

**The following presentation was given at:**

# **The 2015 SCAF Annual Conference**

*Tuesday 15th September 2015*

*The QEII Conference Centre, Westminster, London*

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# The Technology Race - how can Defence keep up?

Ron Finlayson

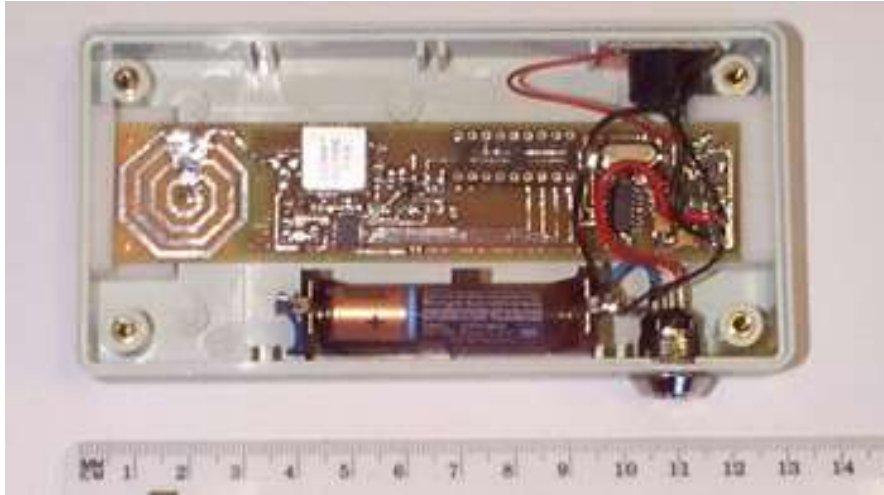
QinetiQ

SCAF Annual Conference

September 2015



We depend on GPS.....



Who is watching?.....



The information is out there....



