



ARPA AS A 'PUBLIC SECTOR, NEW TECHNOLOGY VENTURE FUND'

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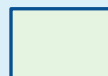
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OUTLINE

ARPA's role is to deliver technology solutions for national security challenges with focus and speed.

- Learnings from InnovateUK
- Comparing ISCF, DARPA and the desired properties for ARPA-UK
- Why thinking like a Venture Fund makes sense
- A straw man proposal for ARPA-UK

Comparison	Industrial Strategy Challenge Fund (ISCF)	DARPA	ARPA-UK PROPOSAL
Purpose	Stimulate the UK economy Raise productivity	National security: To not be strategically surprised	National security broadly
Oversight	Monthly Steering Board inc BEIS and HMT. Quarterly to UKRI Board.	Annual written report to Congress	Annual report to Treasury & ARPA Board No independent review for 3 years
Governance	Challenges developed in partnership with industry and Govt, approved by BEIS subject to business case then by HMT	Programme Managers hired with their proposal. Generally appointed for 3-5 years	Single high level Board. Programme leaders hired with business plan. Funded for ~3 years.
Approval authority	<£10m = Challenge Director >£10m = ISCF Steering Board >£50m = BEIS SoS >£70m = HMT/ Ministerial	Arms –length DARPA review and approval programmes by DARPA Director	HMT budget line through BEIS to acceptable arms-length Host Institute.
Scale	£ 2.7Bn, 20 challenges, 3 waves. Range from £33m to £274m	\$3,427Bn in 2019. Up to 100 challenges, each ~ \$100m.	£800M over 5 years. Start with 3 challenges of ~ £50-100M in three different areas of security.
Matched Funding	50:50 matched funding from industry.	No matched funding, no labs	No match, No labs. Complete focus.
Recruitment and salary	typically longlist 50-100 candidates. Challenge directors are UKRI employees	1 in 100 are appointed. Max salary ~ £180k. Report to Darpa office	CEO level salary ~ £180K



DARPA and current proposal similar but different from ISCF



Variations across all three programmes

VC INVESTMENT CHECKLIST

What?

How?

special sauce?

Market, competition?

Risks?

Cost & benefit?

Why you, why now?

Milestones For success?

HEILMEIER CATECHISM (DARPA)



What are you trying to do? Articulate your objectives using absolutely no jargon.



How is it done today, and what are the limits of current practice?



What is new in your approach and why do you think it will be successful?



Who cares? If you are successful, what difference will it make?



What are the risks?



How much will it cost?



How long will it take?



What are the mid-term and final “exams” to check for success?

PROPOSAL FOR ARPA



- Deliver on national security challenges with focus and speed
- ARPA is a budget line, a virtual agency using existing infrastructure. No additional legislation.
- Programme Leaders are entrepreneurial 'CEO' with a small - predominantly industrial- advisory Group
- Single high- level oversight board : UKRI Chair, CST Chair, GCSA, Minister from BEIS and HMT
- Board selects challenge area and Programme Leaders (PLs) based on people and business plan. InnovateUK runs the process.
- Funding provided as a ring-fenced budget line through a suitable host Institute.
- Programme Leader with their SAB select and manage projects within their ARPA budget and report annually to Board
- Single budget allocation only. Multiple possible exits for PL and follow-on funding from existing investment organisations.