

DINNER/DISCUSSION SUMMARY

Public procurement as a tool to stimulate innovation –
the House of Lords Science and Technology Select Committee Report

Held at The Royal Society on 22nd June, 2011
The Foundation is grateful for the support for this meeting from
The Michael John Trust and the Technology Strategy Board.

- Chair:** **The Earl of Selborne GBE FRS**
Chairman, The Foundation for Science and Technology
- Speakers:** **The Lord Krebs Kt FRS FMedSci Hon DSc**
Chairman, House of Lords Science and Technology Select Committee
Darren James
Managing Director, Infrastructure, Costain
Sally Collier
Executive Director, Procurement Policy and Capability, Efficiency Reform Group, Cabinet Office
- Respondent:** **Professor Brian Collins CB FREng**
Former Chief Scientific Adviser, Department for Business, Innovation and Skills and Department for Transport

LORD KREBS explained the rationale for the inquiry into government procurement by the House of Lords Select Committee¹. In 2009-10, the public sector spent over £236 billion on procurement, amounting to 1/7th of GDP, a sum that was capable of influencing the development of better solutions to improve the delivery of public policy and services as well as stimulating the growth of innovative industries into wider markets. In its report the Committee had studied again the ways in which government could use its leverage to stimulate and exploit imaginative new ideas as well as encourage the 'intelligent plagiarism' of solutions demonstrated elsewhere into novel applications. Some progress had been made, with procurement capability reviews, innovation procurement plans for departments and the setting up of the Technology Strategy Board. Under Forward Commitment Procurement, departments were being encouraged to provide the market with advance information on future needs in outcome terms, enter into early engagement with potential suppliers and make forward commitments. The part played by SMEs was recognised, and the Small Business Research Initiative (SBRI) relaunched in April 2009 provided a pre-commercial procurement process involving 100% funded R&D contracts. But these initiatives were still very small (SBRI competitions amount to less than £25m annually, less than 1% of total government procurement) and all too often the default option of government was to fall back on routine solutions using tried and tested technology. What was needed was to see how the use of innovative approaches could be embedded much more widely. Despite all the past analysis, and the promises of many earlier studies, the Committee had concluded that potential to drive innovation was not being realised.

Continuing, Lord Krebs said that his Committee had looked in detail at the Department of Transport and its Innovation Procurement Plan. All the right words were there including recognition of the importance, which the Committee endorsed, of getting the very early stages of procurement right. There were some examples of excellent and encouraging practice, including in the Highways Agency, but there was still a lack of general understanding of the contribution good strategic planning of procurement and more challenging specification of departmental procurement plans could make to innovation and a failure to embody this thinking in grand challenges. Lord Krebs drew attention to the lack of evidence before his Committee of any

systematic and coherent change in approach across government to encourage innovation through procurement. The Committee had therefore recommended that a single Minister be made responsible for both procurement and innovation policy across government (the former currently rests with the Cabinet Office and the latter with BIS) and that each Department should have a Minister with specific responsibility for innovation and procurement. Departmental Chief Scientific Advisers should also be given a greater role in ensuring the procurement of innovative ideas by their departments, encouraging engagement with industry and academia and assisting Departments with their horizon scanning activities to encourage longer term thinking and to develop the capacity of departments to act as "intelligent customers".

Concluding, Lord Krebs emphasised that the main barriers to progress appeared to lie in a deep-seated culture of risk avoidance in the public service driven by fears of the consequences of failure and a too ready assumption that seeking innovation would necessarily conflict with the duty to seek better value for money for the taxpayer. The Report of the Committee therefore called on the Government to use their knowledge of the workings of the public service to offer solutions to the fundamental barriers to progress as identified by the Committee including devising new ways to incentivise good risk management.

DARREN JAMES welcomed the Select Committee Report from the standpoint of a practitioner. His company was a major contractor for government, with many successful projects to its credit, but experience from his industry showed that the Committee was right to have identified significant scope for improvement in procurement processes leading to both more innovative solutions and better value for money. The Committee's conclusions were welcome. There was cause for hope: with a consistent message applying experience drawn from case studies and applied over many years it would be possible to use procurement to shape the market for better delivery and for innovation. Such change was best led by inspiring people to a common objective, and ensuring access to expertise such as that provided by Chief Scientific Advisers.

