



Defence
Innovation Unit

Glasgow UDT Conference

26-27 June 2018



Importance of Innovation

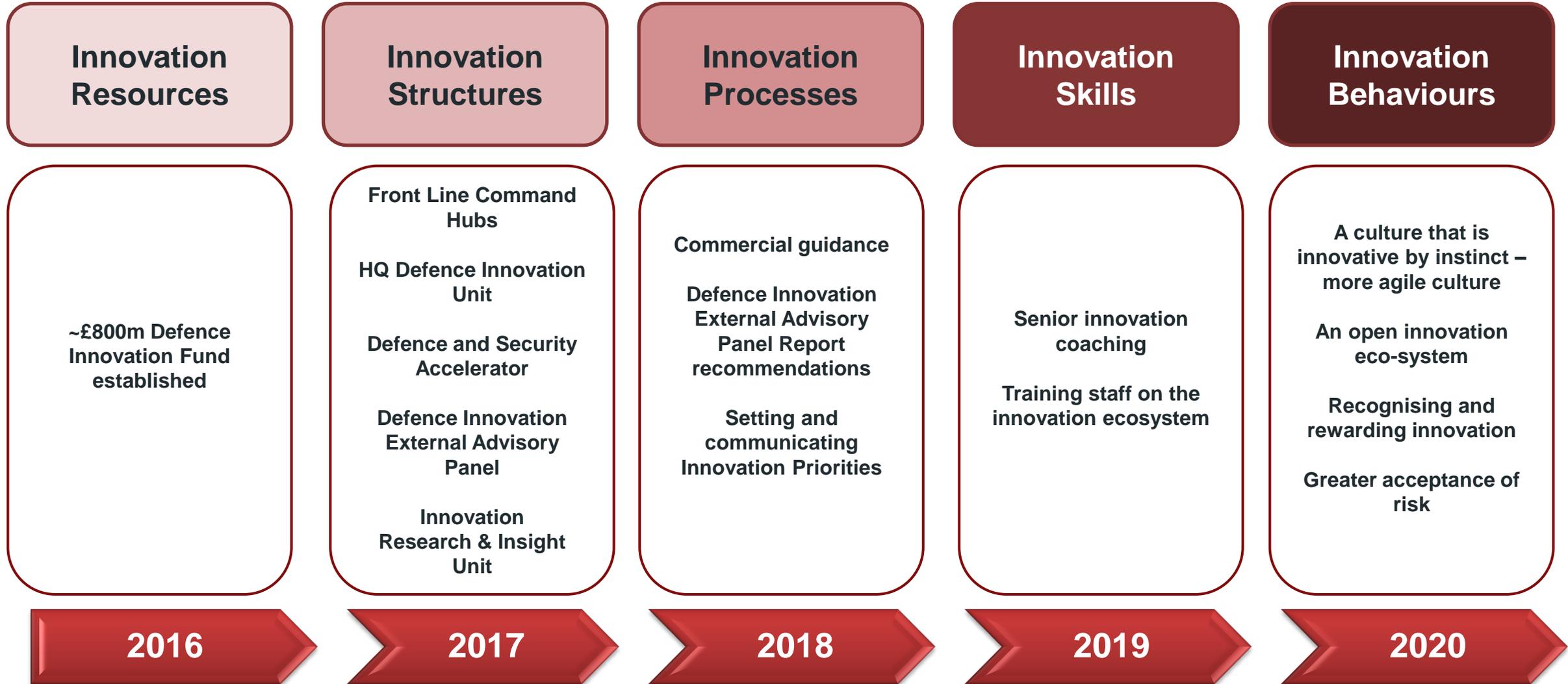
- The Global Technology Landscape has shifted.
- The private sector is mostly driving today's rapid pace of technological, social and cultural change.
- Technology creating greater opportunities... and risks as they become available to adversaries who may seek to use them against us.
- Advances in technology hold enormous potential for the UK's security and prosperity.
- We must adapt to stay ahead and maintain strategic edge of our Armed Forces into the future.

"Innovation is fundamental to Defence. With the international situation darkening, effectively harnessing new technologies and approaches will be critical to keeping the UK ahead of the curve and ultimately help our serving men and women protect the nation." Vice-Chief of Defence Staff (VCDS) - 31 January 2018.

"One of my key priorities is to drive the military innovation cycle faster than any adversary to sustain technological superiority. Our competitors are closing the gap because of our processes, not our talent." Dr. Michael Griffin, US Under Secretary of Defense for Research and Engineering.



Innovation Culture





Defence Innovation Fund

- Around £800m over ten years and represents a significant commitment by Defence.

Facilitate getting cutting edge innovations into successful front line pilots in under 3 years.

- We don't support research
- We don't fund demonstrations
- We let science and technology define technical readiness
- We let Commands define the needs



Defence Innovation Fund Progress

TLB Incentive Scheme

Twice yearly competition ending in March and September.
Matched funding by TLBs.

