

Technology Strategy Board  
Driving Innovation



## Innovation

### Driving Policing Excellence

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Excellence in Policing Conference – Monday Sept 19th 2011

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## Today

- 1) Innovation
  - What is innovation?
  - Barriers in policing
  - More innovation
- 2) Technology Strategy Board
- 3) Our Top 5 Ideas

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## What is innovation?

"Creativity is thinking up new things.  
Innovation is doing new things"<sup>1</sup>

"The process of improving, adapting or developing a product,  
system or service to deliver better results and create value  
for people."<sup>2</sup>

"Creation of better or more effective  
products, processes, technologies, or ideas  
that are accepted markets, and used by  
government and society."

<b>Three Forms</b> <ul style="list-style-type: none"> <li>• Improving something you already do</li> <li>• Adapting a tested idea to a new context</li> <li>• Developing something entirely new<sup>2</sup></li> </ul>	Solving problems  Being better
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<sup>1</sup> Theodore Levitt  
<sup>2</sup> IDEO (2011)

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## Barriers in Policing?

Proactive	← ● →	Reactive ?
Networked	← ● →	Hierarchical ?
Creative	← ● →	Risk averse & rule bound ?
Open	← ● →	Closed ?
'Can do'	← ● →	'Know all' ?

What about the police service?  
How is the service at murdering ideas?

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## Murdering ideas?

- See it coming and quickly **change the subject**
- **Ignore it.** Dead silence intimidates all but the most enthusiastic.
- **Feign interest** but do nothing about it.
- **Scorn it.** "You're joking, of course." Make sure to get your comment in before the idea is fully explained.
- **Laugh it off.** "Ho, ho ho, that's a good one Joe. You must have been awake all night thinking that up."
- **Praise it to death.** By the time you have expounded its merits for five minutes everyone will hate it.
- **Mention that it has never been tried before.** If the idea is genuinely original, this is certain to be true.
- Alternatively, say, "If the idea's so wonderful, why hasn't someone else already tried it?"
- Say, "Oh, we've tried that before" - even if it is not true. Particularly effective with newcomers. It makes them realise what complete outsiders they are.
- **Come up with a competitive idea.** This can be dangerous tactic, however, as you might still be left with an idea to follow up.
- **Stall it.** "We're not ready for it yet, but in the fullness of time."
- **Modify it out of existence.** This is elegant. You seem to be helping the idea along, just changing it a bit here and there. By the time the originator realises what's happening, the idea is dead.
- **Try to chip bits off it.** If you fiddle with an idea long enough, it may fall to pieces.
- **Appoint a committee** to sit on the idea.
- **Drawn it in cold water.** As in: "that's all very well in theory, but in real life..."
- **Return it to sender** with: "You need to be much more specific about your proposal."

1 Quoted in Prime Ministers Strategy Unit (2008) Strategy Survival Guide

17 Ways to Murder an Idea

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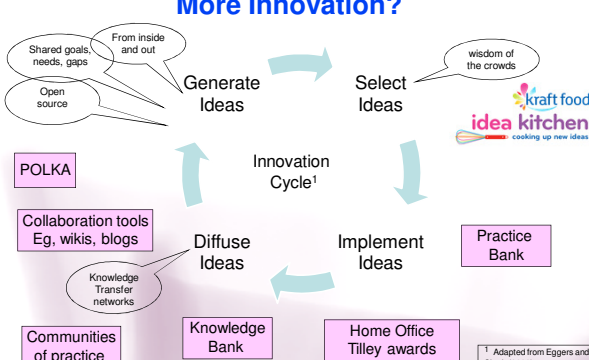
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## More Innovation?



Innovation Cycle<sup>1</sup>

**Generate Ideas:** Shared goals, needs, gaps; From inside and out; Open source; POLKA

**Select Ideas:** wisdom of the crowds; **idea kitchen** (kraft foods); *cooking up new ideas*

**Implement Ideas:** Practice Bank; Home Office Tilley awards

**Diffuse Ideas:** Collaboration tools (Eg, wikis, blogs); Knowledge Transfer networks; Communities of practice; Knowledge Bank

1 Adapted from Eggers and Singh (2009)

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## The Technology Strategy Board

- The UK's Innovation Agency
  - Arms length body sponsored by Department of Business Innovation and Skills
- We work across business, universities and government
- A Business led organisation
  - Governing Board from Business and Academia
  - ~130 people with business backgrounds
- Responsible for investing ~£320M a year

*Our goal is to accelerate economic growth by stimulating and supporting business-led innovation*



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## Procurement & Innovation

- Government a major procurer of goods and services
  - ~£220Bn in UK
  - Action shapes markets – whether planned or not
- Open for Innovation – two dimensions
  - Being open to the procurement of existing innovative solutions
  - Engaging as lead customer in stimulating innovative solutions
- Challenges in engaging with innovation
  - Understanding issues and areas where innovation necessary
  - Ability to find and engage with innovative ideas and companies
  - Ability to manage risk and project engagement
- SBRI – a part of the solution
  - Developing innovative solutions & innovative companies

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## SBRI Process

- Open competition based on Public Sector Challenge
  - Articulate issue and desired outcome – not product...
- Competition widely advertised
  - Reach out to broadly across sector and companies
- Applications assessed by owning Public Sector Body
  - Most promising ones awarded development contracts.
- Project risk is managed through a Phased process
  - Phase 1 Proof of Feasibility 2 - 9mths & ~£20K to £100K
  - Phase 2 Prototype Development can be up to 2 years and ~£1M

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**SBRI** Government challenges. Ideas from business. Innovative solutions.

