



Advanced Research and Invention Agency Bill HL Bill 24 of 2021–22

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The Conservative Party first stated its intention to create a new research funding agency in its 2019 manifesto. In the October 2019 Queen's Speech, the Government confirmed plans to develop proposals for the agency.

The bill has several purposes. Firstly, it would establish the Advanced Research and Invention Agency (ARIA). Secondly, it sets out ARIA's functions. These are focused on conducting "ambitious" scientific research "with a tolerance to failure". Thirdly, the bill would enable the secretary of state to make grants to ARIA and to provide it with funding.

The bill was introduced in the House of Commons on 2 March 2021. It was carried over into the new parliamentary session and completed its House of Commons stages on 7 June 2021.

The creation of ARIA was generally welcomed in the House of Commons. However, several concerns were raised by Members of Parliament. This included questions over the agency's mandate, composition, and accountability, particularly its exemption from the Freedom of Information Act 2000. Amendments addressing these concerns were tabled by the Opposition and Scottish National Party during the bill's committee and report stages. However, none of these amendments were agreed to. The bill was not amended in the House of Commons.

The bill has been welcomed by organisations and stakeholders within research, science and technology, such as the Royal Academy for Engineering and Wellcome. However, several organisations, including the Institute for Physics, have expressed concern that ARIA does not have a clear mandate. In addition, concerns have also been raised regarding the long-term funding of the agency.

The bill was introduced in the House of Lords on 8 June 2021. This briefing provides a background to the bill, details its provisions and sets out some immediate reaction to the bill.

Library Briefing

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I. What is the background to the bill?

I.I Plans to create a new research agency

The Government first set out its commitment to create an independent research agency in the 2019 Conservative Party manifesto. It stated that new public research and development spending would contribute to "a new agency for high-risk, high-payoff research, at arm's length from government".¹

In the background briefing notes for the October and December 2019 Queen's Speeches, the Government provided further detail on the research agency. The Government stated that it would be "backing a new approach to funding high-risk, high-payoff research in emerging fields of research and technology".² This new approach would be "broadly modelled on the US Advanced Research Projects Agency (ARPA)".³

ARPA was created as part of the US Department of Defense by the then US President Dwight D Eisenhower in February 1958, in response to the USSR launching Sputnik I—the world's first artificial satellite. It was created with a commitment that the US would "be the initiator and not the victim of strategic technological surprises".⁴ In 1972, ARPA was renamed the Defense Advanced Research Projects Agency (DARPA).

DARPA remains in operation today. It has a single mission, to "make pivotal investments in breakthrough technologies for national security".⁵ In 2021, it has a budget of US\$3.5 billion.⁶

According to the bill's explanatory notes, the Advanced Research and Invention Agency is expected to "emulate key features of the ARPA model".⁷ This includes:

• organising ambitious research goals around the long-term programmes of work, which could vary from basic research through to the creation of prototypes and commercialised technologies. This would be led by programme managers, who are tasked with "facilitat[ing] cohesion between individual

¹ Conservative Party, <u>Conservative and Unionist Party Manifesto</u>, 22 November 2019, p 40.

² Prime Minister's Office, <u>Queen's Speech December 2019: Background Briefing Notes</u>, 19 December 2019, p 107.

³ Prime Minister's Office, <u>Queen's Speech October 2019: Background Briefing Notes</u>, 14 October 2019, p 93.

⁴ Defense Advanced Research Projects Agency, '<u>About DARPA</u>', accessed 11 June 2021. ⁵ ibid.

⁶ Defense Advanced Research Projects Agency, '<u>Budget</u>', accessed 11 June 2021.

⁷ Explanatory Notes, p 2.

research projects in pursuit of transformational breakthroughs";

- "significant autonomy" for programme managers who are able to "take advantage of innovative and flexible approaches to programme funding"; and
- a "tolerance to failure" in pursuit of transformational breakthroughs "embedded in its culture". The explanatory notes state that only a small fraction of ARIA's goals will be achieved, and that ARIA is supposed to "provide value from its failures".⁸

In the 2020 budget, HM Treasury announced that the Government would be investing at least £800 million until the end of the current parliament (2024–25) in a "new blue-skies funding agency" which had been "modelled on the extraordinary 'ARPA' in the US".⁹

