

Introduction to ARIA

February 2024



Unlocking scientific and technological breakthroughs which could benefit everyone.

- ARIA is an R&D funding agency, built to unlock scientific and technological breakthroughs to benefit everyone.
- Established by the UK Government in January 2023 with high levels of autonomy and flexibility granted via the ARIA Act.
- We fund teams of scientists and engineers to pursue research at the edge of what is technologically or scientifically possible.



Executive Team and Board of Directors



Ilan Gur CEO



Antonia Jenkinson CFO/COO



Pippy James Director of Product



Dan Cole Chief of Staff



Matt Clifford Chair Co-Founder + CEO, **Entrepreneur First**



David MacMillan Non-Executive Director

Nobel laureate + organic chemist



Kate Bingham Non-Executive Director Venture Capitalist +

former Chair of the



Angela McLean Non-Executive Director

Government Chief Scientific Advisor



Patrick Vallance Non-Executive Director

Former Government Chief Scientific Advisor



Sarah Hunter Non-Executive Director Technology and public

policy adviser



Stephen Cohen Non-Executive Director

UK Civil Service + Gambling Commission Commissioner



Our Programme Directors are scientists and engineers with diverse fields of expertise and a range of experience across industry, academia and government.

They're tasked with developing a concrete vision for how technology could enable a better future, and directing funding into research that can make it a reality.



Angie Burnett



David 'davidad' Dalrymple



Sarah Bohndiek



Gemma Bale



Mark Symes



Suraj Brahmavar



Jenny Read



Jacques Carolan



Three core tenets of a new kind of R&D agency

Bold, long-term

ARIA pursues R&D in under-explored areas that may seem far-fetched, but could unlock world-changing capabilities.

People, then projects

We empower our Programme Directors, and the research teams they support, with the resources and freedom to dream big and experiment.

Multidisciplinary

Programme Directors fund and manage projects across the full spectrum of R&D disciplines, approaches, and institutions to discover new pathways.



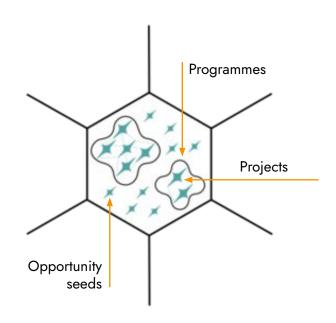
How it works in practice

First, our PDs define an opportunity space which is likely to yield breakthroughs.

Then, PDs launch and manage **programmes** that direct funded **projects** across research disciplines/institutions toward a focused objective.

Outside of programmes, PDs also fund **opportunity seeds**. These are lighter touch in budget and management.

The result — technical breakthroughs, new communities of practice, institutional capacity, and capital inflows, all of which are essential for large-scale transformation.



How we fund



1. Our responsibility starts with the UK taxpayer

We work to ensure that the projects and programmes we fund have the greatest chance of bringing significant public benefit to the UK.

2. We're institution-, background- and location-agnostic

We default to open competitions, and fund the best ideas and people to get the job done whoever and wherever they are.

3. We drive transformational not incremental change

We are actively involved in the direction of funded projects, and have high expectations on speed, adaptability and safety.

4. We're globally minded in our reach and ambition

We fund individuals and organisations in and outside of the UK, if their work can boost the success of an ARIA programme or otherwise benefit the UK.

4. We always seek to catalyse not compete

We do not perform internal research that could be seen as competitive with prospective awardees, retain IP rights to the work we fund or take equity in resulting spin-outs.

Read more in our <u>funding FAQ</u>



Our opportunity spaces



Programmable Plants: A technology platform for sustainable abundance

The opportunity:
develop new plants to provide all of society with
abundant and sustainable resources



Precisely interfacing with the human brain at scale

The opportunity: build next-generation minimally-invasive neurotechnologies to understand and repair the brain.



Nature Computes Better - Let's catch up

The opportunity: build dramatically more efficient computers using principles ubiquitously found in nature.



Smart machines need smarter bodies

The opportunity:
discover advances in robotic hardware that
unlock the potential of intelligent machines,
leading to a step change in human productivity.



Our opportunity spaces



Math for Safe AI: Mathematics and modelling are the keys we need to safely unlock transformative AI

The opportunity: uncover technical solutions using mathematics and modelling to create globally transformative AI systems with provable safety.



Scoping Our Climate: A new lens on climate science

The opportunity:
deploy breakthroughs in optics to enable
more accurate climate predictions and
improve human responses to climate change.



Future-proofing Our Climate: Managing our climate and weather through responsible engineering

The opportunity: create a scientific framework that allows the UK and the world to responsibly develop, and if appropriate, deploy climate and weather intervention technologies.



Live opportunities and next steps

Programme Director	Opportunity space	Programme thesis	Next steps
Suraj	Nature Computes Better – Let's catch up	Unlocking compute hardware at 1/1000th the cost	Opportunity seed funding call live now Programme funding coming Feb '23
Davidad	Math for Safe AI: Mathematics and modelling are the keys we need to unlock safe and transformative AI	<u>Safeguarded AI:</u> <u>Constructing safety by</u> <u>design</u>	Launch a funding opportunity
Jenny	Smart machines need smarter bodies	Launching Feb '24	Publish programme thesis



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Programme Director	Opportunity space	Programme thesis	Next steps
Mark	Future-Proofing Our Climate: Managing our climate and weather through responsible engineering	Launching in March '24	Publish programme thesis
Jacques	Precisely interfacing with the human brain at scale	Launching March '24	Publish programme thesis
Angie	Programmable Plants — A technology platform for sustainable abundance	Launching March '24	Publish programme thesis
Gemma & Sarah	Scoping Our Planet: A new lens on climate science	Launching April '24	Publish programme thesis



Follow our progress and get in touch



For updates about ARIA's work: X/Twitter, LinkedIn + Substack (QR)

Learn more, sign up for updates and get in touch on <u>our website</u>.