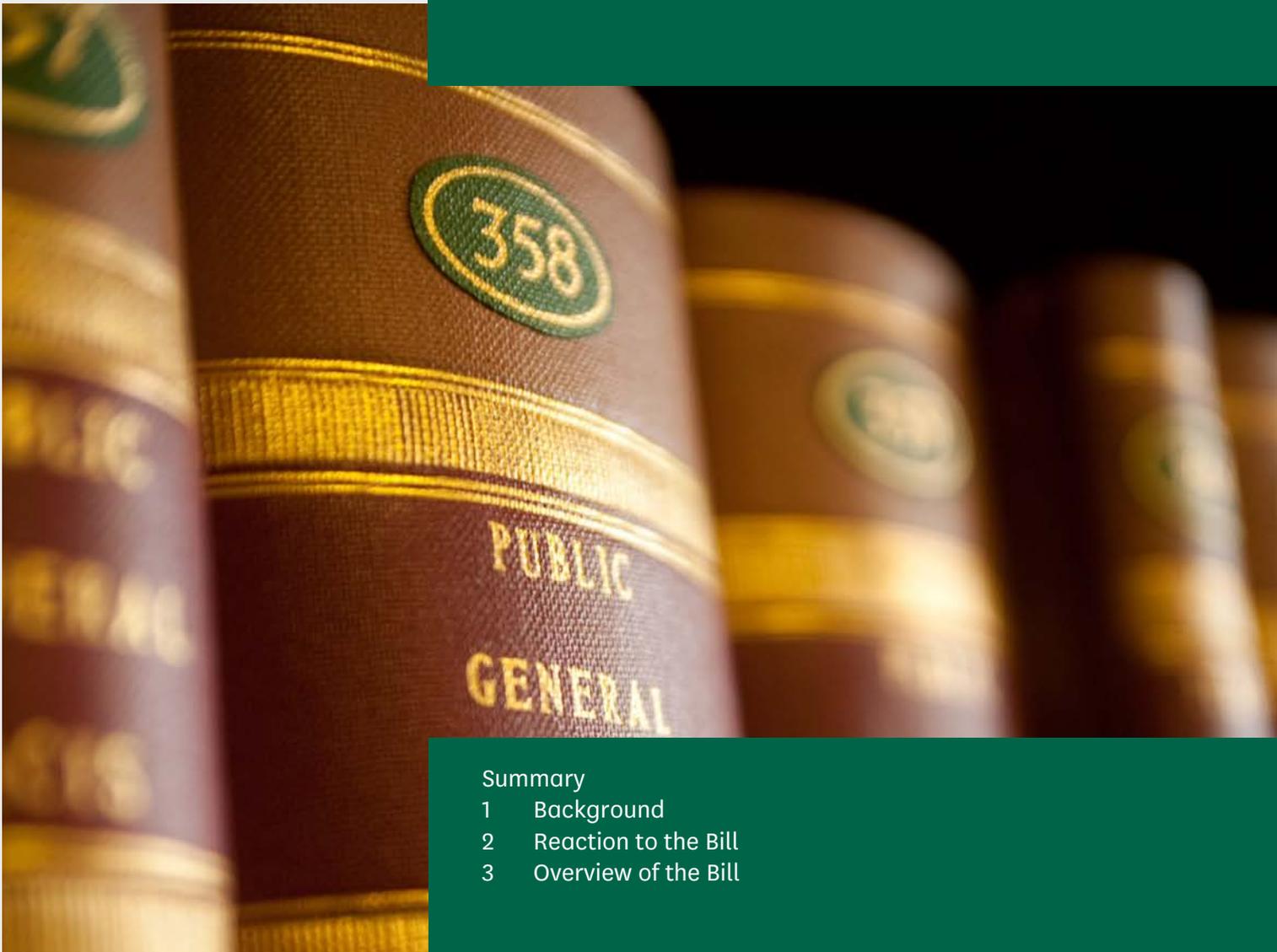


By Elizabeth Rough

15 July 2021

Advanced Research and Invention Agency Bill 2019-21 and 2021-22



Summary

- 1 Background
- 2 Reaction to the Bill
- 3 Overview of the Bill

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Summary

The [Advanced Research and Invention Agency \(ARIA\) Bill](#), 2019-21 [Bill 264], was introduced in the Commons on 2 March 2021 and had its Second Reading on 23 March 2021. The Committee Stage ran from 14 to 22 April 2021 and the Report Stage and Third Reading both took place on the 7 June 2021, in the new Parliamentary session. This briefing from the Commons Library analyses the Bill's provisions.

Context for the Bill

The Bill seeks to establish a new research funding agency specifically aimed at providing long-term support for “high-risk, high-pay off” “blue-skies research”. The term ‘blue-skies research’ has been used to refer to research endeavours that do not always have an obvious and immediate ‘real world’ application but that have the potential to be ground-breaking. The proposed new agency is “[broadly modelled](#) on the US Advanced Research Projects Agency”, a research and development agency of the United States Department of Defense (now known as DARPA). The Bill is sponsored by the Department for Business, Energy and Industrial Strategy (BEIS).

In the March [2020 Budget](#), the Chancellor announced that the UK Government would invest “at least £800 million” in this new agency as part of the Government’s wider commitment to increase public research and development (R&D) funding to £22bn by 2024-25 and increase overall UK spending on R&D to 2.4% of GDP by 2027.

What does the Bill do?

As introduced, the Bill does several things: first, it establishes the Advanced Research and Invention Agency (ARIA) as a statutory corporation. Second, it sets out ARIA’s functions. These are focused on both conducting “ambitious” scientific research with a tolerance to failure, and on developing, exploiting and sharing scientific knowledge, such as translating basic scientific research into more commercial technologies. Third, the Bill enables the Secretary of State to make grants to ARIA and provide it with funding.

The Bill is divided into 15 Clauses and has 3 Schedules. The main clauses are as follows:

- **Clause 1** establishes ARIA as a “body corporate”.
- **Clause 2** describes ARIA’s functions as conducting and commissioning scientific research, sharing findings, and exploiting scientific knowledge (and/or supporting others to undertake these functions).

- **Clause 3** allows ARIA to undertake “ambitious” research projects whilst also having a high tolerance to project failure.
- **Clause 4** covers ARIA’s funding and enables the Secretary of State to make grants to ARIA, with **Clause 7** permitting the transfer of staff and property, rights and liabilities to ARIA.
- **Clause 5** sets out that ARIA must comply with any national security directions given by the Secretary of State, while **Clause 6** stipulates when ARIA must provide information requested by the Secretary of State.
- **Clause 8** allows for the dissolution of ARIA after ten years have elapsed since the passing of the Bill.
- **Clause 10** allows the Secretary of State to modify other legislation in line with any provision in the ARIA Act.

How does the Bill apply to the UK nations?

The Bill applies to the whole of the United Kingdom. Supporting scientific research and development sit within the legislative competence of the devolved nations, although specific reservations do exist. Clauses 1-4, 6-8, 10-12 and Schedules 1 and 2 all require legislative consent motions with respect to Scotland, Northern Ireland and Wales.

Reaction to the Bill

The Bill, and the establishment of ARIA, have been broadly welcomed by stakeholders. Questions and concerns have been raised, however, about the form, function and governance of the new Agency, as set out in the Bill. [The Opposition](#) has called particular attention to ARIA’s exemption from “existing Public Contract Regulations” and that it will not be subject to the *Freedom of Information Act 2000*.

Greg Clark, the [Chair](#) of the Commons Science and Technology Committee (which held an inquiry into [A new UK research funding agency](#)), expressed concerns that ARIA lacked “a clear focus or purpose”, and that there was much that remained unclear about what ARIA is meant to be. [Academics](#) have also pointed to the lack of a clear customer or client for ARIA and have argued that there is need for further clarity about its relationship with the UK’s existing R&D funding infrastructure, such as UK Research and Innovation (UKRI).

Second reading and Committee Stage

There was broad, cross-party support for the Bill at both the Second Reading and Committee Stages, though areas were identified where improvements were argued to be needed. At the Committee Stage, 25 amendments were moved though none were successful; 16 were negatived on division, 1 was negatived without division and 8 were withdrawn after debate. No Government amendments were tabled. The amendments moved focused on 5 broad areas:

- the relationship of the Agency to UKRI;
- the appointment, composition and governance of ARIA's board and leadership team;
- the details to be included in ARIA's annual report;
- ARIA's function and mission;
- ARIA's exemption from the Freedom of Information Act 2000 and public contract regulations.

Report Stage and Third Reading

The Report Stage and Third Reading of the Bill took place on 7 June 2021. Many of the Report Stage amendments were similar to those tabled at Committee stage. They focused on:

- defining ARIA's mission in relation to a specific goal, such as the transition to net zero carbon emissions
- heightening Parliamentary scrutiny of ARIA, including the appointment of its executive and non-executive members
- providing extra detail on what should be included in ARIA's annual report
- making ARIA subject to the Freedom of Information Act 2000 and the Public Contract Regulations 2015

Three amendments were moved to a Division. Each was defeated and the Bill was reported without amendment. The Bill was read for a third time on the same day and passed without Division.

The Bill had its First Reading in the Lords on 8 June 2021. At the time of writing, a date had yet to be set for its Second Reading.

1 Background

The [Advanced Research and Invention Agency Bill 2019-21](#) [Bill 264] was announced in the Queen’s Speeches in October and December 2019 and had its first reading on 2 March 2021. The Bill, as introduced, does several things: first, it establishes the Advanced Research and Invention Agency (ARIA) – a new type of funding body supporting “high-risk, high-payoff research” – as a statutory corporation. Second, it sets out ARIA’s functions. These are focused on both conducting “ambitious” scientific research with a tolerance to failure, and on developing, exploiting and sharing scientific knowledge, such as translating basic scientific research into more commercial technologies. Third, the Bill enables the Secretary of State to make grants to ARIA and provide it with funding. It is anticipated that the Agency will be fully operational by 2022.¹

Several Government documents were published alongside the Bill:

- [Explanatory notes](#)
- [Delegated powers memorandum](#)
- [Press release](#)
- [Advanced Research and Invention Agency \(ARIA\): policy statement](#)

1.1 Emulating the US Advanced Research Projects Agency

A commitment to establishing “a new agency for high-risk, high-payoff research, at arm’s length from government” was made in the Conservative Party 2019 manifesto.² The Background Briefing Notes to the December 2019 Queen’s Speech indicate that the Government is intending to use the powers in the ARIA Bill to support:

a new approach to funding emerging fields of research and technology [...] provid[ing] long term funding to support visionary high-risk, high-pay off scientific, engineering, and technology ideas.³

¹ Practical Law Life Sciences, [Advanced Research and Invention Agency Bill introduced to UK Parliament](#), 3 March 2021

² [The Conservative and Unionist Party Manifesto 2019](#), p40

³ Prime Minister’s Office, [The Queen’s Speech December 2019 background briefing notes](#), 19 December 2019, p107

The new body delivering this “new approach to funding” is “broadly modelled on the US Advanced Research Projects Agency” (ARPA).⁴ ARPA was established in 1958 by President Eisenhower in response to the USSR’s launch of ‘Sputnik’ – the world’s first artificial satellite – and fears that the United States was “falling behind” in key areas of advanced technology.⁵ It remains in operation today (though has since been re-named the Defense Advanced Research Projects Agency - DARPA) and in 2019 had a budget of \$3.427 billion.⁶

