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# CBR Research and Development Programme

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Dstl

**CBR**

Defence Research 2010

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# Overview of Presentation

## ■ CBR STC

- The role of the CBR STC
- Breadth of activities
- Partnership model
- Industrial engagement

## ■ Overview of the R&D programme

# Management of CBR programme within Dstl

- Dstl exists to provide independent S&T advice to MOD and wider government
- Highly diverse technical area
  - Medical countermeasures to physical protection
  - Exploitation of basic research to operational support
- Requires highly specialised facilities and staff
- Multiple stakeholders, income streams and outputs

# Key Challenges facing S&T

## ■ Greater agility required to meet a less well defined and changing threat

- • A more flexible research programme that ensures rapid exploitation as the threat changes
- • Greater involvement of industry at all levels of the programme

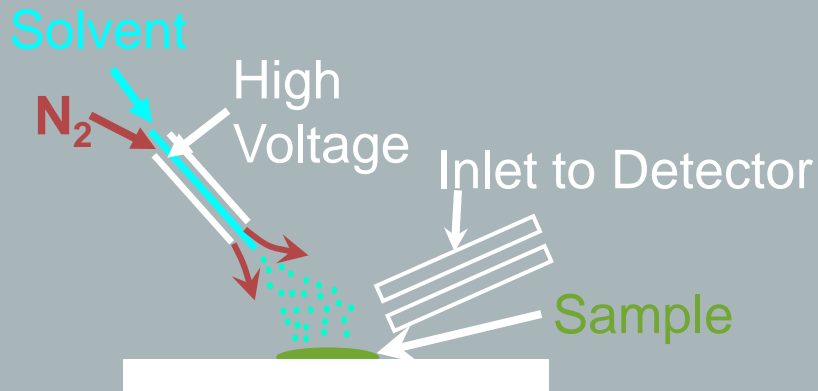
## ■ Impact of research funding pressure

- • Greater need for partnership and gearing

# Role of the CBR STC

- Drive a wholly coherent programme
- Develop the partnership model
- Ensure the national capability for CBR S&T