Continuing, Darren James agreed that from his experience the key to successful results was early engagement by an intelligent customer of an appropriate supplier; that would then provide the best opportunity to introduce beneficially innovation and value for money. What the supplier needed to know early on was what outputs the client was seeking, with what relative priority, and what balance was desired between short and longer term results. Darren

¹ House of Lords Science and Technology Committee, 1st Report of Session 2010-11, 25 May 2011, HL Paper 148

James cited approvingly the definition given by Lord Bhattacharyya in the Committee Report, that "to be an 'intelligent customer' you have to understand the technology and potential added value opportunities as well as effective procurement processes and financial rigour". The Committee had rightly drawn attention to the SME sector as a source for innovative thinking but the Committee was also right to point to the need for such contributions by SMEs to be integrated by the prime contractor into an imaginative programme. Early engagement between client and contractor would help identify the scope for new thinking, leading to the choice of an appropriate procurement strategy for the nature of the products and services sought and the risk appetite of the client. He illustrated this with a matrix showing the attributes of projects ranked against different possible procurement models, ranging from simple projects best acquired on a fixed price commodity basis to highly complex advanced technology projects where the procurement method should reflect the possible multi-phase nature of the programme, and could involve cost-plus contracting and risk sharing. He gave examples from Costain of road programmes where such early involvement between the chosen contractor and the client had resulted in more innovative solutions being devised with de-scoping of requirements to generate better value for money. Concluding, he emphasized the importance of building trust between contractor and the client based on sharing of risk. When a risk is shared it creates a collaborative approach that allows innovation to be used to mitigate risks so that they do not then materialize with the magnitude originally feared.

SALLY COLLIER explained her role as Executive Director for Procurement Policy and Capability as part of the recently created Efficiency and Reform Group (ERG) within the Cabinet Office, under the joint direction of Danny Alexander, the Chief Secretary to the Treasury, and Francis Maude as the Minister for the Cabinet Office. The ERG's aim is to drive efficiency improvement and reform in the operations of government, including streamlining the procurement process and moving towards outcome-based specifications. Fundamental to these reforms is improving capability. Accreditation programmes for government procurement staff were being developed involving a 'licence to operate' in sourcing, category management and contract management. A pilot commercial interchange programme was under way involving exchanges of staff from industry and government departments and a scheme for apprenticeships in procurement was under consideration. A LEAN study² of government procurement process had identified scope for significant improvement in the application of the rules, including EU procurement law, leading to the scope for major savings in the time taken (of over 70% in complex projects examined). Like the earlier speakers, she agreed that the early part of the procurement process was fundamental to getting it right. The potential for capturing innovation was high at the outset of a project but would then diminish during the cycle. The greatest impact was when policies were being formulated and programmes and projects were being shaped, and in the choice of procurement strategy itself. New forms of contracting were being promoted by government including mutuals and joint ventures, especially with an eye to supporting wider government priorities for the 'big society'. The role of SMEs was recognised and an innovation launch pad had been developed by the Cabinet Office as a web-site for SMEs, with solutions being voted upon and after a product surgery in July, followed by intensive mentoring by entrepreneurial experts.

Continuing, Sally Collier emphasized the importance of availability and transparency of information. All new central government ICT contracts would be published on line. A new 'contracts finder' portal would provide ready access to opportunities. Tender

documents would be published. It was encouraging that already, for the first time, SMEs had taken the bulk data being made available and republished it in repackaged easy to use formats. In conclusion, Sally Collier agreed with the thrust of the Committee report that it was possible to stimulate innovation through procurement: in her view, however, developing the capability of the people involved would be the key to improving performance in that respect.

PROFESSOR BRIAN COLLINS responded to speakers by stressing the complex, complicated nature of the topic. The work of the Committee usefully highlighted opportunities to use procurement to encourage innovation, but to succeed the challenges in doing so had to be faced and dealt with. He identified five in particular.

The first challenge was to manage the tension between the need to save money on the one hand and adopting innovative solutions on the other. Innovation was seen as risky in comparison to adopting supposedly tried and tested solutions. There were not adequate analytic tools available to government to enable the consideration together of both value for money and innovation and their interaction. It had to be recognized that there could be legislative considerations and policy priorities, particularly in times of austerity, that argued for solutions that would involve lower levels of risk, and therefore less emphasis on innovation, in the interests of delivering immediate value for the taxpayer.

A second challenge came with the size of many large government projects and programmes. Innovation might well be readily demonstrated on a smaller scale but the difficulties of scaling up such results should not be underestimated. In the case of many government programmes the scale was enormous, and the corresponding risks to the taxpayer and risks to the standing of departments and the political reputations of government Ministers acted as a deterrent to innovation.

Accepting that early intervention in the policy and procurement process was key, Professor Collins identified as a third challenge the joining up of all those involved at an early stage, and ensuring that as a programme developed they stayed connected. It was important to be clear about who in the end would make the choices, including of procurement route, that would influence the level of innovation being sought. Trust between contractors and clients had been mentioned, but when the client was government that was not always straightforward.

Fourthly, Professor Collins emphasized the need to have early answers to the questions that would need to be addressed before launching an initiative or programme. It was an old lesson that money spent on front-loading analytical work would be repayed many times over with risks better managed during implementation. Yet in the world of politics that was often not how major change programmes got launched whether by central government, local government or local agencies.

Finally, Professor Collins identified obstacles to sharing of information between the different parties involved with their different cultures. The web provided a real opportunity to improve matters, and with greater sharing of knowledge and experience would come greater mutual trust, whose importance had already been emphasized.