The Explanatory Notes to the ARIA Bill emphasise that the new agency will seek to emulate “key features of the US ARPA model”, including:

1. Organising ambitious research goals around the long-term programmes of work which are led by so-called Programme Managers.
2. Significant autonomy for Programme Managers who are able to take advantage of innovative and flexible approaches to programme funding.
3. A tolerance to failure in pursuit of transformational breakthroughs embedded in its culture. Only a small fraction of ambitious goals will be achieved, however ARIA will provide value from its failures, including spill-over benefits gained from intermediary outputs.⁷

In the March 2020 Budget, the Chancellor announced that the UK Government would invest “at least £800 million in a new blue-skies funding agency [...] modelled on the extraordinary ‘ARPA’ in the US” to the end of this Parliament (2024-25); a point reiterated in the Government’s UK Research and Development Roadmap, published in July 2020.⁸ The ARIA Bill also sits in the context of the Government’s commitment to increase public research and development (R&D) funding to £22bn by 2024-25 and increase overall UK spending on R&D to 2.4% of GDP by 2027; a target first announced in November 2017 in the Government’s Industrial Strategy White Paper.⁹

Following the announcements of a new Agency in successive Queen’s Speeches, the Commons Science and Technology Select Committee launched an inquiry in April 2020 on [A new UK research funding agency](#) to examine the “nature and purpose” of the new body. The Committee published its findings on 12 February 2021: see Commons Science and Technology Committee, [A new](#)

⁴ Prime Minister’s Office, [The Queen’s Speech and Associated Background Briefing, on the Occasion of the Opening of Parliament](#), 14 October 2019, p93.

⁵ Richard Barber, [The Advanced Research Projects Agency](#), 1958-75, December 1975

⁶ DARPA, [Budget](#), not dated

⁷ Advanced Research and Invention Agency Bill, [Explanatory Notes](#), March 2021

⁸ HM Treasury, [Budget 2020](#), March 2020; HM Government, [UK Research and Development Roadmap](#), July 2020, p17

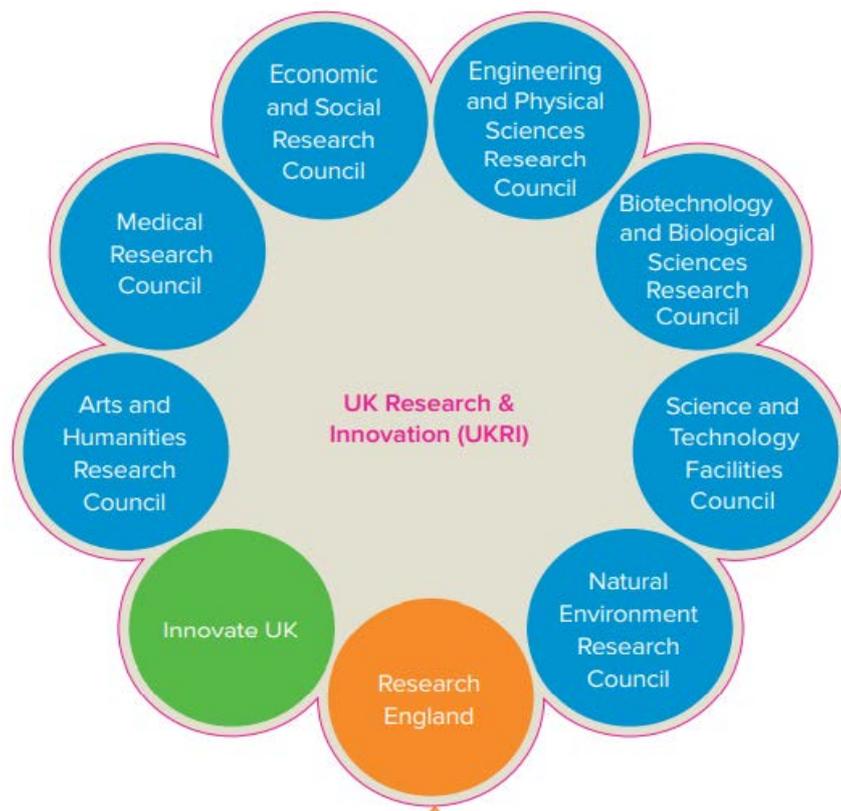
⁹ HM Treasury, [Budget 2020](#), March 2020; HM Government, [Industrial Strategy. Building a Britain fit for the future](#), November 2017

[UK research funding agency](#), Third Report of Session 2019–21, HC 778 (see also section 1.4 of this briefing).

1.2

UK Research and Innovation (UKRI)

At present, the main body through which the UK Government administers public funding for UK R&D is UK Research and Innovation (UKRI); the national funding agency investing in science and research. UKRI is the strategic body which brings together the seven Research Councils, Innovate UK and Research England and has a combined budget of more than £6 billion (see diagram below).¹⁰ It was created under the [Higher Education and Research Act 2017](#) following a Review of the UK Research Councils (“[Ensuring a successful UK research endeavour](#)”) in 2015. The review was requested by Ministers and undertaken by Sir Paul Nurse, then President of the Royal Society. The diagram below, jointly produced by the UK National Academies illustrates the composition of UKRI:



Source: National Academies, [How does the UK government invest in R&D?](#), not dated.

¹⁰ [UK Research and Innovation](#), gov.uk, not dated

Dual support system

Research is funded through UKRI in two ways:

- First, through grants allocated by the individual research councils to specific projects that link to their respective disciplines. These are typically allocated through open competition.
- Second, by Research England as ‘block grants’ to higher education institutions, based on the outcomes of the [Research Exercise Framework](#) (REF – the system for assessing the quality of research in UK Higher Education Institutions (HEIs)). This funding can be spent according to the HEI’s own priorities; it is not tied to a specific research project.

Collectively, this funding approach has traditionally been referred to as the ‘dual support system’.

Under Section 103 of the [Higher Education and Research Act 2017](#), the Secretary of State must “have regard” to the “Haldane principle”, the “balanced funding principle” and advice from UKRI when granting funds to UKRI. The Haldane principle is defined in the Act as the:

principle that decisions on individual research proposals are best taken following an evaluation of the quality and likely impact of the proposals (such as a peer review process).

In practice, the principle is usually understood to mean that decisions about what to spend research funds on should be made by researchers rather than politicians; the approach has its origins in a report of the [Machinery of Government Committee](#), chaired by former Lord Chancellor Richard Haldane, published in 1918.¹¹

The balanced funding principle requires the Secretary of State to consider the importance of the dual support system when allocating funding, so that a “reasonable balance” is achieved between the block grant funding allocated through Research England and the competitive grant funding through the seven Research Councils.

The National Academies¹² have emphasised that the language used in Section 103 of the 2017 Act – that the Secretary of State “must have regard” to both the principles outlined above and the advice of UKRI – provides Parliament with an important mechanism for holding the Government to account with regard to its grant allocation to UKRI and the terms of that allocation. The Academies note that if the Secretary of State chooses not to follow (or is perceived to not be following) the principles and/or the advice of UKRI when

¹¹ The Haldane Principle does not apply to Innovate UK funding.

¹² UK’s four independent National Academies are the Royal Society, Royal Academy of Engineering, British Academy and the Academy of Medical Sciences.

allocating, then Parliament has recourse to question the Government's reasoning.¹³

Commercialising research

One of ARIA's functions is to “research, develop and exploit scientific knowledge”. The UK's research and innovation system has long been criticised for having a poor track record of translating, or commercialising, basic research into applied technologies. When the Government announced the establishment of the [Industrial Strategy Challenge Fund](#) in November 2016, for example, it stated that its purpose was to “address Britain's historic weakness on commercialisation and [turn] our world-leading research into long-term success” (see section 1.3 below for further discussion of the Industrial Strategy Challenge Fund).¹⁴

Previous structural reforms, such as the creation of UKRI, have also sought to address this issue. The establishment of UKRI marked an effort to “create a strong, agile and joined up funder of research and innovation for the UK” that was “sufficiently integrated, strategic and agile [...] to drive discovery and growth”.¹⁵ Notably, one of the key aims of UKRI was to “strengthen collaboration between the research base and the commercialisation of discoveries in the business community, ensuring that research outcomes can be fully exploited for the benefit of the UK” through the integration of Innovate UK (the UK's innovation agency) into UKRI.¹⁶

The former Science Minister, Lord Willetts, noted that the incorporation of Innovate UK into UKRI had “helped to position UKRI as the body which can span fundamental research to business-led innovation, and make the case for the £7bn uplift to R&D that was a central part of the Industrial Strategy”. When commenting on ARIA he also questioned how Innovate UK might “fit in” with the new Agency.¹⁷ The Government has been largely silent about the Agency's relationship with UKRI, except to say that ARIA will be an “independent entity”. Giving evidence to the Commons Science and Technology Select Committee on 17 March 2021, the Business Secretary emphasised the differences between the two bodies:

what ARIA is trying to do is fundamentally different from what UKRI is set to do. They are different types of organisation. Even though there is an overlap, they fundamentally do different things.¹⁸

¹³ National Academies, [How does the UK government invest in R&D?](#), not dated.

¹⁴ Prime Minister's Office, [CBI annual conference 2016: Prime Minister's speech](#), 21 November 2016

¹⁵ National Academies, [How does the UK government invest in R&D?](#), not dated; Department for Business, Innovation and Skills, [Case for the Creation of UK Research And Innovation](#), June 2016, p3

¹⁶ Department for Business, Innovation and Skills, [Case for the Creation of UK Research And Innovation](#), June 2016, p12

¹⁷ David Willetts, [Designing a British DARPA](#) in *Visions of ARPA*, Policy Exchange, 2020

¹⁸ [Q239](#) - Science and Technology Committee Oral evidence: A new UK research funding agency, 17 March 2021

1.3 Industrial Strategy Challenge Fund (ISCF)

The [ISCF](#) is made up of 23 challenges, each of which relates to one of the four themes – also known as “grand challenges” – that underpin the Government’s Industrial Strategy:

- clean growth
- ageing society
- future of mobility
- artificial intelligence and data economy.

The [Industrial Strategy white paper](#) was published in November 2017 with the aim of boosting “productivity by backing businesses to create good jobs and increase the earning power of people throughout the UK with investment in skills, industries and infrastructure”.¹⁹

The ISCF is managed by UKRI and has been supported by £2.6 billion of public money, matched by £3 billion in funding from the private sector.²⁰ Its aim is to bring together the UK’s research base with businesses to address industrial and societal challenges. Giving oral evidence to the Commons Science and Technology Select Committee in October 2020, the former Chief Executive of UKRI, Sir Mark Walport, noted that the ISCF had a “number of ARPA-like features”. He also stressed that UKRI was “created to bring together the [research] ecosystem [and] would be perfectly capable of running ARPA-like programmes”.²¹

More recently, it has been reported by the Financial Times that the Government is moving away from its Industrial Strategy and towards more focused, “ad-hoc” programmes to support economic growth, such as the [Industrial Decarbonisation Strategy](#) announced on 17 March 2021.²²

1.4 Commons Science and Technology Committee inquiry

The Commons Science and Technology Committee opened an inquiry in April 2020 into the ‘new research funding agency’ that had been announced in the Queen’s speeches in 2019. Specifically, the inquiry sought to examine need for the new agency, what it should focus on, how it should operate and where it might fit in the current research and innovation system. After receiving over

¹⁹ [The UK’s Industrial Strategy](#), gov.uk, not dated

²⁰ UKRI, [Industrial Strategy Challenge Fund](#), not dated

²¹ Q71-72, Science and Technology Committee, [Oral evidence: A new UK research funding agency](#), HC 778, 7 October 2020

²² [Business dismay at decision to drop plan for UK industrial strategy](#), *Financial Times*, 8 March 2021

100 written submissions and taking oral evidence from 12 witnesses, the Committee [published its findings](#) in February 2021.