# Breadth of activities



Proof of concept

Tech transfer

## Innovation



Facilities

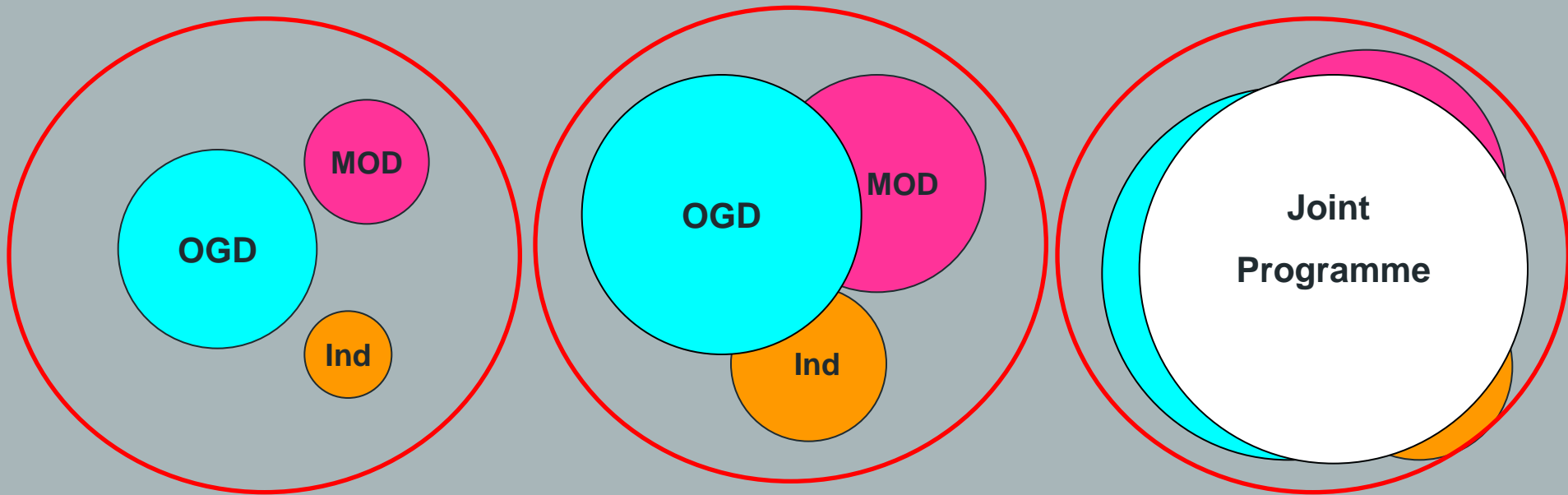


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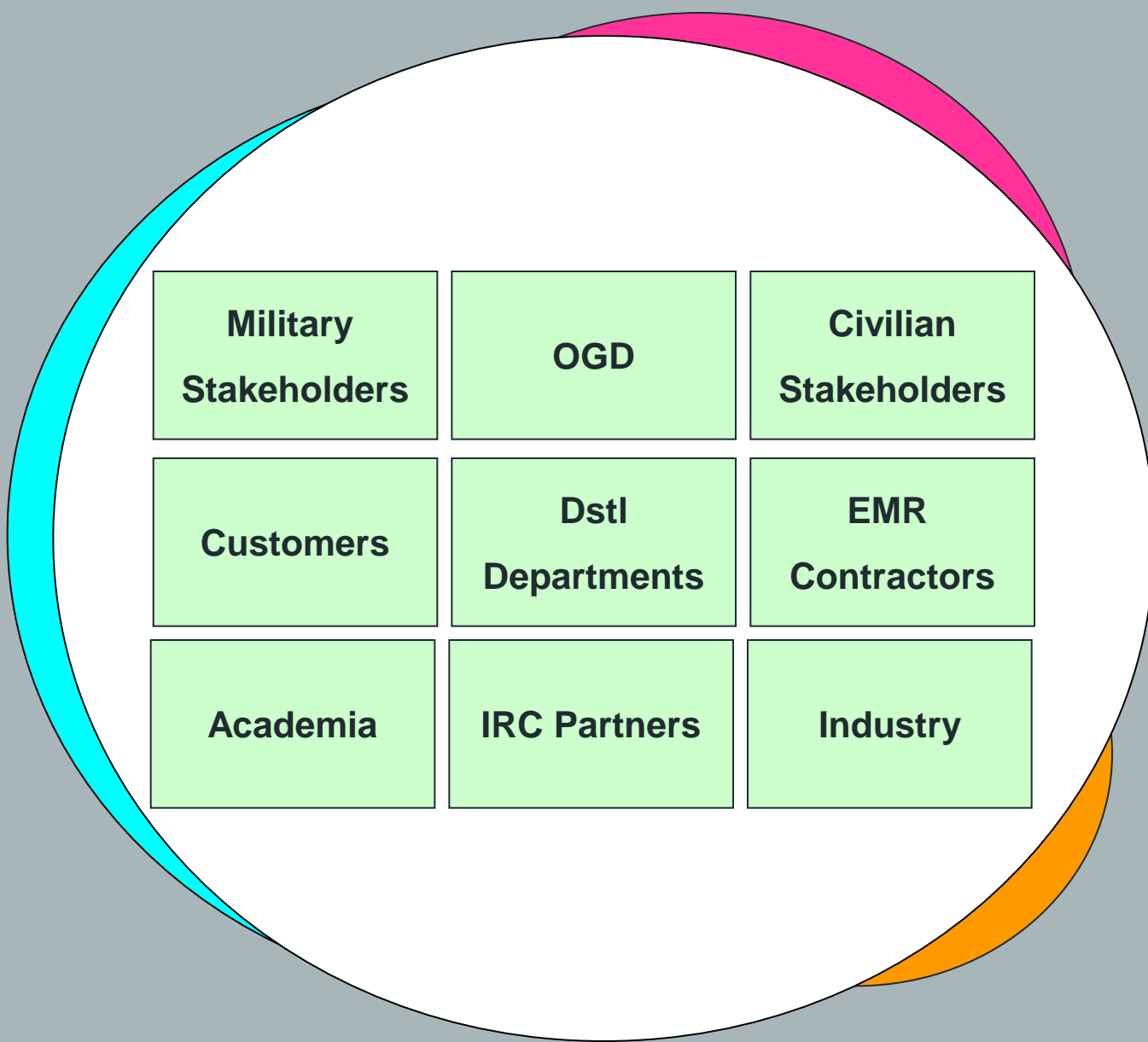
# Partnership