In general discussion of these points, attention was drawn to a deep seated risk aversion in the public sector, with good reason given the history of Public Accounts Committee hearings and media firestorms when things went wrong. Low risk appetite in individual projects often went hand in hand with culpable risk blindness of government in launching major initiatives. Often the incentive structure seemed to favour nil-nil draws rather than 2-1 wins since the latter would involve criticism of having let in a goal. Assessing results across sectors and portfolios of programmes rather than just project by project would help. The stated approach of Francis Maude that officials should be licensed to accept more risk in return for the prospect of greater returns for the taxpayer was welcomed. It was

² 'LEAN' is a production practice that works from the perspective of the customer to identify end-value and to eliminate wasteful activities that do not create value for the final customer. Essentially, lean is centered on preserving value with less work.

also noted that officials could only operate with the authority of their Departmental Minister and the political appetite for additional risk was not universal so the responsibility should not be seen as just resting with civil servants.

It was also argued that successful innovation often involved development effort, design work and prototyping and testing before major procurements were started. There was little money available and bidding if labeled as R&D had become very hard, although it was essential to have such preliminary work funded if innovative concepts were to be turned into results on the ground. The experience of the US offered several lessons in how public procurement arrangements could favour R&D, although the scale factor with agencies such as DARPA inevitably meant that the leverage was greater than would result from the smaller UK examples such as the MOD networks and the SBRI initiative for SMEs. It was argued that the problem was less one of poor risk culture than of inadequate business process design that did not facilitate the use of procurement money to de-risk possible solutions before commitment to programmes.

There was also support for the view that if government came forward early with its high level objectives then in a competitive marketplace the supply side would respond with innovative solutions. More technical expertise was needed on the side of the customer in order to understand what objectives could be sought given the application of new thinking and technology. A focus only on procurement capability could miss the importance of the early stages of the policy process that led from political vision to practical outcomes.

In further discussion the following additional points were made:

(a) the importance of taking a through-life view of costs and benefits was emphasized by several contributors, along with the dangers in present circumstances that the search for in-year savings would be at the expense of innovation. On the other hand, it was encouraging that with the 'burning platform' of fiscal constraints officials and Ministers seemed agreed in their determination to reform outmoded processes. Value engineering tools could be used to improve performance in terms of time and risk reduction, although there would inevitably always be an element of learning by doing. Benchmarking with reference projects did not always reduce risk and in the end truly innovative programmes would involve some leap of faith.

(b) it was important to understand better how innovation entered the supply chain and the role of SMEs within it. It would help to have opportunities for all parties to come together early with government customers, pre-competitively, to discuss the opportunities for the end user that could flow from greater innovation and help the customer understand better the risks and rewards involved. It should also be remembered that 65% of investment in infrastructure was the responsibility of the private sector.

(c) central government only accounted for less than one-third of the total public procurement spend so local government and the NHS had also to be involved. And there was a danger that central government would focus on improvement within the existing boundaries rather than identifying 'grand challenges' to pull through innovation for the really big problems ahead that horizon scanning work would identify such as the need for long term infrastructure to be able to accommodate climate change. Having aspirations in the UK for greater SME involvement was admirable but doubts were expressed about having a fixed 25% target for direct SME contracting: the focus should be on innovation itself, and often the benefits of innovation for the end-customer could only be realized through prime contractor integration of SME ideas.

(d) there were technical issues that deserved more attention such as the liability that might arise if innovative schemes did not deliver, the methods for sharing risks and rewards and the

constraints that EU policy on state aid might impose on government's wish to see wider innovation pursued through its own procurements. It was important that accountability, authority and responsibility for programmes coexisted in the same body, and that there was clarity about relative responsibilities for policies on procurement being followed at national and local levels, especially in the light of the government's localism agenda.

Concluding, the speakers welcomed the wide-ranging discussion of the Select Committee's recommendations for using procurement to support innovation, recognising that good procurement processes were a necessary but not sufficient condition to drive innovation. Lord Krebs confirmed that it was the intention of his Committee to follow up the Report in the next session in about 12 - 18 months time in order to see what progress had been made against the Committee's findings and what plans had been put in place to ensure improvements were set to continue.

Sir David Omand GCB

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www.balfourbeatty.com

Cabinet Office Efficiency and Reform Group
www.cabinetoffice.gov.uk/unit/efficiency-and-reform-group

Costain
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Department for Business, Innovation & Skills
www.bis.gov.uk/innovation

Department for Transport - Procurement Strategy
www.dft.gov.uk/about/procurement/commercialstrategy

The Foundation for Science and Technology
www.foundation.org.uk

The Committee report is available on the House of Lords Science and Technology Select Committee web site at:
www.parliament.uk/business/committees/committees-a-z/lords-select/science-and-technology-committee/news/innovation-report
or
www.publications.parliament.uk/pa/ld201012/ldselect/ldstech/148/14802.htm

HM Treasury - Green Book
www.hm-treasury.gov.uk/data_greenbook_index.htm

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