The Committee concluded that, even with the establishment of UKRI three years earlier, there was still a role for:

a body that sits outside and operates in a different way to the established mechanisms, with a different culture and which is able to operate free of some of the structures that are necessary for the dominant research funding institution.²³

It added that while the evidence the Committee had taken indicated a need for an “ARPA-like” body, the Government had yet to articulate clearly “the need for, or intended remit of, the proposed agency”, to the extent that ARPA seemed to be “a brand in search of a product”.²⁴ The Committee called on the Government to define clearly ARPA’s purpose and identify who its client(s) may be – such as a specific Government department.

Further recommendations were made by the Committee about how the new agency should operate. Members noted that its budget was smaller than its US equivalent and suggested that this should limit the Agency to pursuing “one or two central missions” on the grounds that “any more than this would risk spreading its budget too thin, thus undermining its effectiveness”.²⁵ The Committee also considered the time span across which ARPA’s research programme and funding should run. It recommended that the Government:

must accept that these [high risk] projects will take a long time, potentially 10–15 years, to ‘bear fruit’. The Government must meet this ambition with long-term funding for the agency and the programmes it will fund.²⁶

The Committee was clear in its recommendations that, unlike UKRI, ARPA should not be subject to the Haldane Principle and that Ministers should play a role in shaping ARPA’s focus, at least initially.²⁷

While encouraging the development of the Agency as an independent and autonomous body, Members also emphasised that there would still “be a need for appropriate Government oversight of the organisation’s operations—given that £800 million of public money has been allocated to it”. It added that ARPA would require “bespoke Government scrutiny arrangements to operate effectively” though it did not mention a specific role for Parliamentary scrutiny.²⁸

²³ Commons Science and Technology Committee, [A new UK research funding agency](#), Third Report of Session 2019–21, HC 778, para 36

²⁴ Ibid para 45

²⁵ Ibid para 72

²⁶ Ibid para 64

²⁷ Ibid p4

²⁸ Ibid para 81

The Government [formally responded](#) to the Science and Technology Committee's report on 26 April 2021. The Secretary of State for Business, Energy and Industrial Strategy, Kwasi Kwarteng, also appeared in front of the Committee on [17 March 2021](#) to talk about his Department's plans for establishing ARIA. The Prime Minister's former chief adviser, Dominic Cummings, also gave evidence on the matter (see section 2.3).

2 Reaction to the Bill

2.1 Political parties

The Opposition welcomed, in principle, the “creation of an agency for high-risk science”. It raised concerns, however, about the proposed operation and governance of the Agency, stating that it should be “created with and rooted in the science community”.²⁹ In response to the Government’s initial announcement of ARIA on 19 February 2021 (prior to the introduction of the Bill), the shadow business secretary, Ed Miliband, tweeted that the government must “clarify the mandate and mission” of the new agency and address the “wider funding crisis” that researchers face.³⁰

More recently, Mr Miliband questioned the Government’s proposal – as set out in the Bill – to exempt ARIA from “existing Public Contract Regulations”. While the Government stated that this approach will enable ARIA to “procure vital services and equipment with maximum flexibility so that it can carry out ground-breaking research at speeds rivalling a private investment firm”³¹, Mr Miliband argued:

‘maximum flexibility’ sounds like an excuse for no competition. The Government’s procurement has been riddled by conflicts of interests and lack of transparency. Ministers must not use ARIA as cover for further cronyism.³²

Jolyon Maugham QC, the director of the Good Law Project, was reported by The Guardian to have commented on these exemptions set out in the Bill, suggesting that it would allow contract choices to be ‘hidden from view’ and protected from legal challenge.³³

In addition, the shadow business secretary called attention to concerns that, as the Bill currently stands, ARIA will not be subject to the *Freedom of Information Act 2000*, adding that “taxpayers have a right to know how and

²⁹ [Ed Miliband comments on Advanced Research and Invention Agency being exempt from FOI legislation and from Public Contract Regulations](#), Labour.org.uk, 2 March 2021

³⁰ [UK plans to launch \\$1.1 billion ‘high-risk, high-reward’ science research agency](#), *CNBC News*, 19 February 2021

³¹ [Press release: Bill introduced to create high risk, high reward research agency ARIA](#), Department for Business, Energy & Industrial Strategy, 2 March 2021

³² [Ed Miliband comments on Advanced Research and Invention Agency being exempt from FOI legislation and from Public Contract Regulations](#), Labour.org.uk, 2 March 2021

³³ [New UK science body could be used as ‘cover for cronyism’](#), *The Guardian*, 2 March 2021

in whom their money is being invested”.³⁴ The Government justified the proposed FOI exemption on the grounds that it will:

reduce the administrative time required to process FOI requests and protect Britain’s competitive advantage, while allowing the agency to run an extremely lean and agile operating mode - which is essential to its design and ultimate success.³⁵

2.2

Stakeholders

Stakeholders from across the research, science and higher education sectors have broadly welcomed the establishment of the new agency and the Government’s commitment to increase investment in R&D activity in ‘high-risk’ areas. Sir Jeremy Farrar, Director at Wellcome, described the launch of ARIA as:

great news for UK research and demonstrates [the Government's] bold ambitions to support exciting science. It’s important to have a wide range of approaches to funding, and accept that not everything we try will succeed when it comes to game-changing breakthroughs.³⁶

Similarly, the Director of Policy and Public Affairs at the Institute of Physics (IOP) Tony McBride, said that the establishment of ARIA represented “an important step towards achieving the 2.4% R&D investment” and that the IOP welcomed the “freedom and autonomy that have been granted to ARIA, which will enable it to pursue truly disruptive, high-risk, high-reward research and maximise the impact of its funding”.³⁷

Researchers and other stakeholders, however, have also emphasised that there remain unanswered questions about the form, function and operation of the new Agency. The Chair of the Commons Science and Technology Committee, Greg Clark, expressed concerns that ARIA lacked “a clear focus or purpose”, and that there was much that remained unclear about what ARIA is meant to be:

³⁴ [Ed Miliband comments on Advanced Research and Invention Agency being exempt from FOI legislation and from Public Contract Regulations](#), Labour.org.uk, 2 March 2021

³⁵ [Press release: Bill introduced to create high risk, high reward research agency ARIA](#), Department for Business, Energy & Industrial Strategy, 2 March 2021

³⁶ Science Media Centre, [Expert reaction to announcement of UK government plans for the Advanced Research and Invention Agency \(ARIA\)](#), 19 February 2021

³⁷ *ibid*

It's not clear if it is a new institution that will conduct its own research and attract global scientific talent, or if it is another funding agency for researchers in existing organisations.³⁸

Professor James Wilsdon, a science policy researcher at the University of Sheffield, argued that ARIA's budget (representing between "1-2%" of the UK's science budget) meant that it would need to be "selective in what it funds". As yet, however, he noted there was "no information about what specific scientific projects or disciplines might be supported" and whether ARIA would have a single focus, or would undertake multiple projects across a range of areas. He also questioned the accountability of the new Agency, noting that its organisational structure, as proposed in the Bill, vests:

enormous power in the leadership of the new body. These individuals are given carte blanche to decide on the high-risk, high-reward areas of science which should be invested in.³⁹

He contrasted this with existing systems, such as those operated by UKRI which, he said, have "checks and balances" such as "ethical and peer review for grant applications".⁴⁰ Similarly, David Kernohan, Associate Editor of *Wonkhe* (a publication analysing higher education policy) has argued that the ARIA bill:

leaves the field open for government appointees rather than academic peers in selecting and funding projects, and in abruptly terminating unpromising work.⁴¹

He also noted that the power within the Bill to dissolve ARIA, any time after ten years have elapsed following the passing of the Bill, "feels like an utterly arbitrary time limit to write into primary legislation".⁴²

Another science policy researcher, Dr Kieron Flanagan at the University of Manchester, questioned how much the new Agency could – on its own – achieve: "No doubt ARIA will do interesting and exciting things at the project level — it's just not likely to be transformative by itself".⁴³ Sir Paul Nurse, Director of the Francis Crick Institute, went so far as to suggest that ARIA should be part of UKRI, stating:

I would also urge the Government to reconsider the decision to position ARIA separately from UKRI. UKRI is well capable of supporting this exciting new enterprise and having ARIA under the

³⁸ Science Media Centre, [Expert reaction to announcement of UK government plans for the Advanced Research and Invention Agency \(ARIA\)](#), 19 February 2021

³⁹ [Plan to create UK version of DARPA lacks detail, say researchers](#), *Nature*, 26 February 2021

⁴⁰ [Plan to create UK version of DARPA lacks detail, say researchers](#), *Nature*, 26 February 2021

⁴¹ [ARPA, ARIA, defence, and innovation: when research goes to war](#), *Wonkhe*, 16 March 2021

⁴² [The Advanced Research and Invention Agency \(ARIA\) Bill](#), *Wonkhe*, 3 March 2021

⁴³ [Random numbers, UK 'DARPA' and a COVID-ravaged city](#), *Nature*, 10 March 2021

UKRI roof would ensure that the two organisations were closely connected.⁴⁴

Elsewhere, Professor James Wilsdon has questioned the need for ARIA and whether UKRI could undertake its proposed functions:

The legislative case for Aria appears to rest on the assertion that it is difficult or impossible to fund “high-risk, high-reward” research in the existing system. That would include via the 2017 Higher Education and Research Act, which created UKRI and was presented at the time as the most significant reform to the research system in decades [...] I don’t accept this argument, and I have seen little evidence presented for it. Large amounts of existing R&D funding goes to speculative and risky projects and proposals. One could argue that this is one of the main purposes of the public funding system.⁴⁵

The National Audit Office made a similar point in its written evidence to the Commons Science and Technology Committee’s inquiry, stating:

In our view, it is not unique for public money to be spent on programmes where the pay-back may be highly uncertain and where ultimate success may not be known for some years, for example funding for international development projects which may have to operate in difficult and dangerous environments; programmes supporting seed corn investment for start-up businesses; and existing government support for the whole gamut of research and innovation activities.⁴⁶

Sir Paul Nurse has also called attention to the Government’s emphasis on the Agency undertaking ‘high-risk’ research which, he suggested, could be better framed:

it would be better to describe its goal as the support of bold science that is tolerant of risk, rather than talking about high-risk science. Funding risky science with a high likelihood of failure cannot be the best strategy.⁴⁷