In July 2020, the Government published its Research and Development Roadmap for the UK. The roadmap provided further information on the Government's plans for the funding agency. It stated that it would "back breakthrough technologies and basic research by experimenting with new funding models across long-term time horizons". Additionally, the roadmap stated that although £800 million represented a "small proportion" of the overall public spending on research and development funding, it will be "a critical part of the UK's investment portfolio alongside other funding bodies".¹⁰

The Government has committed to investing £14.9 billion in research and development in 2021/22, with an objective of increasing economy-wide investment in research and development to 2.4 percent of GDP by 2027.¹¹

I.2 House of Commons Science and Technology Committee inquiry

Following the 2020 budget and an announcement that funding would be allocated towards a new research agency, the House of Commons Science and Technology Committee launched an inquiry examining: the Government's proposals to establish a new UK research funding agency; the role of the new agency; and how it should function. As part of the inquiry, the committee took oral evidence from several witnesses, including a representative from DARPA.

In February 2021, the committee published its findings. It concluded that "there can be a role for a body that sits outside and operates in a different

⁸ Explanatory Notes, p 2.

⁹ HM Treasury, '<u>Budget 2020</u>', updated 12 March 2020.

¹⁰ Department for Business, Energy and Industrial Strategy, <u>UK Research and Development</u> <u>Roadmap</u>, updated 21 January 2021, p 17.

¹¹ HM Treasury, '<u>Budget 2020</u>', updated 12 March 2020.

way to the established UK research funding mechanisms".¹² However, it stated that the Government had "not clearly articulated the need for, or intended remit of, the proposed agency" and that this would be "made much more straightforward" if the agency served a clear "client", such as a government department. The committee also recommended to the Government that if it wanted a UK ARPA to pursue research programmes "with the potential to have transformational effects on society", it must:

- fund research considered "too risky" by the existing research and innovation system and "be prepared for some programmes to fail";
- accept that research projects will take a long time, potentially 10–15 years, to "bear fruit" and will consequently have to guarantee long-term funding for the agency and its programmes; and
- ensure that the agency focuses on no more than two central missions, given the size of the agency's budget.¹³

The committee also addressed concerns witnesses raised that a UK ARPA may not be able to "operate effectively with sufficient freedom" if it was situated inside UK Research and Innovation's (UKRI) framework. In its report, the committee stated that it agreed with these concerns and for the agency to be effective, it "must be able to pursue novel and contentious activities without case-by-case ministerial approval".¹⁴ Therefore, it concluded that if this was not possible within the UKRI framework, it "find[s] there is merit" in the Government establishing a UK ARPA as a separate entity. However, the committee called on the Government to clarify whether it intended to establish an agency as a separate body or within UKRI, whether the process would require primary or secondary legislation to do so and the timescale for the process.¹⁵

On 26 April 2021, the Government published its response to the committee. In its response, the Government stated that it wished to give ARIA an "open mission", which was to "benefit society and the economy through transformative technological change".¹⁶ Addressing the committee's recommendation that ARIA should serve a specific client, the Government said that it wanted to "leave the door open" for the agency to "forge links" with multiple government department customers. The Government also

¹² House of Commons Science and Technology Committee, <u>A New UK Research Funding</u> <u>Agency</u>, 12 February 2021, HC 778 of session 2019–21, p 3.

¹³ ibid, pp 3–4.

¹⁴ ibid, p **4**.

¹⁵ ibid.

¹⁶ House of Commons Science and Technology Committee, <u>A New UK Research</u> <u>Funding Agency: Government Response to the Committee's Third Report of Session</u> <u>2019–21</u>, 26 April 2021, HC 1363 of session 2019–21, p 2.