> 80% of intelligence can be gained from open source

# Defence used to be in control.....



Radar



Thermal Imaging



Carbon Fibre



LCDs



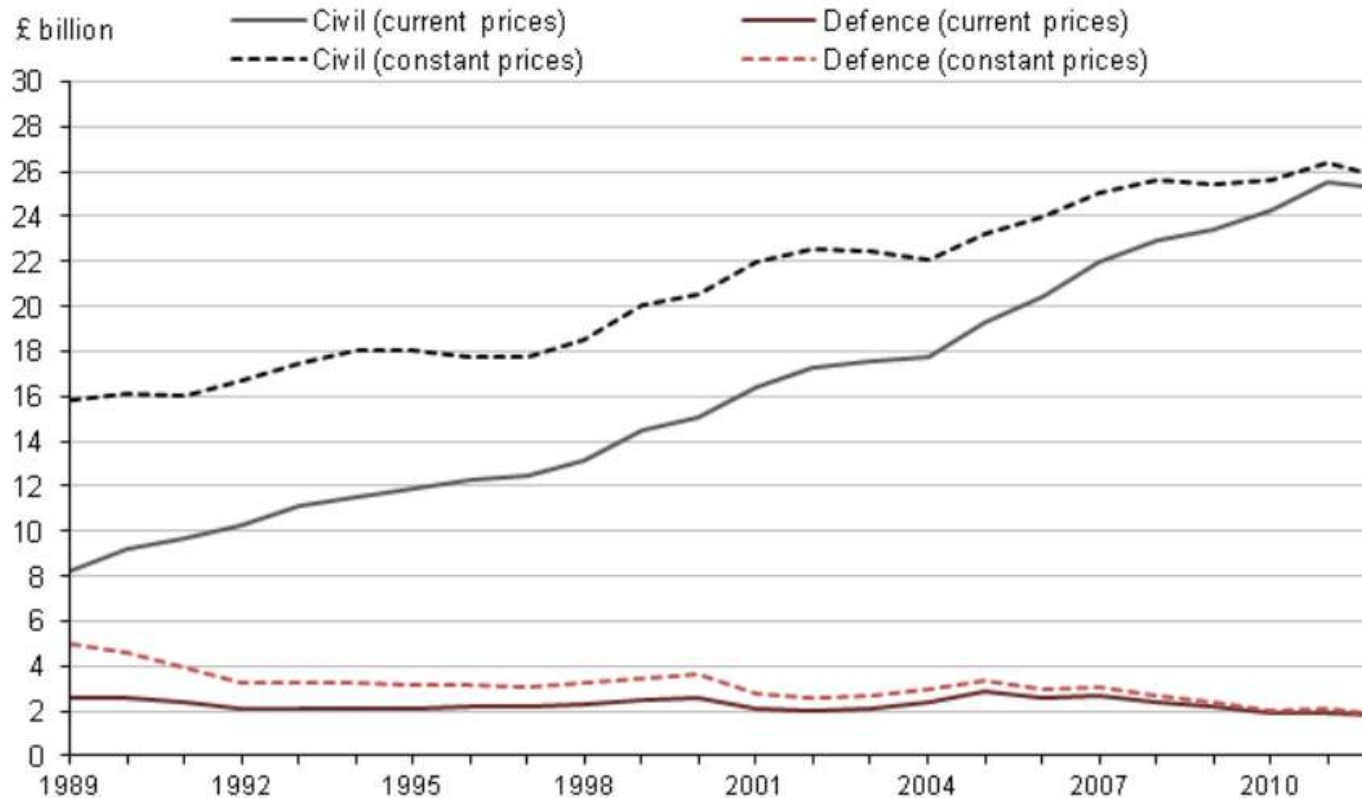
mmWave Imaging



ARPANet in 1974

# The balance between defence and civil R&D

Expenditure on civil and defence R&D performed in the UK 1989-2013



Source: ONS



# The future



- **the big data revolution and energy-efficient computing**
- **satellites and commercial applications of space**
- **robotics and autonomous systems**
- life sciences, genomics and synthetic biology
- regenerative medicine
- agri-science
- **advanced materials and nano-technology**
- **energy and its storage**



# Even sensitive technology is proliferating

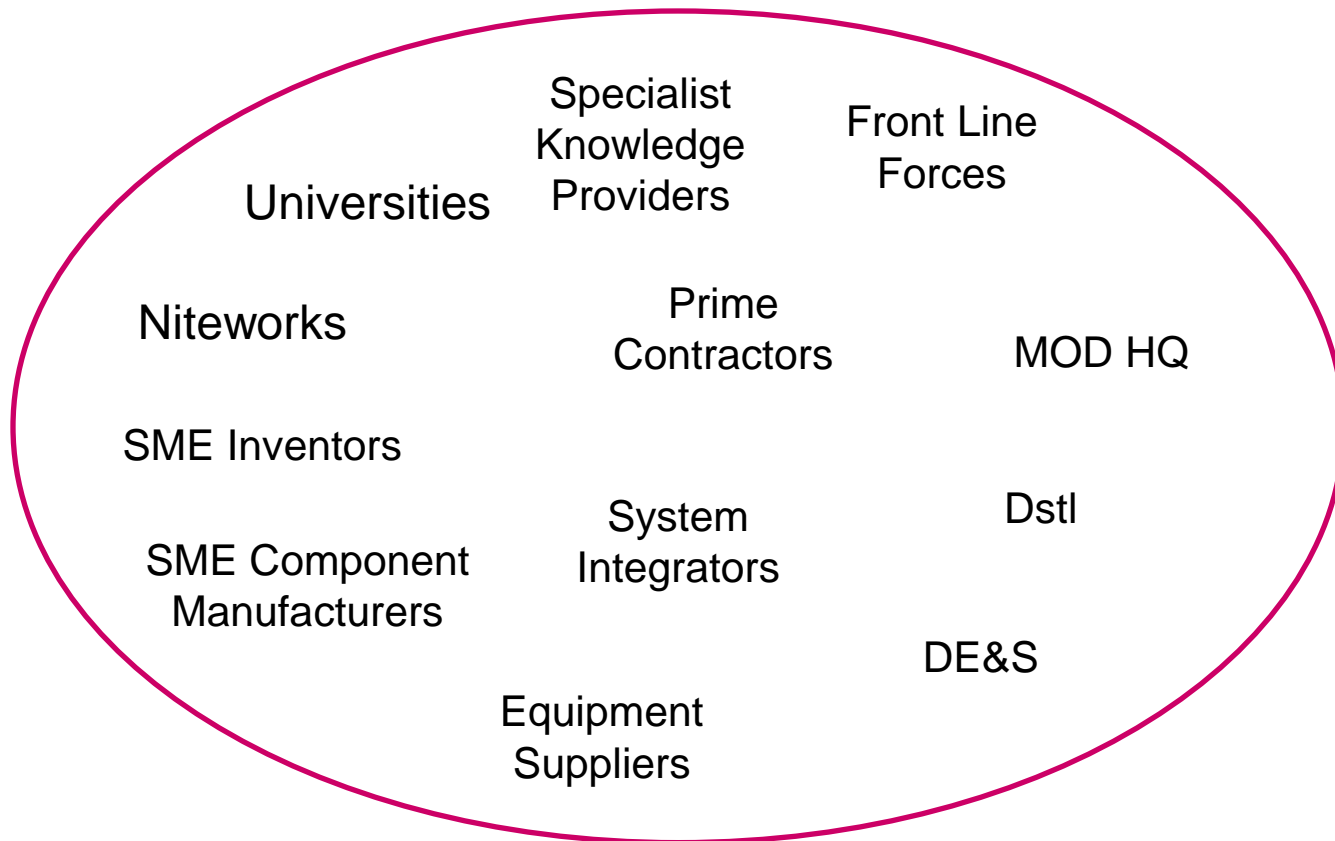
## **Theft of F-35 design data is helping U.S. adversaries -Pentagon**