Prior to the publication of the Bill, the Russell Group (which represents 24 leading UK universities) emphasised – much like the Science and Technology Select Committee – the need for ARIA to have a clear customer or client to help ensure that its “outputs [...] have real-world applications”.⁴⁸ Emma Salisbury, a researcher at Birkbeck College, University of London, raised similar concerns after the Bill was published about the lack of a clear

⁴⁴ Science Media Centre, [Expert reaction to announcement of UK government plans for the Advanced Research and Invention Agency \(ARIA\)](#), 19 February 2021

⁴⁵ [Aria is an oldie, but there’s no sign it will be a hit](#), *Research Professional News*, 16 March 2021

⁴⁶ Written Evidence Submitted by the National Audit Office ([RFAQ050](#)), Commons Science and Technology Committee, A new UK research funding agency, published 10 September 2020

⁴⁷ *ibid*

⁴⁸ Adam Clarke (Russell Group), [Developing a UK ARPA](#), Foundation for Science and Technology Blog, 20 January 2021

customer for ARIA. Writing on the London School of Economics Social Science blog, she argued that the new Agency:

cannot simply be transplanted from an American Cold War context into today's United Kingdom, and a focus on form over function without a clear customer for its products will not lead to optimal outcomes.⁴⁹

Ruth MacKernan, the former Chief Executive of Innovate UK, stated that she would want ARIA to work “like a venture-capital fund, in which investors expect only a few of the ideas funded to do well, and even fewer to make a significant return”.⁵⁰

Some stakeholders have echoed the shadow business secretary's concerns about the Agency not being subject to FOI. The Campaign for Freedom of Information, for example, stated that the Government's reasoning for not subjecting the new Agency to the FOI Act (namely that it would protect Britain's “competitive advantage”) was “wholly unjustified as the Act already protects commercial secrets [and] research interests”. According to the Campaign's director, Maurice Frankel:

The new agency will spend hundreds of millions of taxpayers' money on high risk projects but the government apparently wants it to be less accountable to the public than parish councils – which are subject to FOI. It's expressly modelled on a US agency, called DARPA, which is subject to the US FOI Act. The FOI Act already exempts information which would harm both commercial and research interests. Allowing ARIA to ignore FOI would reflect a deep-seated government aversion to FOI rather than any need to protect legitimate interests.⁵¹

David Edgerton, Professor of the History of Science and Technology at King's College, London, has gone further and called the basic premise of the new Agency into question. In an article in *The Guardian*, Professor Edgerton argued that ARIA has been framed as a technocratic solution to assumed past failures by the UK to harness its scientific and technological innovations:

The essential problem with the UK's existing science and innovation policies and the ramped-up Arpa version is that both assume that the UK is a technological frontier whose brilliant innovations could be harnessed to determine the world's technological future. That it has not done so yet is blamed on failures of policy and culture, hence this government's focus on administrative innovations such as Arpa and the reform of the civil service [...] Copying administrative models

⁴⁹ Emma Salisbury, [ARIA and Defence – A Missed Opportunity?](#) *London School of Economics Social Science blog*, 8 March 2021

⁵⁰ [Plan to create UK version of DARPA lacks detail, say researchers](#), *Nature*, 26 February 2021

⁵¹ [New research agency must not be exempt from FOI](#), Campaign for Freedom of Information, 19 February 2021

without paying attention to the brute realities of innovation is a poor model for research policy.⁵²

2.3 Parliamentary Select Committees

In a follow up to its “A new UK research funding agency” inquiry, the Science and Technology Select Committee held an oral evidence session on 17 March 2021 with the Secretary of State for Business, Energy and Industrial Strategy, Kwasi Kwarteng, and the Prime Minister’s former chief adviser, Dominic Cummings, about the ARIA Bill.

Mr Cummings has been widely identified as the driving force behind establishing a ‘British ARPA’.⁵³ He told the Committee that, when asked by the Prime Minister to work in Downing Street as the PM’s Chief Adviser, he agreed on the grounds that the science budget would be doubled and that the Government would “create some ARPA-like entity”, to which the Prime Minister agreed.⁵⁴

Mr Cummings told MPs that he wanted ARIA to be “decisively different” from other funding agencies and have “extreme freedom” to pursue its goals rather than be subject to “horrific Whitehall bureaucracy”.⁵⁵ He later repeatedly emphasised that ARIA should not be part of UKRI.⁵⁶

Regarding the Bill, Mr Cummings raised concerns about the Agency’s proposed governance structures, stating that in his model he “would not have Ministers anywhere near how it [the Agency] spends money. I think that will be a disaster”:

In my model it would be extremely simple. You would find a director. You would have a maximum of four trustees, so they are real trustees and they have real control. It is not one of these normal Government things with about 20 people on a board and no one is exercising serious responsibility for it. You would cut it loose from the rest of the system. So, no, I am not confident about how it will work out.⁵⁷

He added that decisions about what ARIA should focus on should be left to the institution and that the Agency should be given time for “problem

⁵² [Cummings has left behind a No 10 deluded that Britain could be the next Silicon Valley](#), *The Guardian*, 18 November 2020

⁵³ [How Dominic Cummings’ obsession with one 1960s American think tank reveals his plans for Britain](#), *Prospect*, 4 February 2021

⁵⁴ [Q170](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

⁵⁵ [Q168, Q173, Q178](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

⁵⁶ [Q190](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

⁵⁷ [Q178](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

finding”.⁵⁸ He expected that “quite a large percentage” of what ARIA does “should fail” and, if that was not the case, then it was a sign that the Agency “was not taking enough risks”.⁵⁹

The Secretary of State for Business, Kwasi Kwarteng, later stated that the Agency’s mission and priorities should be decided by “the people we hire” but that BEIS would set the “tramlines” for the Agency based on the existing “grand challenges”:

It will be up to the head of ARIA to decide whether he or she thinks the organisation should adopt what the innovation strategy suggests, or adapt it, or reject it. They will have independence, but I think there is a role for Government to stress or outline tramlines, as I call them, as to where we think the UK has comparative advantage and what areas we want to see dynamic innovation in.⁶⁰

Similarly, the Science Minister, Amanda Solloway, has previously stated that ARIA will be able to “empower exceptional scientists to decide which research to back”.⁶¹

2.4 Second Reading

The [Second Reading](#) of the Advanced Research and Invention Agency Bill 2019-21 took place on 23 March 2021. A [Money Resolution](#) was passed, along with a [Programme Motion](#) committing the Bill to a Public Bill Committee to be concluded by Tuesday 27 April 2021. A [carry-over motion](#), enabling the Bill to be resumed in the next Parliamentary session if it is not concluded in the 2019-21 session, was also tabled and agreed.

Government position

The Secretary of State for Business, Energy and Industrial Strategy, Kwasi Kwarteng, opened the debate and set out both the purpose of ARIA and what the Bill seeks to do:

The new agency will be characterised by a sole focus on funding high-risk, high-reward research. It will have strategic and cultural autonomy. It will invest in the judgment of able people, and it will also enjoy flexibility and a wide degree of operational freedom [...]

⁵⁸ [Q180](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

⁵⁹ [Q199](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

⁶⁰ [Q283](#) - Commons Science and Technology Committee, Oral evidence: A new UK research funding agency, 17 March 2021

⁶¹ Letter from Amanda Solloway MP, Minister for Science, Research & Innovation, Department for Business, Energy & Industrial Strategy, [Advanced Research and Invention Agency \(ARIA\) Bill](#), to Rt Greg Clark MP, Chair, Science and Technology Select Committee, 2 March 2021

The creation of ARIA is part of a concerted action by this Government to cement the UK's position as a science superpower. With £800 million committed to ARIA by 2024-25, the new agency will contribute extremely effectively to our R&D ecosystem. As set out in our policy statement published only last week, we have to give ARIA significant powers and freedoms and a mandate to be bold. To deliver that, we have introduced the ARIA Bill.⁶²

The Secretary of State particularly called attention to the provisions in the Bill that allow ARIA to embark on “high risk” projects while being afforded the “freedom to fail”:

The Bill recognises that funding transformational long-term science requires patience and a high risk appetite. The Bill explicitly states that ARIA may give weight to the potential of significant benefits when funding research that carries a high risk of failure. This freedom to fail is fundamental to ARIA's model, and the provision will empower its leaders to make ambitious research and funding decisions [...] The agency will be focused exclusively, as I have said, on high-risk research. It requires patience and a laser-like focus as necessary conditions for success.⁶³

Opposition views

There was broad support across the opposition parties for the Bill. The Shadow Secretary of State for Business, Energy and Industrial Strategy, Ed Miliband, confirmed that Labour supported the Bill and “recognise[d] the case for an independent agency that operates outside the established research funding mechanisms”.⁶⁴ He emphasised, however, that the Bill required “improvement” across three broad areas; “first, about the mandate for ARIA; secondly, about its position in the wider R&D system; and thirdly, about accountability”.⁶⁵

The Shadow SNP Spokesperson (Business, Energy and Industrial Strategy), Stephen Flynn, similarly stated that, while the Bill was something his party could “welcome”, the SNP had “concerns [...] and reservations that need to be addressed in a positive manner”.⁶⁶ Mr Flynn described the Bill as “incredibly vague on details”, notably in relation to the “mission” of ARIA and the process by which its leadership team will be appointed. He also questioned whether ARIA risked becoming “another London-centric project” and asked what connections ARIA would have to Scotland:

A total of £800 million will be flowing towards this project. How much of that is coming to Scotland? Will it be Barnettised? Will there be consequential from it? Is this going to be a UK-wide project? If so,

⁶² [HC Deb, 23 March 2021, c819](#)

⁶³ [HC Deb, 23 March 2021, c819-20](#)

⁶⁴ [HC Deb, 23 March 2021, c823](#)

⁶⁵ [HC Deb, 23 March 2021, c824](#)

⁶⁶ [HC Deb, 23 March 2021, c829](#)

why? Why are we not investing in Scotland? Are we trying to undermine the Scottish Parliament once again? We have seen it with the United Kingdom Internal Market Act, the levelling-up fund and the shared prosperity fund; are we now seeing it with ARIA, too?⁶⁷

The Liberal Democrat Spokesperson (Business, Energy and Industrial Strategy), Sarah Olney, stated that the “Liberal Democrats wholeheartedly welcome any announcement of new public funding for science and technology” but raised questions about what would qualify a person to sit on the ARIA board, the process by which the Secretary of State will make board appointments and whether there was a risk that existing R&D programmes would be cut in order to fund ARIA.⁶⁸

Key themes

Mandate and mission of ARIA

Both Labour and the SNP expressed concerns about what they saw as the absence of a clear set of priorities or “mission” for ARIA – such as a focus on “the net zero challenge”. Several Members also expressed unease about the lack of an identified client/ customer for ARIA and pointed to the importance of the relationship between DARPA (Defense Advanced Research Projects Agency) and the Department of Defense in the US.⁶⁹ Carol Monaghan (SNP and a member of the Commons Science and Technology Select Committee) described Members as “being asked to support a Bill to set up a body to fund high-risk research”, but without knowing “what we will be researching or why”.⁷⁰

