

Buying Solutions: Government procurement for innovation

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The matching problem

- “One day in 1943, Edwin Land’s three-year-old daughter asked why she could not immediately see the picture he had just taken of her. Within an hour, this scientist conceived the camera that would transform his company. In other words, Land’s vision was the synthesis of the insight invoked by his daughter’s question and his vast technical knowledge.”

How does need and innovation come together?

Coordination

- Many good technical solutions exist within the community
 - Users have solved their own problems
 - Problems could be easily solved but for clear articulation and communication of a need
- Current policies: aimed at making it less costly to generate solutions (Supply push)
- Need policies that are aim at making it easier to articulate needs and gaps (Demand pull)

It “might be more efficient to have problems seeking solutions than solutions seeking problems.”

Demand-Pull Policies

- Prizes
 - Examples: X-Prize, google.org, NetFlix
- Tournaments
 - Examples: race for synthetic insulin
- Advance purchase commitments
 - Examples: vaccines
 - Similar: PBS

Don't need to pay unless a solution is found.

Using procurement

- Government is a large purchaser but not necessarily with unique needs
- Ex post: can use its role as a large buyer to promote services that will be developed for uses beyond government
- Ex ante: can specify advance purchase commitments for solutions to existing problems (“fuzzy RQFs”)

Experience in the UK

- 2007 Report on *Transforming Government Procurement*

“It is much easier to evaluate the costs and benefits of a tried and tested product, rather than something that may not have previously been used in practice, or may not even exist at the time the Government first considers using procurement as a means of solving a complex delivery problem. However, if a new and better solution is already developed or could be made available, this might provide better value for money than a tried and tested product.”

- Whitehall area combined power and heat system: better management to reduce emissions
- Prison mattress purchases and disposal: used advanced purchase commitments to solicit 35 innovative solutions (including different materials to alternative recycling systems)

Next steps

- Review of procurement practices
 - Including a 'novelty' component
 - Including a 'spillover' component
- Target areas for procurement innovation
 - Environment: technology to reduce emissions
 - Health: improved hospital hygiene
 - Roads: improved traffic management
 - Education: curriculum innovations
 - Utilising digital infrastructure