- \* Classified F-35 program data secure, official says
- \* But theft of sensitive design data "a major problem"
- \* Testimony follows report on China and cyber espionage

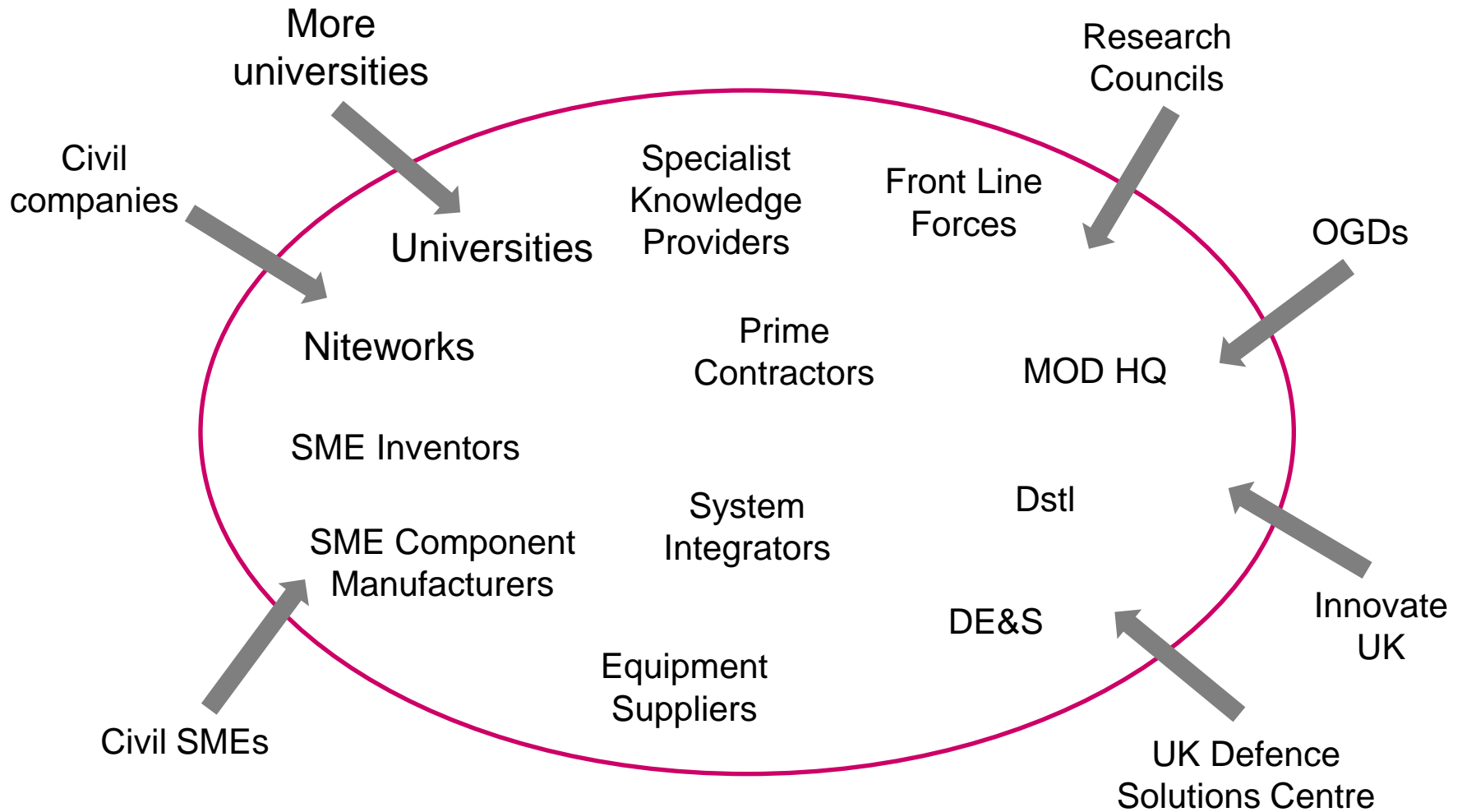
Source: Reuters June 2013



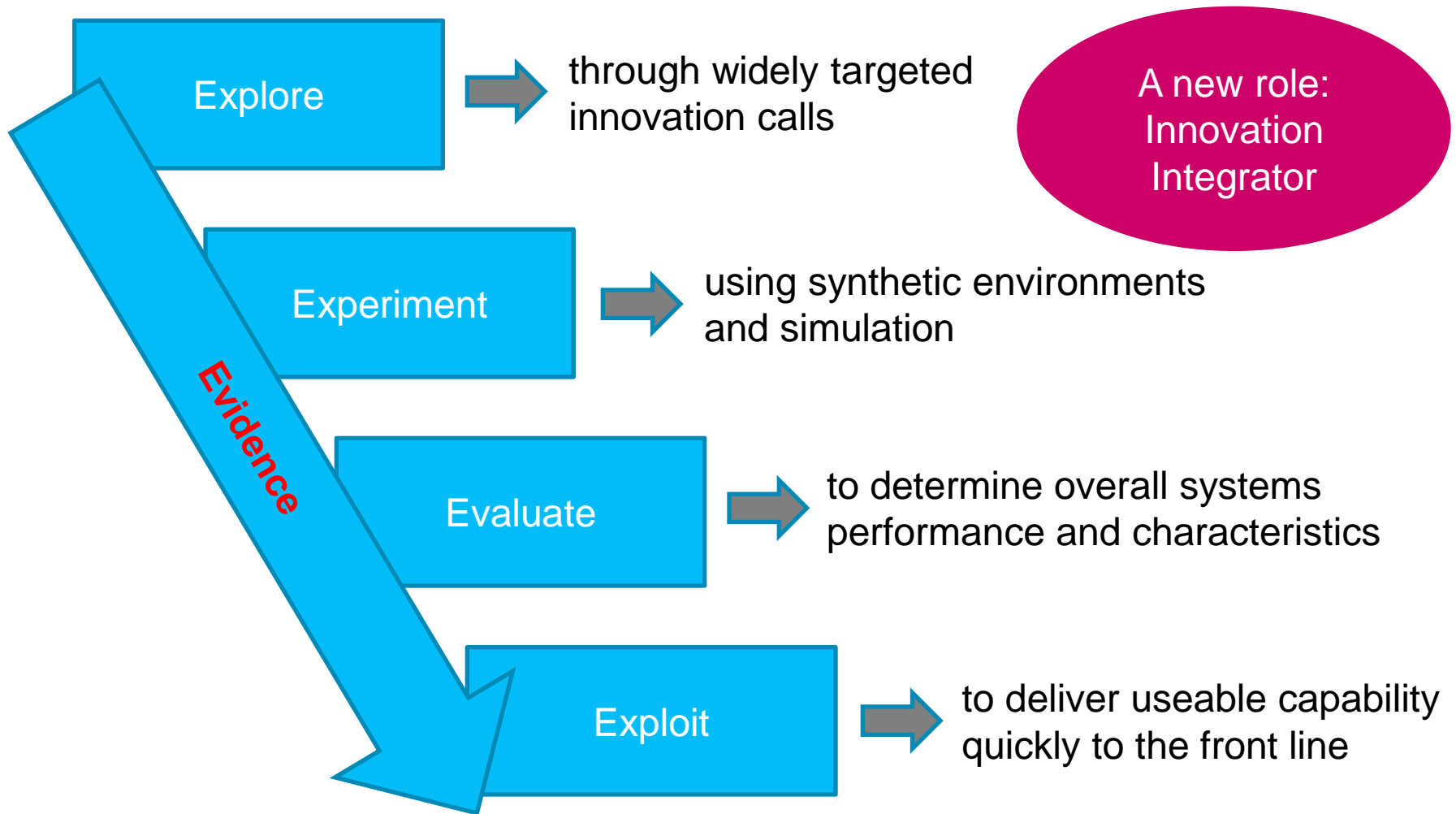
# The Defence Enterprise today



# The Defence Enterprise tomorrow

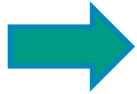


# Accelerating innovation



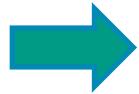
# How do we make this happen?

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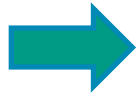
Extend the Enterprise

- beyond the traditional defence players



Accelerate innovation

- Innovation Integrator



Business models

- IP
- open architectures
- commercial models

