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# Innovation Procurement

## Part of the Solution

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# Executive Summary

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There is a consensus in the academic literature that innovation is at the heart of long-term economic growth and international competitiveness.<sup>1</sup> In addition, innovation is often considered important for improving public service delivery and helping to address global economic challenges such as climate change and sustainable development at reasonable social cost.<sup>2</sup>

Traditional approaches for promoting innovation emphasise supply side instruments – such as R&D support. A demand side measure that has gained popularity among policy makers over recent years is innovation procurement, which is the public procurement of innovative goods and services. Since 2005, innovation procurement has played a central role in several ambitious policy reports. These include:

- European Commission (2005): Public Procurement for Research and Innovation – Developing Procurement Practice Favourable to R&D and Innovation; Expert Group Report; Pre-Commercial Procurement of Innovation;
- UK Department for Innovation Universities and Skills (2008): Innovation Nation; DIUS: Science and Innovation White Paper;
- Lord Sainsbury (2007): The Race to the Top: A Review of Science and Innovation Policies;
- Richard, D. (2008): Small Business and Government: The Richard Report; Submission to Shadow Cabinet.

All these reports point in the same direction – public procurement has a potent, but underexploited capability to promote innovation in the private sector and thereby to strengthen European competitiveness. According to the reports, public procurement amounts to 16% of EU GDP, so public authorities, as major customers, are in a good position to stimulate R&D and innovation.

At the same time, the reports identify some key barriers, including risk aversion in the public sector, coordination failures between procurement and other aspects of public policy and inappropriate procurement contracts.

Despite the undoubted potential of innovation procurement, we argue that it is important to be aware of when and how to use it. Innovation procurement is only likely to promote innovation efficiently if used in the right circumstances and in the right way.

We identify two principal justifications for using innovation procurement:

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<sup>1</sup> Romer, P.M. (1990), Endogenous technological change, *Journal of Political Economy*, 98(5), S71-S102; Jones, C.I. (1995), R&D-based models of economic growth, *Journal of Political Economy*, 103(4), 759-784.; Porter, M. (1990), *The Competitive Advantage of Nations*. London.

<sup>2</sup> Grubb, M.; David, U. (2002): Energy, the Environment, and Innovation; *Oxford Review of Economic Policy*; Vol.18; No1.

- to ensure the right amount of investment in research and development (and so the pace and amount of innovation); and
- to ensure that investment in innovation is distributed to where it will be most effective.

We interpret innovation procurement as a special type of prize mechanism, and find that it should be part of a menu of prize mechanisms including first-past-the-post, best-in-simultaneous-submissions and simple contests.

Further exploration of potential outcomes suggests that innovation procurement should only be used alone when it promotes the right amount of investment in innovation. If it ensures the right distribution of innovation investment but not the right amount of investment, a hybrid mechanism combining standard procurement with another prize mechanism is indicated.

This briefing is based on the academic and policy literature in the field. It is strongly recommended that this exploratory work is followed up with a rigorous empirical study to test whether and to what extent the reasoning presented stands up to the data.

Most empirical work in the field so far has focused on the question of whether innovation procurement ensures the right amount of investment and/or the right distribution of investment in research and development.<sup>3</sup> Little attention has been paid to how innovation procurement fares with regard to these questions relative to alternative prize mechanisms.

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<sup>3</sup> Edler et al (2005): Innovation and Public Procurement. Review of Issues at Stake; study for the European Commission (No ENTR/03/24). CBI/QinetiQ (2006): Innovation and public procurement: A New Approach to Stimulating Innovation; CBI Innovation Brief. Vinnova (2006): Public Procurement as a Driver for Innovation and Change; Report on Government Commission to Nutk and Vinnova; Vinnova journal number: 2006-01487