Individual programmes

Coordination to prevent duplication and realise synergies

Integrated, coherent programme that maximises benefit to all partners



# Industrial Engagement with the CBR STC

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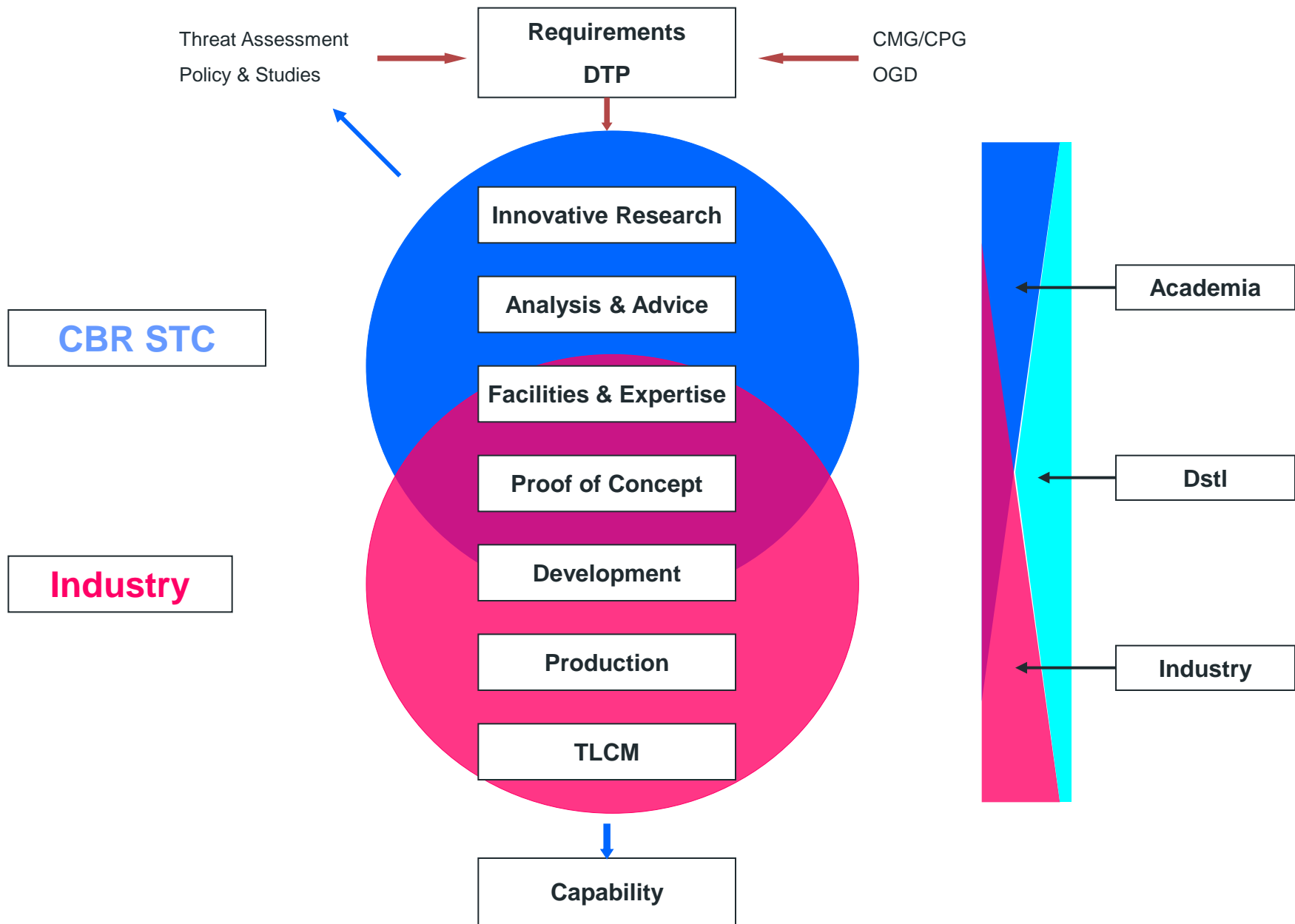
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# How does industry get involved with CBRN R&D and the CBR STC?