Themed Challenge (via DASA)

Challenge 1: Revolutionise human-information relationship	Dec 16
Challenge 2: Defence People Challenge	Mar 18
Challenge 3: Defence Growth Partnership Innovation Challenge	Jan 18

Open Call (via DASA)

Any idea - open 365 days a year

Innovation Events

AI Hackathon	Nov 17
Maritime Conference	Jan 18
Pitch@Palace	Jan 18



Defence Innovation Fund Projects



Man overboard

Synthetic artillery training



**Type 45 maintenance
prediction**

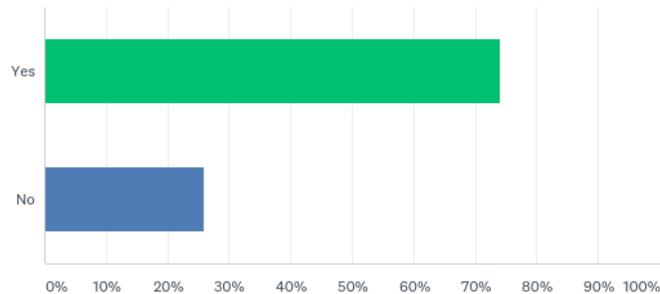
AI environment sensors





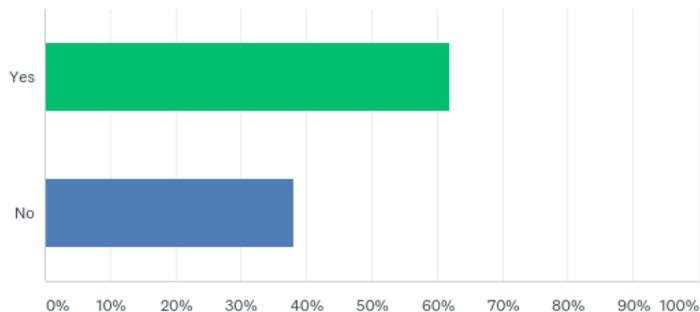
What Does Industry Think?

Have you seen evidence that innovation is a higher priority on the defence agenda over the past 18 months?



'The Language and, to a lesser extent, culture within Defence has changed to prioritise innovation though it is not yet mainstream business as usual as many business and management processes haven't changed'

Do you think defence's efforts to be more innovative are moving in the right direction?



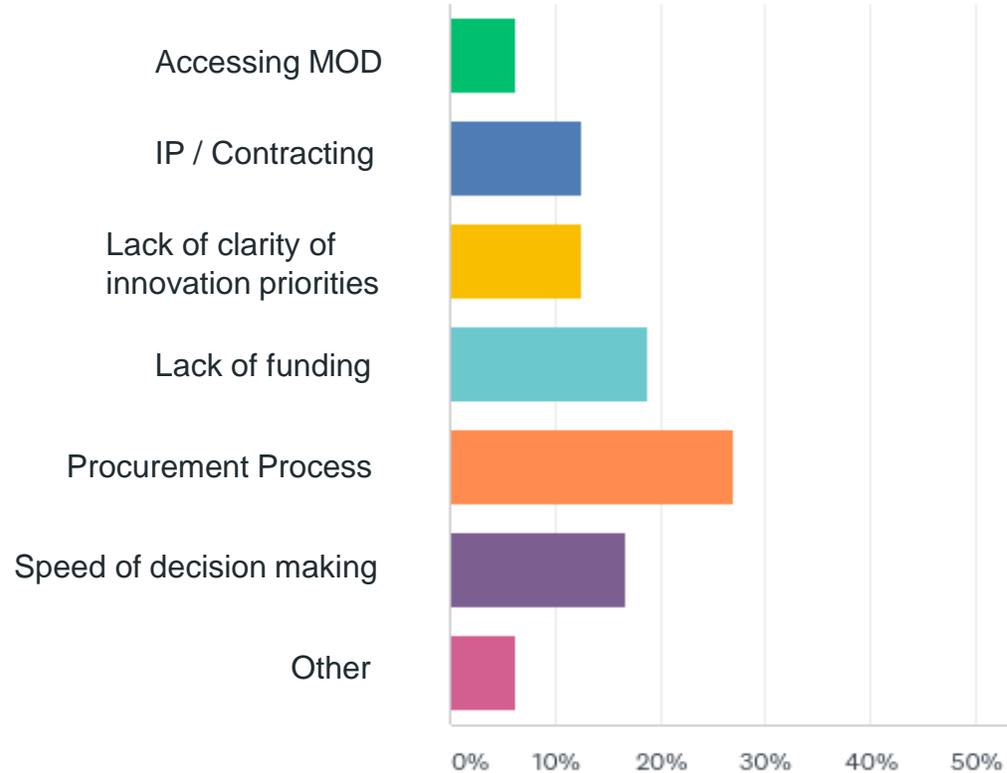
'Yes, but the pace, investment and subsequent exploitation are too slow'

'Intentions are good, but mechanisms and decisions are still routed in bureaucracy'



What Does Industry Think?

What do you consider the largest barriers to defence innovation?



'Barriers includes lack of clarity of innovation priorities and unreformed procurement processes.'

'The procurement process for mainstream programme discourages innovation with its compliance-to-requirement focus. MOD should focus upon the outputs – capabilities and threats to be overcome – not on prescribing the what those capabilities are met'

'MOD's lack of link between R&D and equipment procurement'

'In order, issues are speed of decision making, procurement processes, lack of clarity of innovation and lack of funding'



Looking Forward - Innovation Ecosystem

- Innovation thrives in a diverse, but connected ecosystem.
- We are still too isolated in three key domains:

1. **Inter-Departmental innovation collaboration**
2. **International innovation co-development**
3. **Connecting to Private Sector Capital**