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noted that it had "clearly stated" the intention to establish ARIA as a separate organisation to UKRI.¹⁷

1.3 UK Research and Innovation

Launched in 2018, UKRI is the national funding agency currently tasked with investing in science and research in the UK. It is an executive non-departmental public body, sponsored by the Department for Business, Energy and Industrial Strategy, and brings together Innovate UK, Research England and seven research councils.¹⁸

UKRI has a budget of £7.9 billion for the 2021/22 financial year.¹⁹ The agency currently funds research in two distinct ways, collectively referred to as the dual support system:

- firstly, through grant funding, which is allocated by the seven research councils to their respective disciplines; and
- secondly, Research England provides block grants to higher education institutions.²⁰

Its funding decisions are made independently from government, in accordance with the 'Haldane Principle'. According to section 103 of the Higher Education and Research Act 2017, the principle is defined 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).²¹

2. What would the bill do?

In the Queen's Speech 2021, the Government confirmed it would be bringing forward the Advanced Research and Invention Agency Bill to create the Advanced Research and Invention Agency (referred to in the bill as ARIA). ARIA would be tasked with funding "high-risk, high reward" research

¹⁷ House of Commons Science and Technology Committee, <u>A New UK Research</u> <u>Funding Agency: Government Response to the Committee's Third Report of Session</u> <u>2019–21</u>, 26 April 2021, HC 1363 of session 2019–21, p 2.

¹⁸ UK Research and Innovation, '<u>Who we are</u>', accessed 11 June 2021. The seven research councils are the: Arts and Humanities Research Council; Biotechnology and Biological Sciences Research Council; Economic and Social Research Council; Engineering and Physical Sciences Research Council; Medical Research Council; Natural Environment Research Council; and the Science and Technology Facilities Council.

¹⁹ UK Research and Innovation, '<u>What we do</u>', accessed 11 June 2021.

²⁰ Royal Society, <u>How Does the UK Government Invest in Research and Development?</u> accessed 11 June 2021.

²¹ Section 103 of the Higher Education and Research Act 2017.

and development in the United Kingdom.²² The bill seeks to do several things. It:

- establishes ARIA as a statutory corporation;
- sets out ARIA's functions. These are focused on conducting "ambitious" scientific research "with a tolerance to failure", and developing, exploiting and sharing scientific knowledge; and
- enables the secretary of state to make grants to the agency and to provide it with funding.²³

The bill was first introduced in the House of Lords on 8 June 2021.²⁴ It is formed of 15 clauses and 3 schedules. The provisions detailed in the bill would apply to the whole of the United Kingdom.

2.1 Clause by clause

Advanced Research and Invention Agency

Clause I would establish a body corporate called the Advanced Research and Invention Agency. **Schedule I** details the structure and operation of ARIA. This includes:

- how executive and non-executive members are appointed;
- term limits and remuneration; and
- reporting requirements.

Clause 2 sets out ARIA's functions. It states that ARIA may do, or commission or support others to do, any of the following:

- conduct scientific research, including literature research reviews to identify areas which would benefit from further scientific exploration or by carrying out laboratory work itself;
- develop and exploit scientific knowledge to enable it to use scientific research for the purposes of creating prototypes or introducing products to market; or
- collect, share, publish and advance scientific knowledge. This could be achieved by convening conferences or seminars and publishing academic or other papers for closed or public consumption.

²² Prime Minister's Office, <u>Queen's Speech 2021: Background Briefing Notes</u>, 11 May 2021, p 57.

 ²³ UK Parliament, '<u>Have your say on the Advanced Research and Invention Agency Bill</u>',
24 March 2021.

²⁴ ibid.

Clause 3 states that in exercising any of its functions, ARIA may give "particular weight" to the potential for significant benefits to be achieved or facilitated through scientific research, or the development and exploitation of scientific knowledge, "that carries a high risk of failure". According to the bill's explanatory notes, ARIA may set "highly ambitious research goals", which, if achieved, would "bring about transformative scientific and technological advances". Such advances would also "yield significant economic and social benefit". Therefore, the bill would allow ARIA to have a "high tolerance to project failure".²⁵

Clause 4 would provide the secretary of state with a grant funding power. This power would be subject to conditions, such as requiring the repayment of financial support with or without interest.

Clause 5 sets out that ARIA must comply with any directions given by the secretary of state, if the secretary of state considers it "necessary or expedient" to protect interests of national security. According to the bill's explanatory notes, this could take the form of general directions or directions in a particular case, for example, to "stop certain activities or partnerships in the interests of national security".²⁶ The clause also states that a direction may be varied or revoked. The bill's delegated powers memorandum notes that in situations where national security may be at risk and where the need to use directions arises, the secretary of state must do so "urgently and privately".²⁷ For example, where the secretary of state identifies that a hostile party may have sought an association with ARIA. Therefore, the Department for Business, Energy and Industrial Strategy states that it would not be "appropriate" to involve Parliament.