- **Industry can get involved:**
  - Through Sector Transformation as a Key Strategic Partner or a SME working with a KSP
  - As a subcontractor to Dstl
  - Through the CDE
- **Advice on how best to integrate R&D can be obtained through the CBR STC**

# Industry: Link between CBR STC and Sector Transformation

- Previously known as Team CBRN
- Aim to appoint 2-5 Key Strategic Partners to manage capability in
  - Sense Bio
  - Sense Chem
  - Sense Rad
  - Knowledge management
  - Physical Protection
  - Hazard management

# Pilot Phase

- 1 year Pilot phase to put in place processes to enable business change
  
- KSPs to work together to formulate standard processes for
  - Running competitions
  - Engaging supplier base
  - Managing IP
  - Interacting with Dstl
  
- Some specific tasks to demonstrate benefits
  - Clothing TDP

# CBR R&D Programme

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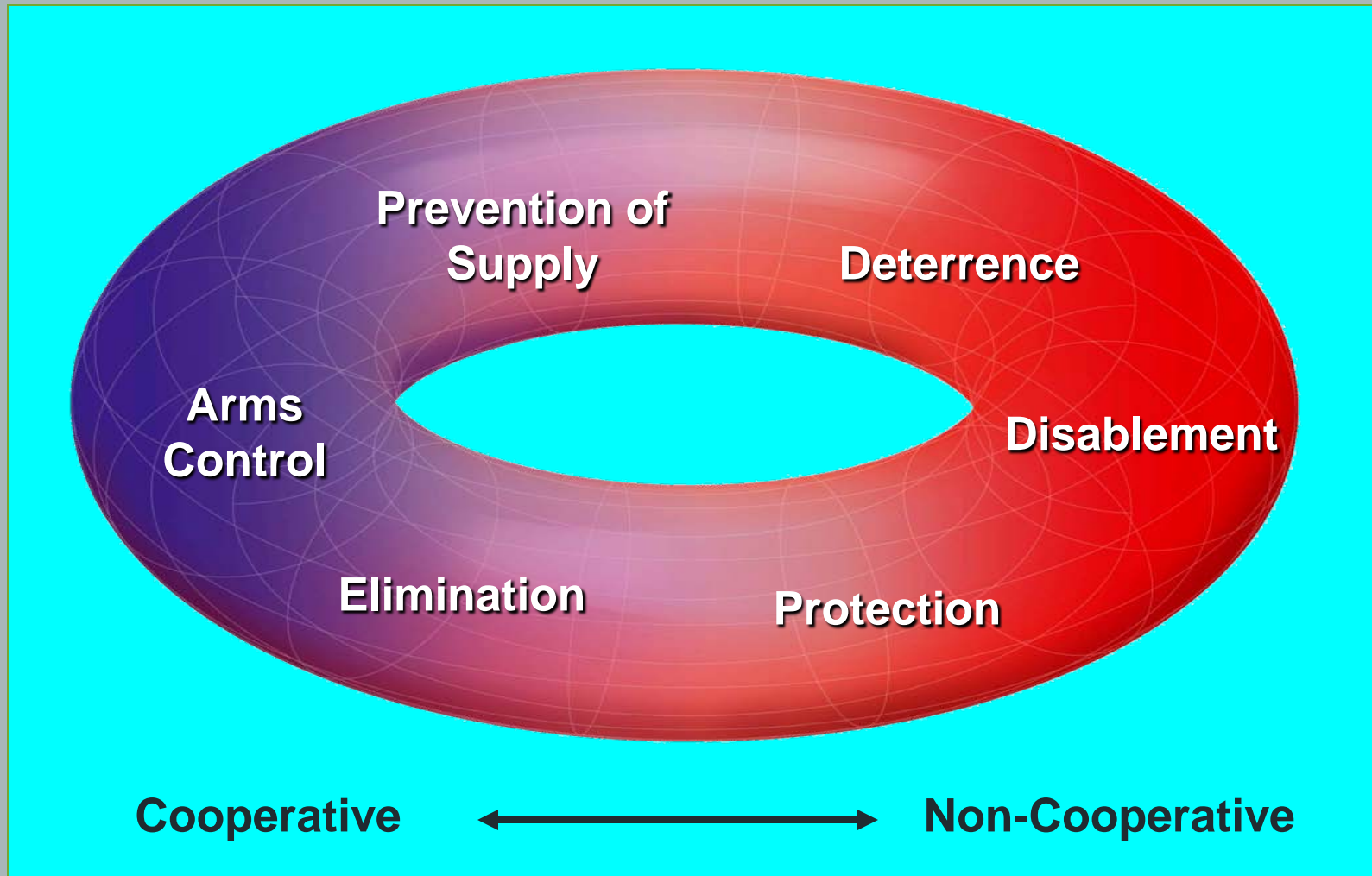
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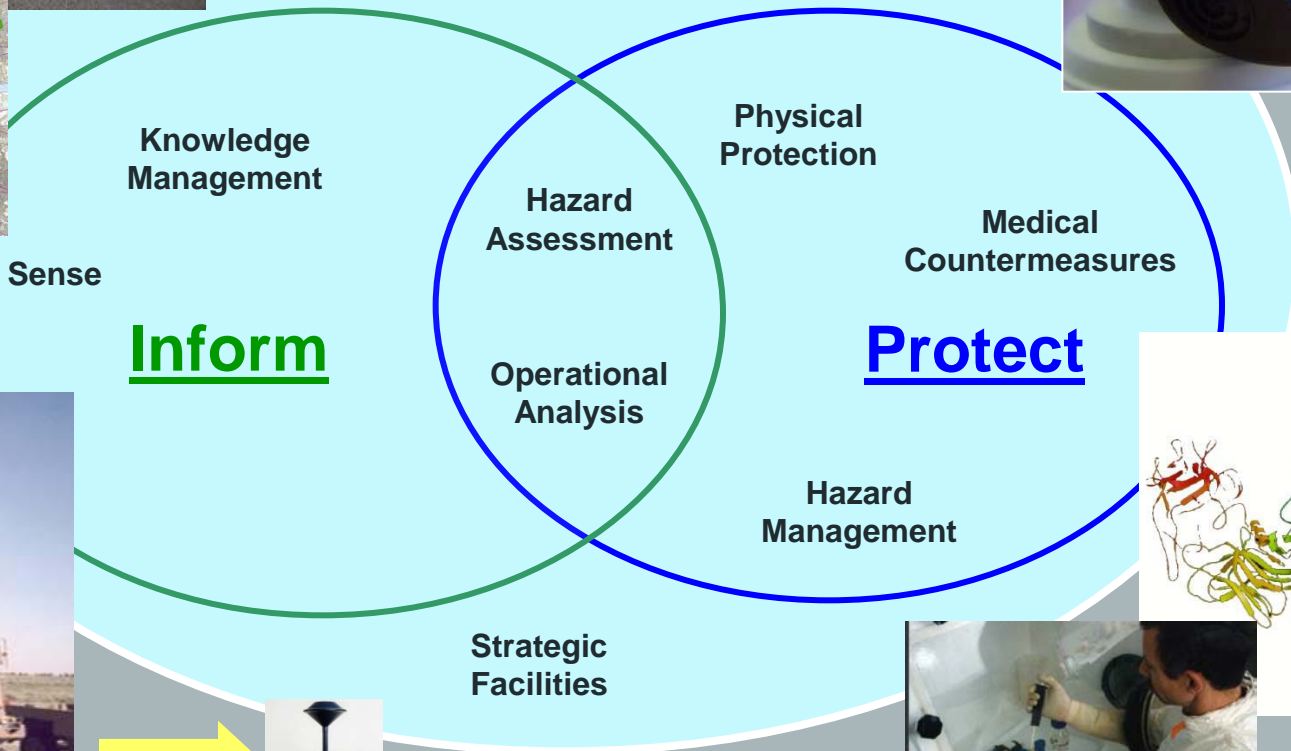
UK policy aim is to maintain our political and military freedom of action despite the presence, threat, or use of chemical, biological or radiological weapons