Mr Miliband proposed that the “Government should set a clear mandate and framework for ARIA” and gave the example of “Moonshot R&D—the Japanese agency established in 2019 to fund challenging R&D—[which] has seven specific moonshot goals set by the Japanese Government”.⁷¹ The risk, Mr Miliband added, was that unless ARIA focused on “a single or a small number of missions”, its impact would be diluted.⁷² Stephen Flynn (SNP) similarly identified a danger that, without a mandate, ARIA would become “a jack of all trades, but a master of none”.⁷³ The Chair of the Commons Science and Technology Select Committee, Greg Clark (Con), agreed that the “question of what the agency’s focus will be is a legitimate one”, noting that it is “easy to dissipate £800 million in so many projects that we do not get the transformation that is in prospect”.⁷⁴

⁶⁷ [HC Deb, 23 March 2021, c831](#)

⁶⁸ [HC Deb, 23 March 2021, c842-3](#)

⁶⁹ Eg Daniel Zeichner (Lab) HC Deb, 23 March 2021, c834, Owen Thompson (SNP) c854, Antony Higginbotham (Con) c873

⁷⁰ [HC Deb, 23 March 2021, c846](#)

⁷¹ [HC Deb, 23 March 2021, c824](#)

⁷² *ibid*

⁷³ [HC Deb, 23 March 2021, c829](#)

⁷⁴ [HC Deb, 23 March 2021, c828](#)

Some Conservative Members pushed back against such criticisms. Anthony Browne (Con) maintained that “mission statements and value for money assessments” would “clip ARIA’s wings at birth”⁷⁵, while the former Science Minister, Chris Skidmore (Con), argued that calls to adopt a “mission-oriented approach” misunderstood “the purpose of creating an organisation that will prioritise disruptive innovation”:

There are plenty of other opportunities for moonshots elsewhere within the R and D ecosystem. ARIA’s sole purpose will be to look at how we can create paradigm shifts in technologies or, indeed, in technologies that do not even exist at the moment.⁷⁶

When closing the debate, the Science Minister, Amanda Solloway, emphasised that that responsibility for ARIA’s programme and mission rested with ARIA:

ARIA’s programme will be motivated by a single clear ambition set by the programme manager. However, those decisions will be made by ARIA, and ARIA’s leaders will be responsible for strategic oversight of their programme portfolio. They will be able to speak to researchers, other funders and Government Departments to help to inform their judgment. There are UK funding programmes for which Ministers set the strategic direction, and ARIA has been set up specifically without those constraints.⁷⁷

Funding

Members from across the House raised questions about how ARIA would interact with, and fit into, the existing UK R&D funding system. The Shadow Business Secretary, Ed Miliband, emphasised that it was important the new Agency did “not duplicate the work of existing funding streams” and questioned how it would distinguish itself from Innovate UK (see section 1.2):

Innovate UK, part of UKRI, is supposed to be a funding stream to turn ideas into commercially successful products. I do not know from reading the Government’s statement of intent what Innovate UK would fund that ARIA would not and what ARIA would fund that Innovate UK would not.⁷⁸

Andy Carter (Con) stated that the ARIA “should be designed in a way that complements the wider system of funding streams that already exist” and asked the Secretary of State to explain how this would be achieved⁷⁹, while Owen Thompson (SNP) similarly called for more clarity regarding ARIA’s “relationship with existing R&D structures”.⁸⁰

⁷⁵ [HC Deb, 23 March 2021, c876](#)

⁷⁶ [HC Deb, 23 March 2021, c855](#)

⁷⁷ [HC Deb, 23 March 2021, c889](#)

⁷⁸ [HC Deb, 23 March 2021, c825](#)

⁷⁹ [HC Deb, 23 March 2021, c881](#)

⁸⁰ [HC Deb, 23 March 2021, c854](#)

Many of the questions about ARIA's relationship to the UK's existing R&D landscape also focused on the source of funding for the new Agency. Several Members asked whether ARIA was receiving "additional funding" or whether, as Owen Thompson (SNP) put it, the funding represented a "subtraction from other important funds".⁸¹ Paul Blomfield (Lab), for example, asserted that the funding for the new Agency was "unclear", noting that "some £50 million is set aside in 2021-22, but future funding remains unallocated, and there is no long-term investment model".⁸² Carol Monaghan (SNP) maintained that it was important to be:

sceptical about whether this agency will really attract new funding, or whether this will simply involve the re-profiling of existing funds.⁸³

Sarah Olney (Lib Dem) called on the Government to be clear "about whether this high-risk investment is new money or whether it is being taken away from other established and lower risk programmes elsewhere". She added that, if it is the latter, ARIA would "put successful current research at risk".⁸⁴ Two SNP Members also questioned whether the £800 million earmarked for ARIA would be "Barnettised" – for more information on the Barnett Formula see the Commons Library paper on [The Barnett Formula](#), January 2020.

Appointment of ARIA leadership

Several Members requested more information about the recruitment process for ARIA's CEO and Board, as well as what would qualify (and disqualify) a person for the roles. Both the Shadow Secretary of State and Sarah Olney (Lib Dem) noted that the Bill was, in Mr Miliband's words, "very vague on what attributes or skills the Secretary of State is looking for" in the Agency's leadership.⁸⁵ Mr Miliband added that, while he understood why recruitment would take place outside the normal civil service procedures, such roles could not "just be decided on the whim of the Secretary of State":

There does need to be an answer on who else from the scientific and research community will have a say on the decision and how this person is going to be chosen, given that, in the Government's own words, they will have "a significant effect on the technological and strategic capabilities of the UK over the course of generations."⁸⁶

The Shadow SNP Spokesperson (Business, Energy and Industrial Strategy), Stephen Flynn, stated that there was a "need to have clarity" about how the recruitment process will work.⁸⁷

⁸¹ [HC Deb, 23 March 2021, c852](#)

⁸² [HC Deb, 23 March 2021, c849](#)

⁸³ [HC Deb, 23 March 2021, c846](#)

⁸⁴ [HC Deb, 23 March 2021, c843](#)

⁸⁵ [HC Deb, 23 March 2021, c826](#)

⁸⁶ *ibid*

⁸⁷ [HC Deb, 23 March 2021, c830](#)

Freedom of information and public contract regulations

As the Bill currently stands, ARIA will not be subject to the [Freedom of Information Act 2000](#). The Bill also exempts ARIA from the obligations on a contracting authority in public contract regulations, on the grounds that it will “allow ARIA to procure R&D services and equipment relating to its research goals in a similar way to a private sector organisation”.⁸⁸ Stephen Flynn (SNP) questioned the rationale behind the exemptions, stating “I cannot get my head around this notion that we can throw away freedom of information and public contract processes in order to achieve something”.⁸⁹

The Shadow Secretary of State explained that Labour “strongly disagree with the Government” on the matter, adding that he could not see a “justification for ARIA’s blanket exemption from FOI”.⁹⁰ He went on to question the reasoning given by the Government for its exemption - namely that it is “necessary for agility” - noting that DARPA in the US is “subject to the US version of the Freedom of Information Act [and] had 47 of these requests last year, so this is hardly an obstacle to getting on with the day job”.⁹¹ According to Owen Thompson (SNP), “such a volume of FOI requests could not conceivably be seen as a block to ARIA’s success”.⁹²

Chi Onwurah (Labour) expressed concerns that the exemptions were driven by ideological rather than practical reasons:

We are concerned that this Government are driven more by an ideological disdain for scrutiny than by a desire to further UK science. The Campaign for Freedom of Information shares our concerns, fearing that without public accountability, ARIA will lack the weighty public interest needed to support its mission.⁹³

In her response to these criticisms, the Science Minister stressed that “Departments and public authorities that work with ARIA will of course be subject to FOI requests” and that the exemption relating to public contract regulations “would empower ARIA’s talented programme managers and directors” and would be “balanced by the requirement for ARIA to audit its procurement activities.”⁹⁴

⁸⁸ [HC Deb, 23 March 2021, c821](#)

⁸⁹ *ibid*

⁹⁰ [HC Deb, 23 March 2021, c826](#)

⁹¹ *ibid*

⁹² [HC Deb, 23 March 2021, c853](#)

⁹³ [HC Deb, 23 March 2021, c887](#)

⁹⁴ [HC Deb, 23 March 2021, c890](#)

2.5

Committee stage

Overview

There were six sittings of the House of Commons Public Bill Committee on the Advanced Research and Invention Agency Bill, running from 14 to 22 April 2021. The Committee took oral evidence from academics, universities, national academies, science and innovation bodies, and other stakeholders in the first two sittings (on 14 April 2021) and published three pieces of written evidence.

Of the 25 amendments moved, none were successful; 16 were negatived on division, 1 was negatived without division and 8 were withdrawn after debate. Five new clauses were moved, of which 2 were negatived without division and 3 were withdrawn. No Government amendments were tabled. Debate on several clauses was brief and no amendments were moved in relation to many sections of the Bill.

Opposition view

The Shadow Minister for Science, Chi Onwurah, reiterated the Opposition's support for the Bill, stating that it welcomed the "debate and the interest and proposed investment in advanced research and innovation through this agency", and that Labour recognised the "importance of giving science and engineering in this country the opportunity to enable us to build back better and create a fairer and more progressive world".⁹⁵ She added, however, that the Opposition had "concerns about the Bill" which it intended "to go through in some detail, amendment by amendment".⁹⁶

The amendments moved focused on 5 broad areas:

- the relationship of the Agency to UKRI;
- the appointment, composition and governance of ARIA's board and leadership team;
- the details to be included in ARIA's annual report;
- ARIA's function and mission;
- ARIA's exemption from the *Freedom of Information Act 2000* and public contract regulations.

Amendments were also moved by both the SNP and Labour that aimed to scrutinise ARIA's engagement with, and benefit to, the nations and regions of the UK.

⁹⁵ House of Commons, [Advanced Research and Invention Agency Bill \(Third sitting\)](#), 20 April 2021, c97

⁹⁶ *ibid*

ARIA's Relationship to UKRI

The Opposition moved an amendment (5) to **Schedule 1** of the Bill which would require ARIA and UKRI to prepare a “memorandum of understanding” (MOU), setting out how they will collaborate and avoid overlap. Dawn Butler (Lab) argued that the amendment was necessary since the “two organisations will be working on the same themes, though doing things slightly differently, and they need to communicate”. She noted that there was nothing currently in the Bill that “says that UKRI and ARIA have to work together or at least know what each other is doing”.⁹⁷

The Science Minister, Amanda Solloway, agreed that it was important for ARIA and UKRI to cooperate but stressed that the “need for ARIA and UKRI to agree and annually review an MOU [would create] an administrative burden” and that ARIA’s governance arrangements should not be “over-engineer[ed]”. The Minister noted that a framework document, agreed by BEIS and ARIA’s leadership, would be forthcoming in which “the broad principles according to which ARIA must interact with other public R&D funders”, including UKRI, would be set out.⁹⁸ The amendment was negated on division (Ayes 5, Noes 9), while a related amendment (6), which would make the CEO of UKRI a non-executive member of ARIA, was negated without division.

Appointments to ARIA's Board

Several amendments were moved by the Opposition and the SNP that addressed appointments to ARIA’s board and leadership team.