Clause 6 would require ARIA to provide the secretary of state with information, if requested, for the secretary of state to perform their functions in relation to ARIA. Subsection 3 states that a disclosure of information required under this section does not breach:

- any obligation of confidence owed by ARIA; or
- any other restriction on the disclosure of information (however imposed).

The clause also notes that ARIA is not required to disclose information if it contravenes data protection legislation (subsection 4) or in respect of which a claim to legal professional privilege could be maintained in legal proceedings (subsection 5).

²⁵ Explanatory Notes, p 5.

²⁶ ibid.

²⁷ Department for Business, Energy and Industrial Strategy, <u>Advanced Research and Invention</u> Agency Bill: Memorandum from the Department for Business, Energy and Industrial Strategy to the <u>Delegated Powers and Regulatory Reform Committee</u>, 9 June 2021, p 1.

Clause 7 introduces schedule 2, which contains provisions about schemes for the transfer of staff, property, rights and liabilities to the agency. The schedule would give the secretary of state powers to make property and staff transfer schemes to ARIA. Subsection 4 of the clause states that a permitted transferor means either the secretary of state or UKRI.²⁸

Clause 8 would allow the secretary of state to make provisions by regulations for the dissolution of ARIA. However, subsection 2 states that such regulations may not be made before ten years have elapsed since the bill has passed. Prior to making regulations, the secretary of state must consult ARIA and others that the secretary of state considers appropriate. Subsection 4 sets out what the regulations may include, such as:

- providing for the transfer of property, rights or liabilities of ARIA to the secretary of state or another person; and
- making provision about the payment by the secretary of state or ARIA of compensation to any individual who suffers loss or damage as a result of the dissolution.

The regulations would be subject to the draft affirmative procedure.²⁹

Consequential amendments

Clause 9 introduces schedule 3, which makes consequential amendments. Under this schedule, ARIA would be inserted into the following acts:

- Public Records Act 1958, which means that any records produced by ARIA from its creation should be treated as public records (paragraph 1);
- Parliamentary Commissioner Act 1967, which means that ARIA is listed as one of the public bodies that can be investigated by the Parliamentary Commissioner for Administration, a body responsible for investigating the administrative actions of government departments and public bodies (paragraph 2);
- House of Commons Disqualification Act 1975 and the Northern Ireland Assembly Disqualification Act 1975, prohibiting members of ARIA, its staff, committees and sub-committees from becoming members of the House of Commons or Northern Ireland Assembly, and vice versa (paragraphs 3 and 4); and the

²⁸ The Cambridge English Dictionary defines a 'transferor' as 'someone who sells property, shares, etc, to someone else'. Cambridge English Dictionary, '<u>Transferor</u>', accessed 11 June 2021.

²⁹ Department for Business, Energy and Industrial Strategy, <u>Advanced Research and Invention</u> <u>Agency Bill: Memorandum from the Department for Business, Energy and Industrial Strategy to the</u> <u>Delegated Powers and Regulatory Reform Committee</u>, 9 June 2021, p 2.

- 8 House of Lords Library Briefing I Advanced Research and Invention Agency Bill
 - Equality Act 2010, which makes ARIA subject to the provisions of the act (paragraph 10).

Clause 10 would allow the secretary of state to make regulations to modify legislation. This includes a power to amend, repeal or revoke legislation. For example, the explanatory notes state that a provision could be made to apply Freedom of Information Act 2000 provisions to ARIA, as it would not take the form of a public body as defined by the act.³⁰

General provisions

Clause II would make further provisions to make regulations under clause 8 or schedule 1. It sets out the procedure for making such regulations. Regulations under clause 8 (the dissolution of ARIA) or under clause 10 (that amend, repeal or revoke any provision of primary legislation or retained direct principal EU legislation) are subject to the affirmative procedure.

Clauses 12 to 15 make provisions about interpretation, extent and commencement of the bill. These include that the act would apply to England, Scotland, Wales and Northern Ireland.

3. What response has there been to the bill?

The Government first introduced the bill in the House of Commons on 2 March 2021.³¹ Following its introduction, many organisations and stakeholders in research, science and technology have welcomed the bill. Some concerns have been raised about the agency's mandate and whether the Government will fund the agency in the long-term.