### SBRI Features

- Development Contracts
  - 100% funded R&D
  - Operate under procurement rules rather than state aid rules
    - UK implementation of EU Pre-Commercial Procurement
  - Deliverable based rather than hours worked or costs incurred
  - Contract with a lead contractor who can strengthen their application though subcontracting with others
- IP rests with Company
  - Certain usage rights with Public Sector – companies encouraged to exploit IP.

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### Progress / Scale

- Pilots H2-2008 and Deployment started April 2009
- Since April 2009
  - 65 new competitions
  - > 2600 companies applied
  - >600 contracts awarded >£42M
- 24 Public Sector Bodies engaged

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**SBRI** Government challenges. Ideas from business. Innovative solutions.

**DH** Department of Health

### HCAI – Dept of Health

- NHS spends up to £1B dealing with HCAI
  - ~300,000 patients
- Hand cleaning device
  - Machine which scans non-thermal plasma over hands
  - Kills pathogens, kinder on the skin
- Funded for two phases
  - £100,000 + £750,000

*'SBRI funding has enabled us to raise a second round of Angel funding...we have grown from 3 to 6 full time employees plus 20 associates...by 2014 we plan to have a 100 employees'*

STEVE MORRIS, CREO MEDICAL

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**SBRI** Government challenges. Ideas from business. Innovative solutions.

**CENTRE FOR DEFENCE ENTERPRISE**

MINISTRY OF DEFENCE

- MOD largest user of SBRI, submissions through the Centre for Defence Enterprise (CDE)
- CDE connects innovation to other parts of the MOD
- Competitions include:
  - Energy efficient soldier
  - Lightweight weapons systems
  - Self-sustaining forward operating base
  - Lightweight personal protection
  - Less than lethal weapons & effects
  - Helicopter Rotor Blade scintillation
  - Explosive Ordnance Disposal
  - Battlefield Medical Technology




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**SBRI** Government challenges. Ideas from business. Innovative solutions.

**Home Office**

**Screening Drug Drivers**

- Enforcement of drug-driving currently based on observation combined with sample of blood or urine.
  - Invasive, expensive, delay - test and result, technical skills
- Aim - to develop a product capable of detecting – quickly, easily and accurately – a range of impairing drugs and their metabolites, with the flexibility to add additional substances
- Randox – Phase 1 feasibility + Phase 2 to build prototype device to test for 13 drugs in 8 minutes – simultaneously.
- *'Detecting multiple drugs in oral fluid at such low cut-off concentrations and to Home Office specifications was a significant challenge, but we overcame it with the help of SBRI funding. The market for this product is vast – and expanding.'*  
DAMIEN MCALEER,  
RANDOX LABORATORIES




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**SBRI** Government challenges. Ideas from business. Innovative solutions.

**What works as a SBRI?**

- A challenge/topic which you are committed to find a desired solution in a short time scale
- Resources/Funding to take research through development to implementation
- Wish for a product /service which is not currently available
- Desire to improve on what is currently being purchased/deployed

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## EXERCISE: Our Top 5 Ideas

**What practical, technology-enabled policing problems could the Technology Strategy Board and SBRI help the police service to tackle?**

Improving something?

Tested idea but new context ?

Something new ?

- 20 minutes
- 5 ideas on each clip board
- Report back 1 minute per group
- Anything goes ....

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## Useful References

ACPO, APA, Home Office and NPIA (2010) Science and Innovation in the Police Service

IDEO Partnership for Public Service (2011) Innovation in Government

Technology Strategy Board website: [www.innovateuk.org](http://www.innovateuk.org)

Technology Strategy Board Strategy:  
[http://www.innovateuk.org/assets/0511/technology\\_strategy\\_board\\_concept\\_to\\_commercialisation.pdf](http://www.innovateuk.org/assets/0511/technology_strategy_board_concept_to_commercialisation.pdf)

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William Eggers and Shalabh Kumar Singh (2009) 'The Public Innovator's Playbook: Nurturing Bold ideas in Government', Deloitte

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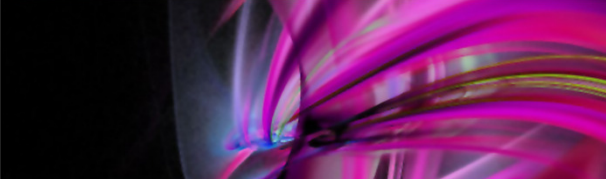
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