Equality and diversity

Kirsty Blackman (SNP) moved amendment 28 to **Schedule 1**, requiring the Secretary of State to appoint women to at least 50% of non-executive ARIA board member positions. Pointing to “an incredibly hard glass ceiling, particularly in science, technology, engineering, and mathematics”, Ms Blackman questioned why, when the Government had “said to FTSE companies that they need to have a percentage of women on those boards”, they had not put a similar requirement into the ARIA Bill.⁹⁹

In response, the Minister stressed that she was committed to removing barriers and dismantling any inequalities in the R&D system that “limit the ambitions, inclusion and participation of people from any background” but that there were also “inadvertent dangers of placing legislative constraints on the recruitment and appointment of ARIA’s members”.¹⁰⁰ Ms Solloway emphasised that the public sector equality duty would apply to appointments made to ARIA by the Secretary of State and thus maintained that there was no

⁹⁷ House of Commons, [Advanced Research and Invention Agency Bill \(Third sitting\)](#), 20 April 2021, c90-91

⁹⁸ House of Commons, [Advanced Research and Invention Agency Bill \(Third sitting\)](#), 20 April 2021, c92

⁹⁹ House of Commons, [Advanced Research and Invention Agency Bill \(Third sitting\)](#), 20 April 2021, c95-6

¹⁰⁰ House of Commons, [Advanced Research and Invention Agency Bill \(Third sitting\)](#), 20 April 2021, c101

need to make any specific provision in the Bill regarding gender equality and appointments.¹⁰¹ The amendment was negated on division (Ayes 6, Noes 9).

Parliamentary scrutiny of appointments

Two further SNP amendments (31 & 33) to **Schedule 1** sought to heighten Parliamentary scrutiny and oversight of ARIA by requiring the Commons and Lords to approve the name of the proposed Chair of ARIA, and its Chief Executive. Both amendments were moved but negated on division (Ayes 6, Noes 9 in each case). An amendment (10) moved by the Opposition requiring the Commons Science and Technology Committee to scrutinise, and consent to, the appointment of ARIA's CEO was similarly defeated. Ms Solloway emphasised that an expert panel would be responsible for sifting and interviewing candidates:

It will feature the Government's chief scientific adviser Sir Patrick Vallance and Jo Shanmugalingam, who is director general for science, innovation and growth at the Department for Business, Energy and Industrial Strategy, [and] two highly esteemed panellists from the international R&D community, whose names will be announced in due course. The final appointments will be made by the Secretary of State, who will continue to have responsibility for appointing non-executives, including future chairs.¹⁰²

Secretary of State's powers

The Bill provides powers in **Schedule 1** for the Secretary of State to refuse consent to the appointment of an executive member of ARIA where it is considered "necessary or expedient in the interests of national security" and also to remove an executive member from office on the same grounds. The Opposition moved two amendments (11 & 12) to Schedule 1 seeking to broaden the powers of the Secretary of State to allow them to refuse consent to, or remove, an executive member, on the basis of their unfitness or inability to carry out the functions of the office. The Shadow Minister for Science, Chi Onwurah (Lab), questioned why national security grounds were "the only grounds on which somebody might not be fit or suitable to serve on the board of ARIA?". She noted that there was no statutory requirement in the Bill:

for members of ARIA to possess scientific expertise or experience, whether individually or collectively. There is no floor—there is no minimum requirement—for their expertise

and compared this to Schedule 9 to the *Higher Education and Research Act 2017* which, she stated, said that the "Secretary of State must consider the collective relevant experience of the UKRI board when making appointments".¹⁰³

¹⁰¹ *ibid* c102

¹⁰² *ibid* c111

¹⁰³ House of Commons, [Advanced Research and Invention Agency Bill \(Fourth sitting\)](#), 20 April 2021 c125

In response to amendment 11, the Minister emphasised that “the freedom for the Chair to hire the executive leadership team is a key feature of ARIA’s independence from Government” and that Parliament should “trust their [the Chair’s] judgment to hire an exemplary set of executive members”.¹⁰⁴ Ms Solloway similarly disagreed that the Secretary of State should have broader powers to remove an executive member, stating that the terms of employment for executive members’ contract were:

expected to include standard provisions that would allow the chair to remove an executive member from office if that person is deemed unfit or unable to carry out the functions of the office.¹⁰⁵

The amendments were withdrawn.

ARIA’s annual report

Three amendments were moved to **Schedule 1** – one by the Opposition (14) and two by the SNP (29 & 30) – that stipulated matters to be included in ARIA’s annual report.

Amendment 14 would require ARIA’s annual report to contain details of the geographical distribution of activities funded by ARIA. Amendment 29 required the same report to contain information about the gender balance of ARIA’s board members and senior staff, as well as financial information on the gender pay gap, while amendment 30 stated that the report must include data on the distribution of its funding to each region of the UK.

The Shadow Science Minister, Chi Onwurah (Lab), said that amendment 14 would help to ensure that the benefits of ARIA were spread across the UK while also enabling the Government to measure ARIA’s impact on reducing regional inequalities. The Minister stated that she agreed with the objective behind the amendment and suggested that a planned “future framework document”, setting out the details of ARIA’s operation, would be the “appropriate place for stipulations on the content of ARIA’s annual report”. Ms Solloway added that it was “extremely likely that ARIA will be required to provide in that report the type of geographical information sought in the amendments”.¹⁰⁶

On this basis, Ms Onwurah withdrew the amendment.

In response to amendment 29, the Minister again drew attention to ARIA’s obligations under the public sector equality duty and the *Equality Act 2010*. She also noted that, if the Agency had over 250 employees, there would be a requirement to publish its gender pay gap information.¹⁰⁷

¹⁰⁴ *ibid*

¹⁰⁵ *ibid* c126

¹⁰⁶ House of Commons, [Advanced Research and Invention Agency Bill \(Fourth sitting\)](#), 20 April 2021 c137

¹⁰⁷ House of Commons, [Advanced Research and Invention Agency Bill \(Fourth sitting\)](#), 20 April 2021 c139

Amendments 29 and 30 were both negated on division (Ayes 6, Noes 8).

ARIA's function and mission

Both the Opposition and SNP moved amendments (15 & 35 respectively) to **Clause 2** of the Bill, stipulating that ARIA's "core" or "primary" mission should be to undertake activities to support the achievement of net zero carbon emissions. The Shadow Science Minister emphasised that while the Opposition supported the establishment of ARIA, it firmly believed that the Agency's success depended upon it being given "a well-defined mission, which the Government must play a significant role in setting" or risk becoming "directionless". Kirsty Blackman (SNP) echoed this point, stating that, on reading through the Bill she "realised not just that ARIA does not have a mission, but that it does not have a direction".¹⁰⁸ Ms Onwurah added that the mission "should be net zero, which is the greatest existential challenge facing our country and the world right now".¹⁰⁹

The Minister disagreed with both the need for a specific mission, and that the mission should be net zero, stating:

Achieving net zero remains one of this Government's top priorities [...] we should continue to successfully mobilise the structures we have in place to respond to the Government's priorities, including through the industrial strategy challenge fund's eight clean growth challenges. [...] As we heard in evidence from Nesta and UKRI last week, ARIA is about conducting research in a different way, through new funding mechanisms and giving autonomy to experts. It is not about research in any one field. I agree that is the right approach.¹¹⁰

Amendments 15 and 35 were both negated on division (Ayes 6, Noes 8).

Freedom of Information Act 2000 and public contract regulations

The Opposition moved amendment 21 to **Schedule 3** to remove ARIA's exemption from the Public Contracts Regulations 2015. The Shadow Science Minister questioned why "an agency of this importance" was exempt from procurement rules, adding that "the benefit of exempting ARIA's procurement of goods and services is not clear".¹¹¹ In response to the amendment, the Minister stressed that ARIA was expected to commission and contract others to conduct research which, Ms Solloway stated, was "a fundamentally different way of funding R&D from traditional grant-making, where procurement rules do not apply":

¹⁰⁸ House of Commons, [Advanced Research and Invention Agency Bill \(Fourth sitting\)](#), 20 April 2021 c150

¹⁰⁹ House of Commons, [Advanced Research and Invention Agency Bill \(Fourth sitting\)](#), 20 April 2021 c143

¹¹⁰ House of Commons, [Advanced Research and Invention Agency Bill \(Fourth sitting\)](#), 20 April 2021 c151

¹¹¹ House of Commons, [Advanced Research and Invention Agency Bill \(Fifth sitting\)](#), 22 April 2021 c177-178

For ARIA, the public procurement rules could prevent a critical investment being made at speed or at all. We will therefore provide that exemption so that ARIA may procure services, equipment and works relating to its research goals at speed, in a similar way to a private sector organisation.¹¹²

Amendment 21 was negated on division (Ayes 6, Noes 8).

As discussed in section 2.2 and 3.3 of this briefing, ARIA is not subject to the *Freedom of Information Act 2000*. Amendment 22 to **Schedule 3** of the Bill was moved by the Opposition to reverse this position. Ms Onwurah emphasised that the Opposition did not want to “bureaucratise ARIA” but that its amendment was one of several it had tabled which aimed to provide “greater oversight of ARIA and greater accountability, in order to increase public confidence”.¹¹³ The Shadow Science Minister went on to estimate how many FOI requests ARIA might receive:

ARIA will be spending between 1% and 2% of the funding that UKRI is spending. If UKRI receives about 300 requests per year, we might calculate, say, that if freedom of information requests were related to the amount of public money being spent—a reasonable approximation—ARIA might receive between three and six freedom of information requests per year. I ask the Committee: would six freedom of information requests per year be a bureaucratic burden on ARIA, as the small and agile organisation we want it to be?¹¹⁴

The Minister maintained that the Government was “committed to good governance and transparency, and [...] that the Bill in its current form embeds that within ARIA”. She went on to highlight other mechanisms outlined in the Bill that would “[guarantee] accountability and transparency in the most appropriate way”:

To reiterate: the Bill requires ARIA to submit an annual report and statement of accounts, which will be laid before Parliament; ARIA will be audited by the National Audit Office and subject to value-for-money assessments; ARIA will interact with Select Committees in the usual way; and we will draw up a framework document detailing ARIA’s relationship with BEIS and further reporting requirements, such as details of what will be published in the annual report. Together, these provisions are rigorous and proportionate and will ensure that the research community, MPs, peers and taxpayers are informed of ARIA’s activities and where it spends its money.

[...]

To be clear, other bodies subject to the Freedom of Information Act, such as universities and Government Departments, including BEIS,

¹¹² House of Commons, [Advanced Research and Invention Agency Bill \(Fifth sitting\)](#), 22 April 2021 c180

¹¹³ House of Commons, [Advanced Research and Invention Agency Bill \(Sixth sitting\)](#), 22 April 2021, c185

¹¹⁴ *Ibid* c186

will still process requests regarding their activities with ARIA in the usual way. I hope that makes it clear that this is not about reducing transparency; it is about making ARIA streamlined.¹¹⁵

Amendment 22 was negated on division (Ayes 5, Noes 9).

2.6 Report Stage and Third Reading

Overview

The Report Stage and Third Reading of the Bill took place on 7 June 2021. Many of the Report Stage amendments were similar to those tabled at Committee stage. They focused on:

- defining ARIA's mission in relation to a specific goal, such as the transition to net zero carbon emissions (Amendments 1, 12 and New Clauses 2 and 3);
- heightening Parliamentary scrutiny of ARIA, including the appointment of its executive and non-executive members (Amendments 3, 5, 9, 10, 11);
- providing extra detail on what should be included in ARIA's annual report (Amendment 13);
- making ARIA subject to the Freedom of Information Act 2000 and the Public Contract Regulations 2015 (Amendments 7, 8 and 14).