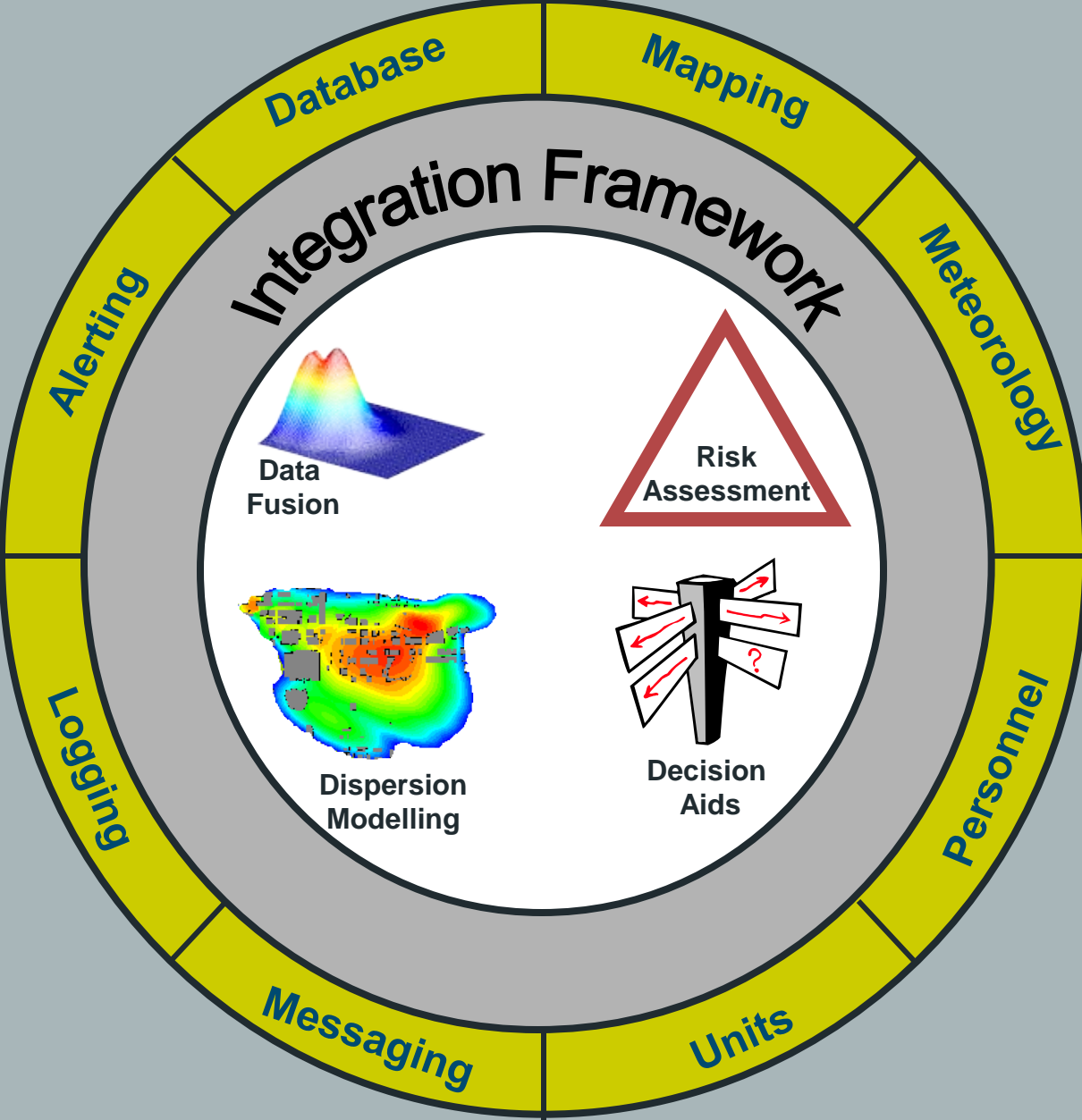


# A systems approach



## CBRN Protection





Exploit knowledge of toxicology, dispersion, detection and data fusion to inform planning and decision support tools.

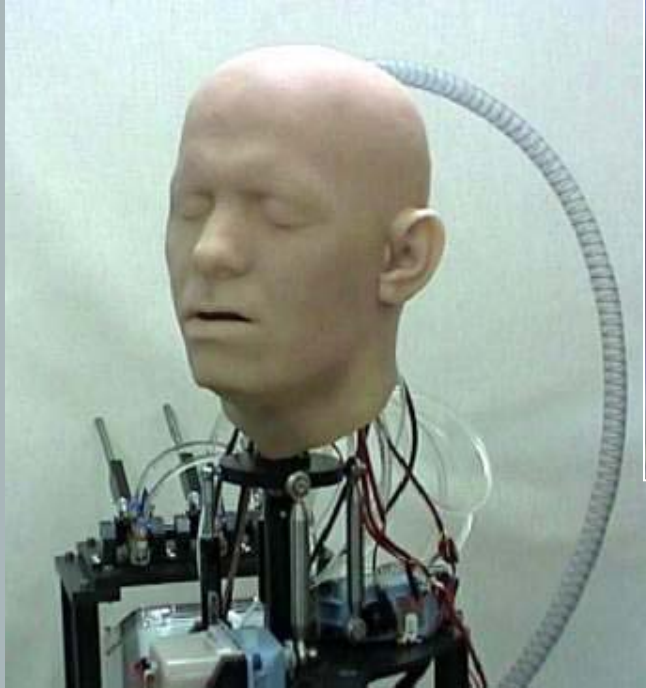
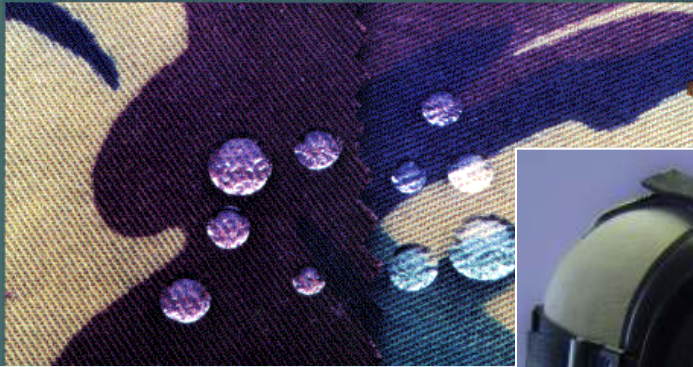
# Rapid Detection and Identification of CBR Agents



**A generic capability to detect all agents in time to protect those at risk is the ultimate aim**

**Includes rapid diagnosis of infection and analysis of suspect samples**

## Plasma Finish on Polyester/Cotton



**Understand the Trade-off Between Physical Protection and Operational Degradation and Translate the Knowledge into New Equipment**

# Identify Technologies to Facilitate Better CBR Hazard Management



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# CBR Medical Countermeasures



Pre-treatment  
Therapy  
Broad spectrum

# Questions?