3.1 House of Commons bill stages

Second reading

Second reading took place in the House of Commons on 23 March 2021. Speaking on behalf of the Government, the Secretary of State for Business, Energy and Industrial Strategy, Kwasi Kwarteng, said that the Government had introduced the bill to "give ARIA significant powers and freedoms and a mandate to be bold".³² Mr Kwarteng also set out the purpose of ARIA:

The new agency will be characterised by a sole focus on funding highrisk, high-reward research. It will have strategic and cultural autonomy.

³⁰ Explanatory Notes, p 7.

³¹ UK Parliament, '<u>Advanced Research and Invention Agency Bill: Stages</u>', accessed 11 June 2021.

³² <u>HC Hansard, 23 March 2021, col 819</u>.

It will invest in the judgment of able people, and it will also enjoy flexibility and a wide degree of operational freedom.³³

Responding, the Shadow Business, Energy and Industrial Strategy Secretary, Ed Miliband, said that the Labour Party supported the bill and its aims.³⁴ However, Mr Miliband also stated the bill "requires improvement"³⁵ and expressed concern about three areas:

- the mandate for ARIA;
- its position in the wider research and development system; and
- accountability.³⁶

This included concerns over ARIA being exempt from freedom of information requests. Mr Miliband argued that Labour "strongly disagree[d]" with the Government on the bill's exemption from the Freedom of Information Act 2000. He highlighted that DARPA in the US had 47 requests for information last year, contending that it is "hardly an obstacle to getting on with the day job".³⁷

Despite these concerns, Mr Miliband stated Labour would not be opposing the bill's passage but would "seek to improve it" so that it "can strengthen our science base and do what is required to help us meet the massive challenges we face as a society".³⁸

Speaking on behalf of the Scottish National Party (SNP), Stephen Flynn, the party's spokesperson for business, energy and industrial strategy, also said that the bill was something the SNP could "welcome". However, the SNP also had concerns. Describing the bill as "incredibly vague on details", Mr Flynn queried:

- what the wider mission of the bill would be, as he was unsure whether the bill was trying to achieve better outcomes for health, defence or transport;
- who would be leading ARIA;
- transparency around the agency's resources and accountability; and
- its impact in Scotland.³⁹

³³ HC Hansard, 23 March 2021, col 819.

³⁴ ibid, col 823.

³⁵ ibid.

³⁶ ibid, col 824.

³⁷ ibid, col 826.

³⁸ ibid, col 827.

³⁹ ibid, cols 829–31.

Greg Clark, the chair of the House of Commons Science and Technology Committee, also welcomed the legislation. Mr Clark cited his committee's report into the agency, which raised questions that he hoped would be "clarified" by the Government during the bill's progression in Parliament. This included questions on:

- the agency's focus;
- the role of ministers and the chief executive officer (CEO); and
- whether ARIA's budget should go towards "blue-sky research and brand-new thinking, without particular regard to the application" or whether ARIA was looking to turn "already nascent good ideas into practical applications".⁴⁰

Closing the debate, the Parliamentary Under Secretary of State for Business, Energy and Industrial Strategy, Amanda Solloway, sought to address some of the issues raised. Discussing concerns over ARIA's mission, Ms Solloway stated that it would be decided by ARIA's leaders, who would be responsible for "strategic oversight of their programme portfolio". Turning to accountability, the minister said ARIA would be at a "greater distance from central government than we are used to" and that was a "deliberate move". She also noted that there were powers in the bill for the secretary of state to intervene on issues of national security and to introduce additional procedures to measure conflicts of interest.⁴¹ Discussing transparency, Ms Solloway noted that departments and public authorities working with ARIA would be subject to freedom of information requests. In addition, she said there would be other statutory commitments to transparency, including a requirement on ARIA to produce an annual report on its functions, which, along with its accounts, would be laid before Parliament.⁴²

Following the second reading debate, the bill was committed to a House of Commons Public Bill Committee.⁴³ A carry-over motion was also tabled and agreed, allowing the bill to be resumed in the 2021–22 parliamentary session.⁴⁴

Committee stage

There were six sittings of the House of Commons Public Bill Committee, which ran from 14 to 22 April 2021. During committee stage, 25

⁴⁰ HC Hansard, 23 March 2021, col 828.