Three amendments were moved to a Division. Each was defeated and the Bill was reported without amendment. The Bill was read for a third time on the same day and passed without Division. The Bill had its First Reading in the Lords on 8 June 2021. At the time of writing, a date had yet to be set for its Second Reading.

Overseas Development Aid (ODA)

The former International Development Secretary, Andrew Mitchell MP, tabled New Clause 4 to the Bill in response to Government cuts to Overseas Development Aid (ODA), announced at the November 2020 Spending Review.¹¹⁶ For further information about the reduction in ODA spend, see Commons Library briefing on [Reducing the UK's aid spend in 2021](#) (June 2021).

The Member's explanatory statement stated that New Clause 4 intended to:

reaffirm the duty in the International Development (Official Development Assistance Target) Act 2015 for UK official development assistance (ODA) to amount to 0.7% of gross national income each

¹¹⁵ House of Commons, [Advanced Research and Invention Agency Bill \(Sixth sitting\)](#), 22 April 2021, c190-191

¹¹⁶ ODA is aid intended to promote the economic development and welfare of developing countries.

year. It would require ARIA to make up any shortfall in that proportion from January 2022.¹¹⁷

New Clause 4 was [not selected](#) by the Speaker.

Report Stage

ARIA's mission

Amendment 1, tabled by the SNP, sought to establish ARIA's mission as supporting “the development of technologies and research that support the UK's transition to net zero carbon emissions or reduce the harmful effects of climate change”.

During the debate, Stephen Flynn (SNP), emphasised the continued absence of a “mission” for ARIA, despite what he described as “much to-ing and fro-ing on this topic”.¹¹⁸ He stated that it was “extremely regrettable” that the Government “still refuse[d] to make the climate emergency a core purpose of ARIA to ensure that meeting our net zero targets is the aim of this agency”¹¹⁹ and described it as a “missed opportunity”.¹²⁰

Several MPs, including Layla Moran (Lib Dem) and Daniel Zeichner (Lab), spoke in support of the amendment, with Kate Osborne (Lab) adding that Opposition Members should not “apologise for proposing that we focus on the biggest single issue facing us and our future generations”.¹²¹

In response, the Science Minister, Amanda Solloway, explained that the Government would not be giving ARIA “a primary research topic” and that the new Agency should instead:

make its own distinct contribution to be effective. That means being an organisation led by brilliant people with strategic autonomy—not directed by Ministers.¹²²

Mr Flynn pressed amendment 1 to a vote and it was negatived on division (Ayes 263, Noes 364).

Amendment 12, moved by the Opposition, similarly focused on giving ARIA a distinct mission to undertake “activities which support the achievement of the target established in section 1 of the Climate Change Act 2008” for 10 years following the passing of the Act. After this period, the amendment stipulated

¹¹⁷ House of Commons, [Advanced Research and Invention Agency Bill \(Amendment Paper\)](#), Report Stage, 7 June 2021

¹¹⁸ [HC Deb, 7 June 2021, c711](#)

¹¹⁹ [HC Deb, 7 June 2021, c711](#)

¹²⁰ [HC Deb, 7 June 2021, c747](#)

¹²¹ [HC Deb, 7 June 2021, c730](#)

¹²² [HC Deb, 7 June 2021, c744](#)

that the Secretary of State would establish a mission (or missions) by statutory instrument every 5 years.

In her opening statement, the Shadow Science Minister, Chi Onwurah, reiterated the Opposition's support for the new Agency:

We recognise the need for new mechanisms to support high-risk, high-reward research in our science sector, and as such ARIA is a step in the right direction. ARIA can transform our scientific landscape and we can build an institution that furthers our societal aims for decades to come.¹²³

Ms Onwurah stressed, however, that the Opposition had “concerns” about the Bill; specifically the “lack of direction, strategy and accountability in the Government's current proposals”.¹²⁴ She described amendment 12 as an:

...opportunity for the Government to establish a mission-led funding agency that can benefit us all, but with no mission and the whole realm of science to choose from, the risk is that ARIA will be directionless, provide no societal return for taxpayer investment or be prey to vanity projects.¹²⁵

The Science Minister rejected the approach proposed in the amendment, stating that the “continued chopping and changing of ARIA's mission set out in amendment 12 would hamper ARIA's ability to commit to long-term programmes”.¹²⁶

Amendment 12 was negated on division (Ayes 263, Noes 364).

Freedom of Information Act 2000 and the Public Contract Regulations 2015

Amendment 14 sought to make ARIA subject to the Freedom of Information Act 2000 and the Public Contract Regulations 2015 (SI 2015/102). Moving the amendment, the Shadow Science Minister re-emphasised the Opposition's view that ARIA's current “blanket exemption from the Freedom of Information Act and the public contracts regulations cannot be justified”. She asked the Minister to explain “what is the appropriate oversight for procurement of research if she is intending to exempt ARIA from existing procurement regulations”.¹²⁷

In her response, the Science Minister made two “key points” to clarify “why the exemption is so important”:

¹²³ [HC Deb, 7 June 2021, c718](#)

¹²⁴ [HC Deb, 7 June 2021, c718](#)

¹²⁵ [HC Deb, 7 June 2021, c720](#)

¹²⁶ [HC Deb, 7 June 2021, c744](#)

¹²⁷ [HC Deb, 7 June 2021, c721](#)

First, ARIA is expected to commission and contract others to conduct research in pursuit of its ambitious goals. Often, ARIA will procure research services. That commissioning and contracting is a fundamentally different way of funding R&D to traditional grant making, and procurement rules do not apply. Secondly, this way of funding research is core to DARPA's approach—the successful US model from which we learned when designing ARIA. As we heard in Committee, DARPA benefits from what is described as “other transaction authority”, which offers flexibility outside standard US Government contracting standards. By taking that innovative new funding approach that is so fundamental to its objectives, ARIA will benefit from similar flexibilities.¹²⁸

Amendment 14 was negated on division (Ayes 263, Noes 364).

Third Reading

Following the divisions, the House immediately moved to the Third Reading stage of the Bill. The Business Secretary, Kwasi Kwarteng, described the Bill as providing ARIA with the:

broad functions and powers to take an innovative approach to funding high-risk R&D so that each programme manager can provide effective funding to their talented research team. Critically, the Bill allows a balance between oversight of ARIA's activities and the independence and autonomy that the evidence tells us is so important for its success.

[...]

I believe that [it] will indeed significantly improve the UK's research and development offer in the long term.¹²⁹

In response, the Shadow Business Secretary, Ed Miliband, put on the record the Opposition's support for the Bill and the establishment of ARIA. He then identified three areas where he believed “improvement” to the Bill was both “necessary and possible”, namely in relation to giving the Agency:

- a clearer sense of mission;
- greater transparency and accountability;

as well as ensuring:

- each nation and region of the UK benefits from the creation of ARIA.¹³⁰

¹²⁸ [HC Deb, 7 June 2021, c745](#)

¹²⁹ [HC Deb, 7 June 2021, c762](#)

¹³⁰ [HC Deb, 7 June 2021, c764](#)

The Liberal Democrat spokesperson for Business, Energy and Industrial Strategy, Sarah Olney, similarly emphasised her party's support for the Bill, adding that it "absolutely want[s] ARIA to succeed". She called on the Government, however, to put the "need to tackle climate change" in the Bill and questioned the "reluctance to allow too much scrutiny", noting that "at its best, scrutiny can be constructive and improving, and that can only be of benefit to the agency being set up by this legislation".¹³¹

The Bill was read for a third time and passed to the House of Lords without Division.

¹³¹ [HC Deb, 7 June 2021, c770](#)

3

Overview of the Bill

The Advanced Research and Invention Agency (ARIA) Bill had its first reading in the House of Commons on 2 March 2021 (Bill 264). The Bill is divided into 15 Clauses and has 3 Schedules. As outlined in Section 1 of the briefing, its purpose is to establish a new research funding agency that can conduct, commission and support ‘blue-skies research’; namely research that does not always have an obvious and immediate ‘real world’ application but that has the potential to be ground-breaking. The main clauses are as follows:

- **Clause 1** establishes ARIA as a “body corporate”.
- **Clause 2** describes ARIA’s functions as conducting and commissioning scientific research, sharing findings, and exploiting scientific knowledge (and/or supporting others to undertake these functions).
- **Clause 3** allows ARIA to undertake “ambitious” research projects whilst also having a high tolerance to project failure.
- **Clause 4** covers ARIA’s funding and enables the Secretary of State to make grants to ARIA, with **Clause 7** permitting the transfer of staff and property, rights and liabilities to ARIA.
- **Clause 5** sets out that ARIA must comply with any national security directions given by the Secretary of State, while **Clause 6** stipulates when ARIA must provide information requested by the Secretary of State.
- **Clause 8** allows for the dissolution of ARIA after ten years have elapsed since the passing of the Bill.
- **Clause 10** allows the Secretary of State to modify other legislation in line with any provision in the ARIA Act.

Territorial extent and application

The Bill applies to the whole of the United Kingdom. Supporting scientific research and development sit within the legislative competence of the devolved nations, though specific reservations do exist. Clauses 1-4, 6-8, 10-12 and Schedules 1 and 2 all require legislative consent motions with respect to Scotland, Northern Ireland and Wales. According to the [Explanatory Notes](#), those applications have been made.

3.1

Establishment, form and functions of ARIA

ARIA's functions

Clause 2(1) sets out ARIA's functions in broad terms as conducting and commissioning scientific research, sharing findings, and exploiting scientific knowledge. ARIA may also support others to undertake these specific functions. The Explanatory Notes state that this could involve literature reviews and collaborating with academic and industry teams; creating prototypes or introducing products to market; and convening conferences and publishing academic papers. The Bill thus provides scope for ARIA's research to have commercial value, in addition to any national value.¹³² In a Written Statement, the Business Secretary, Kwasi Kwarteng, stated that ARIA would “not be restricted in whether it funds pure science, applied science, or technological development – in fact, often it will do aspects of each within a single programme”.¹³³

Clause 2(2)(b) also allows ARIA to provide financial support to other entities (eg loans, grants, taking an equity stake in ‘spin-out’ companies), subject to conditions laid out in **Clause 2(3)** and **Clause 2(4)**. **Clauses 2(5)** and **(6)** clarify that ARIA's activities are not confined to the UK but that, when exercising its functions, the Agency “must have regard to the desirability of doing so for the benefit of the United Kingdom”.

Membership of ARIA

Paragraphs 2 to 7 of **Schedule 1** set out the membership and governance of ARIA. The Agency will consist of at least nine people: “executive members” (including the Chief Executive Officer, the Chief Financial Officer and between 2 to 5 other members) and “non-executive members”. **Paragraph 2(3)(a-c)** explains that the latter will consist of a Chair appointed by the Secretary of State, the Government Chief Scientific Adviser and any other members appointed by the Secretary of State. Under **Paragraph 2(4)**, the Secretary of State must exercise the power in sub-paragraph (3)(c) so “as to secure that the majority of members are non-executive members”.

