in neither case did the commercial partner have the expertise to conduct the project alone. In both cases the public sector partner made an essential contribution, both in defining the service, and in setting up the relationships with the service users. Therefore, commercialisation is very different to outsourcing, where responsibility for a public service is simply passed to a commercial organisation which can deliver the service alone. Innovations resulting from commercialisation are more complex and so they should not be confused with outsourcing.

### **Comparison with the survey results**

Both the PSBA and the Healthy Outlook<sup>®</sup> projects demonstrate that commercialisation—innovation developed with a commercial partner and with shared value generation—can lead to improved public sector services and reduced costs. Interestingly, the results of our survey show that civil servants perceive that commercialisation is highly important but they do not think that there is enough guidance and support for such types of innovation. Of concern was the number of respondents that expressed negative views on any type of collaboration with the commercial sector.

Comparing the survey results with the learning from case studies shows that a clear process will be required for managing commercialisation in the public sector. If commercialisation is to make a positive impact in the difficult economic conditions, then such guidelines are urgently needed. The guidelines will particularly need to support civil service managers responsible for creating commercial partnerships, by making the public sector's remit clearer and by providing a framework on how exploratory negotiations with potential commercial partners can best be conducted.

### **Comparison with innovation in the commercial sector**

Commercial organisations have found that innovation management is challenging because it is cross-functional<sup>72</sup>. That is, successful innovation requires the co-ordination of the work of different functions such as R&D, marketing and manufacturing. In the commercial sector, the need to work with outside partners from an early stage is also recognised as essential. The process of innovation consists of a number of key stages, such as identifying customer requirements, developing a product concept, generating a detailed design, testing, and launching the product onto the market. At each of these stages, the different functional areas will have different perspectives on the key decisions that need to be made. Consequently, such decisions often involve trade-offs, where the goals of every functional area cannot be met and so the best decision for the overall project needs to be made. Specific processes have been developed for managing innovation in the commercial sector.

In the public sector, there is also a wide range of functional areas that need to be involved in innovation (including procurement; policy; IT; and operations). Additionally, early stage discussions are needed with potential commercial partners. To successfully coordinate this, specific processes will need to be developed for managing commercialisation in the public sector. And such processes are needed urgently.

## Summary

The challenging economic situation means that the funding available for public services will be reduced. In order to maintain services and at the same time reduce costs, the public sector will need to embrace innovation. Much of the innovation to date in the UK public sector has focused on service efficiency but this is causing opportunities for more radical innovation to be missed. Surprisingly, as shown by a review of the research on public sector innovation, there is a lack of clarity on the types of innovation that can be achieved. Innovation in the public sector can involve service efficiency, new delivery models, new channels, new services, and new approaches to ownership and governance. One new approach to innovation in the public sector is commercialisation – partnerships between the public sector and commercial organisations which enable new or enhanced services to be developed, which create new value that is shared, enabling financial benefits for the public sector.

An online survey of civil servants' views showed that although many are aware of and informed about commercialisation, they do not think that enough information, guidance and support is available on these types of partnerships with commercial organisations. Similarly, most respondents were unable to name any good examples of service innovation in the public sector. Two of the examples of successful innovation named in the survey were the Public Sector Broadband Aggregation (PSBA) programme in Wales and the Met Office Healthy Outlook® service. To understand the way these innovations emerged and were implemented in-depth research was conducted. The analysis of these showed that the combination of the public sector's and the commercial partner's capabilities led to unique services (that neither partner could have developed alone). The cases also showed that the public sector will need to become adept at identifying appropriate commercial partners, and in negotiating contracts that extract value for the public sector (shared with the commercial partner).

Overall, the research described in this report led to the following four key recommendations for managing commercialisation in the public sector:

- Public sector innovation should consist of far more than projects focused on service efficiency, and internally generated ideas.
- The public sector must become adept at conducting early stage discussions with commercial organisations, if it is to generate ideas for new services and gain maximum value from public assets. Suitable partners need to be identified, where the capabilities of the commercial sector complement the unique expertise and assets of the public sector. Making such partnerships work will require trust on both sides and sharing of the value generated from the innovation developed.
- The public sector urgently requires more guidance and support on how to apply the concept of commercialisation and gain the benefits.
- Public sector innovation is very different from innovation in the commercial sector. Therefore, although there are some points to be learned from the commercial sector, new and appropriate tools need to be developed for the public sector and these need to be disseminated to civil servants. In the current challenging economic environment, the role of civil servants is changing fast and they will need to drive innovation in the public sector more than ever before.

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