⁴¹ ibid, cols 889–90. Paragraph 11 of schedule 1 notes that the secretary of state may make provisions by regulations about the procedures to be adopted for dealing with conflicts of interests of members of the agency, its committees or sub-committee.

⁴² ibid, col 890.

⁴³ ibid, col **891**.

⁴⁴ ibid.

amendments tabled by the Labour Party and SNP were moved with none of the amendments successful:

- 16 were defeated following a division;
- I was negatived without division (rejected without a vote); and
- 8 were withdrawn.

A brief summary of the amendments tabled by the Opposition and put to a division can be found below:

- Amendment 2: This amendment sought to amend clause I of the bill to change ARIA's name to the Advanced Research and Engineering Projects Agency. It was defeated by 9 votes to 3.⁴⁵
- **Amendment 5**: This amendment would have required ARIA and UKRI to prepare a memorandum of understanding detailing how they would collaborate and avoid overlap. Amendment 5 was defeated by 9 votes to 5.⁴⁶
- Amendment 10: This amendment would have required the secretary of state to seek and obtain the consent of the House of Commons Science and Technology Committee for the appointment of ARIA's first CEO. The amendment was defeated by 9 votes to 6.⁴⁷
- Amendments 7 and 8: These amendments would have required the secretary of state to have regard to the: collective relevant experience of ARIA's members in the devolved nations when using their power of appointment (amendment 7); and the diversity of ARIA's board when using their powers of appointment (amendment 8). Amendment 7 was defeated by 9 votes to 5, whilst amendment 8 was defeated by 9 votes to 6.⁴⁸
- Amendments 15 and 35: Amendment 15 would have required ARIA to have regard for its core mission, which for the ten years following the passing of the bill would undertake activities to support the achievement of net zero, set out in the Climate Change Act 2008. Its mission would be established by statutory instrument, under the draft affirmative procedure. Similarly, amendment 35 would have set the primary mission for ARIA to support the development of technologies and research supporting the UK's transition to net zero carbon emissions or reduce the harmful effects of climate change. The amendments were defeated by 8 votes to 6.⁴⁹

⁴⁵ <u>HC Hansard, 20 April 2021, col 89</u>.

⁴⁶ ibid, col **94**.

⁴⁷ ibid, col 114.

⁴⁸ HC Hansard, 20 April 2021, cols 121–22.

⁴⁹ ibid, col 152.

- Amendment 16: This amendment would have required ARIA to have regard for the benefit of its activities across the nations and regions of the UK in the exercising of its functions. The amendment was defeated by 8 votes to 6.⁵⁰
- Amendment 20: This amendment sought to insert a new subsection into clause 5, placing a requirement on the secretary of state to prepare and provide an annual report to the Intelligence and Security Committee of Parliament about measures that impact national security. Amendment 20 was defeated by 9 votes to 6.⁵¹
- Amendment 21: This amendment sought to amend schedule 3. This would have removed ARIA's exemption from the Public Contracts Regulations 2015.⁵² The amendment was defeated by 8 votes to 6.⁵³
- Amendment 22: This amendment sought to insert a new subsection into schedule 3 to make ARIA subject to the Freedom of Information Act 2000. Amendment 22 was defeated by 9 votes to 5.⁵⁴

The following amendments were tabled by the Scottish National Party and were put to a division:

- Amendment 28: This amendment sought to insert a new subsection (4) into schedule I, ensuring that the secretary of state appointed at least 50 percent of women as non-executive members of ARIA's board. Amendment 28 was defeated by 9 votes to 6.⁵⁵
- Amendment 31: This amendment would have required both Houses of Parliament, under the affirmative resolution procedure, to approve the name of the proposed chair of ARIA. In addition, it stated that ARIA must not exercise any functions, nor could the secretary of state make any grants to ARIA, until its first chair had been appointed. The amendment was defeated by 9 votes to 6.⁵⁶
- Amendments 29 and 30: These amendments would have inserted new provisions into schedule I to ensure that ARIA's annual report included statistics on the: gender balance of executive and non-executive board members and senior staff; and on the percentage of its funding to each region in the UK.

⁵⁰ HC Hansard, 22 April 2021, col 140.

⁵¹ HC Hansard, 22 April 2021, col 169.

⁵² The Public Contracts Regulations 2015.