While the Chair is responsible for appointing the 2 to 5 additional ‘executive members’, the appointments require the consent of the Secretary of State, as outlined in **Paragraph 3(3)**. **Paragraph 3(4)** clarifies that the Secretary of State may refuse consent only when “considered necessary or expedient in the interests of national security”.

The Secretary of State is also responsible for appointing the first Chief Executive of the Agency (**Paragraph 3(1)**) who, under **Paragraph 4(1)** can

¹³² [The Advanced Research and Invention Agency \(ARIA\) Bill](#), Wonkhe, 3 March 2021

¹³³ [Written Statement HCWS787](#) [on Advanced Research and Invention Agency], 22 February 2021

serve for a fixed term of no more than five years. Under **Paragraph 4(2)**, however, a Chief Executive can be appointed to the position twice.

The tenure of non-executive members is not specified on the face of the bill; instead **Paragraph 6(1)** states that “a person holds and vacates office as a non-executive member of ARIA in accordance with that person’s terms of appointment”. **Paragraph 6(3)** also specifies the occasions when the Secretary of State has authority to remove a non-executive member, including “unfitness or inability” to carry out the functions of office. There is nothing on the face of the Bill about any particular expertise that either an executive, or non-executive, member must have, though **Paragraph 7(1)** stipulates that “ARIA must pay its non-executive members”.

In a Written Statement to the House, however, the Secretary of State for Business, Kwasi Kwarteng, emphasised that ARIA would be run by:

exceptional scientists who have the expertise to identify the most exciting and ground-breaking research to invest in. Government will invest in these exceptional individuals, empowering them to use their expertise to identify what research to back rather than providing a research focus for the organisation, and giving them the freedom to start and stop projects quickly and redirect funding efficiently.¹³⁴

Paragraph 8 covers staffing arrangements and gives ARIA the ability to appoint employees while **Paragraph 9** allows the Agency to establish committees. **Paragraph 10(1)** gives ARIA the power to determine its own procedures; there are only two procedures that the Bill stipulates. First, that the “quorum for a meeting of ARIA is half the number of its members” (**Paragraph 10(2)**) and second, under **Paragraph 11**, that the Secretary of State may make “provision about the procedures to be adopted for dealing with conflicts of interests of members of ARIA or members of a committee” by regulations. The power is subject to the negative resolution procedure on the grounds that it is “appropriate as the subject matter of any regulations would relate to detailed matters of the internal management of ARIA”.¹³⁵

The press release accompanying the Bill states that the Agency has been purposefully designed to enable its work to take place “at greater speed, with flexibility and minimised bureaucracy” than other funding agencies.¹³⁶ It adds that, in designing the Agency in this way, the Government is aiming to uphold the “winning formula” employed by its [Vaccine Taskforce](#). The Business Secretary has also described the need for “minimal bureaucracy” surrounding ARIA, similarly arguing that the:

¹³⁴ [Written Statement HCWS787](#) [on Advanced Research and Invention Agency], 22 February 2021

¹³⁵ [Advanced Research And Invention Agency Bill](#), Memorandum from the Department for Business, Energy and Industrial Strategy to the Delegated Powers and Regulatory Reform Committee, March 2021

¹³⁶ [Press release: Bill introduced to create high risk, high reward research agency ARIA](#), Department for Business, Energy & Industrial Strategy, 2 March 2021

recent approach to COVID rapid response funds and the Vaccine Taskforce has led to a cultural shift around funding and decision-making, towards a more lean and agile system, and ARIA will continue this trend.¹³⁷

Accountability

Paragraph 14(1)(a-b) of Schedule 1 requires ARIA to maintain financial accounts and “proper records” in relation to those accounts, as well as “prepare a statement of accounts in respect of each financial year”. The agency will also be subject to scrutiny by the National Audit Office:

Paragraphs 14(3) and (4) require that copies of ARIA’s accounts must be shared with the Secretary of State and the Comptroller and Auditor General (CAG), with the CAG responsible for examining, certifying and reporting on each statement of accounts.

Under **Paragraph 15(1)**, ARIA must also prepare a report on the exercise of its functions during each financial year, which it then must share with the Secretary of State. The Secretary of State is required to lay the report before Parliament (**Paragraph 15(4)**). **Schedule 3** (Consequential Amendments) also indicates that the Agency will be subject to the [Public Records Act 1958](#).

The Government has described its approach towards the accountability of the Agency as “balanced”, stating that while:

the Bill will prioritise the formation of an agile research agency by stripping back red tape, it will also ensure this is balanced with necessary accountability and oversight.¹³⁸

High risk, high reward, and a tolerance of failure

Clause 3 allows ARIA to undertake “ambitious” research projects – including some that would not have been funded by other research funding bodies – whilst also having a high tolerance to project failure. The [Explanatory Notes](#) clarify that Clause 3 also allows ARIA to adopt a long-term approach to research:

ambitious research goals may require multi-year programmes of work where pay-back may be highly uncertain and success may not be realised for some years.

In addition to the research projects themselves carrying a high risk of failure, the Explanatory Notes acknowledge that the forms of support permitted under the Bill (like taking an equity stake in a start-up company) may also carry a high risk.

¹³⁷ [Written Statement HCWS787](#) [on Advanced Research and Invention Agency], 22 February 2021

¹³⁸ [Press release: Bill introduced to create high risk, high reward research agency ARIA](#), Department for Business, Energy & Industrial Strategy, 2 March 2021

The press release accompanying the Bill states that this high degree of flexibility is necessary to:

enable the agency to develop technologies at speed that could create profound positive change for the UK and the rest of the world, recognising that failure is an essential part of scientific discovery.¹³⁹

Dissolving ARIA

Clause 8(1) states that the Secretary of State “may by regulations make provision for the dissolution of ARIA”, with **Clause 8(2)** stipulating that such regulations cannot be made until 10 years has elapsed since the passing of the Bill. **Clause 8(4)** sets out what the regulations may include, such as transferring property rights and liabilities. **Clause 8(4)(f)** also allows regulations to make provision about “the payment by the Secretary of State or ARIA of compensation to any person who suffers loss or damage as a result of the dissolution”.

The regulations are subject to the draft affirmative procedure. The Delegated Powers Memorandum states that BEIS considers the draft affirmative procedure to be “an appropriate counterbalance to the power being delegated”.¹⁴⁰

3.2

Funding and transfer schemes

Clause 4(1) enables the Secretary of State to make grants to ARIA, while **Clauses 4(2)** and **(3)** allows conditions to be added to grants, such as the repayment of financial support. As noted in section 1.1 of the briefing, the Government has committed to invest £800 million in the Agency to the end of this Parliament (2024-25), though it is unclear if this money is ring fenced, or if it comes from the ‘science budget’ more generally. The [2020 Spending Review](#) indicated that at least some of the money that has been given to UKRI is earmarked for ARIA:

SR20 also announces a number of specific [research] investments [...] £450 million in 2021-22 to support government priorities, drive the development of innovative ways to build new science capability and support the whole research and innovation ecosystem. SR20 allocates £350 million of this investment to UK Research and Innovation. This includes the first £50 million towards an £800 million investment by 2024-25 in high-risk, high-payoff research.¹⁴¹

¹³⁹ [Press release: Bill introduced to create high risk, high reward research agency ARIA](#), Department for Business, Energy & Industrial Strategy, 2 March 2021

¹⁴⁰ [Advanced Research and Invention Agency Bill](#), Memorandum from the Department for Business, Energy and Industrial Strategy to the Delegated Powers and Regulatory Reform Committee, March 2021

¹⁴¹ HM Treasury, [Policy paper: Spending Review 2020](#), Updated 15 December 2020

Beyond a repeated emphasis on the Agency being “independent”, ARIA’s relationship to existing UK R&D structures, such as UKRI, remains unclear.¹⁴²

Clause 7 refers to **Schedule 2** of the Bill, which contains provisions to transfer staff, property, rights and liabilities to ARIA from the Secretary of State or UKRI. **Paragraph 1(4)** of Schedule 2 clarifies that both the Secretary of State and UK Research and Innovation (UKRI) are permitted to make such property and staff transfers.

3.3

National security and information requests

Clause 5 sets out that ARIA must comply with any national security directions given by the Secretary of State. The [Explanatory Notes](#) state that the directions may be general or specific to a particular case, such as “stopping certain activities or partnerships in the interests of national security”. This is a delegated power exercised by directions given by the Secretary of State and is restricted to matters of national security; no Parliamentary procedure is specified. The [Delegated Powers Memorandum](#) justifies this approach on the grounds that:

Where the need for a direction under this Clause arises, the Secretary of State will need to respond urgently and privately. In those circumstances the Department considers that no parliamentary procedure would be appropriate here.¹⁴³

Clause 6 stipulates when ARIA must provide information requested by the Secretary of State in order to perform his/her functions in relation to ARIA. **Clause 6(3)** explains that disclosures made under this section would not breach “any obligation of confidence owed by ARIA” or “any other restriction on the disclosure of information (however imposed)”. **Clause 6(4)**, however, stipulates that the section “does not require a disclosure of information if the disclosure would contravene the data protection legislation”, while **Clause 6(5)** states that the section “does not require the disclosure of anything in respect of which a claim to legal professional privilege [...] could be maintained in legal proceedings”.

Freedom of Information

Clause 1(1) establishes ARIA and stipulates that it is a “body corporate”. **Schedule 1** provides further details about the status of the Agency.

¹⁴² HM Government, [Global Britain in a competitive age. The Integrated Review of Security, Defence, Development and Foreign Policy](#), March 2021, CP 403, p36

¹⁴³ [Advanced Research And Invention Agency Bill](#), Memorandum from the Department for Business, Energy and Industrial Strategy to the Delegated Powers and Regulatory Reform Committee, March 2021

Paragraph 1 explains that ARIA is to be regarded as wholly separate from the Crown and that ARIA's property is not Crown property.

Under the [Freedom of Information Act 2000](#), there is a general right of access to information held by public authorities and publicly owned companies (namely bodies owned by the Crown and/or the wider public sector – as set out and defined in Clauses 3 and 6 of the 2000 Act). ARIA's status as a body that does not take the form of a public authority means that it is not subject to the 2000 Act. **Clause 10** of the Bill, however, allows regulations to be made by the Secretary of State to modify legislation. According to the [Explanatory Notes](#) accompanying the Bill, this power could be used to apply the provisions of the 2000 Act to ARIA.

More generally, under clause 10, if primary legislation or retained direct EU legislation is amended or repealed, then the regulations will be subject to the draft affirmative procedure. Otherwise the negative resolution procedure will be used. The Delegated Powers Memorandum notes that, since ARIA will not follow other statutory bodies:

there is a greater risk than usual of consequential amendments that are desirable coming to light. The power, so far as it is exercisable in relation to regulations under Clause 8, is needed so that (a) Clause 1 (and other provisions of the Bill) and (b) references to ARIA inserted by the Bill or regulations under Clause 10, can be repealed if ARIA is dissolved. This will allow the statute book to be tidied up.¹⁴⁴

¹⁴⁴ [Advanced Research And Invention Agency Bill](#), Memorandum from the Department for Business, Energy and Industrial Strategy to the Delegated Powers and Regulatory Reform Committee, March 2021

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