⁵³ <u>HC Hansard, 22 April 2021, col 182</u>.

⁵⁴ ibid, col 192.

⁵⁵ <u>HC Hansard, 20 April 2021, col 103</u>.

⁵⁶ ibid, col 114.

Both amendments were defeated by 8 votes to 6.57

Further information on committee stage proceedings in the House of Commons can be found in the House of Commons Library briefing, Advanced Research and Invention Agency Bill 2019–21.⁵⁸

Report stage

Report stage for the bill took place on 7 June 2021.⁵⁹ During report stage, further amendments from the Opposition and the Scottish National Party were debated. Three amendments were moved to division, but were defeated and not added to the bill. These amendments were as follows:

• Amendment I: This amendment sought to amend clause 2 of the bill to set the primary mission for ARIA to support 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. A similar amendment was also introduced by Stephen Flynn during the committee stage of the bill.

Moving amendment I, Stephen Flynn reiterated his argument made at committee that he found it "extremely regrettable" that despite there being a "climate emergency", the Government "still refuse[d]" to make tackling it a "core purpose" of ARIA. He argued that this would ensure that its aim was to meet the UK's net zero target.⁶⁰ Responding, Amanda Solloway rejected setting ARIA a primary mission, stating that ARIA "must make its own distinct contribution to be effective", which means being an organisation "led by brilliant people with strategic autonomy not directed by ministers".⁶¹

The amendment was defeated by 364 votes to 263, a majority of 101. $^{\rm 62}$

• Amendment 12: This amendment, tabled by Labour, would have required ARIA to consider its core mission for ten years following the bill's passing to be supporting the achievement of

⁵⁷ <u>HC Hansard, 20 April 2021, col 140</u>.

⁵⁸ House of Commons Library, <u>Advanced Research and Invention Agency Bill 2019–21</u>, 6 May 2021.

⁵⁹ UK Parliament, '<u>Advanced Research and Invention Agency Bill: Stages</u>', accessed 11 June 2021.

⁶⁰ <u>HC Hansard, 7 June 2021, col 711</u>.

⁶¹ ibid, col 744.

⁶² ibid, cols 748–52.

net zero. The mission would be established by statutory instrument subject to the draft affirmative procedure. A similar amendment was also moved during committee.

Moving amendment 12, Chi Onwurah, the shadow minister for Science, Research and Digital, stated that it sought to support the Government in its commitment to achieve net zero by 2050. She also argued that without a core mission, there was a risk that ARIA will be "directionless, provide no societal return for taxpayer investment or be prey to vanity projects".⁶³ Ms Solloway responded that the "continued chopping and changing" of ARIA's mission would "hamper" its ability to commit to long-term programmes.⁶⁴

Amendment 12 was defeated by 364 votes to 263, a majority of 101.65

• Amendment 14: Amendment 14 was also tabled by the Labour Party and sought to add a new section into clause 6 to make ARIA subject to the Freedom of Information Act 2000 and the Public Contract Regulations 2015. Similar amendments were also tabled during the bill's committee stage.

Also moving the amendment, Chi Onwurah stated that ARIA's "current blanket exemption" from both the act and regulations "cannot be justified".⁶⁶ Ms Onwurah outlined that ARIA would spend approximately £800 million of public money and that without accountability and transparency, the Labour Party believed ARIA would provide the Government with a "side-door to sleaze in science".⁶⁷ Responding, Amanda Solloway reiterated the reasons why the Government felt the exemption was important:

- Firstly, ARIA is expected to commission and contract others to conduct research in pursuit of its goals. The commissioning and contracting is a "fundamentally different way" of funding research and development and procurement rules do not apply.
- Secondly, this way of funding research is core to DARPA's approach, which "offers flexibility" outside US government

⁶³ <u>HC Hansard, 7 June 2021, col 720</u>.

⁶⁴ ibid, col 744.

⁶⁵ ibid, cols 753–77.

⁶⁶ ibid, col 721.

⁶⁷ ibid.

contracting standards. By taking that funding approach, ARIA would "benefit from similar flexibilities".⁶⁸

The amendment was defeated by 364 votes to 263, a majority of 101.69

Following the report stage, the bill was reported without amendment.⁷⁰

Third reading

The third reading of the bill in the House of Commons took place immediately after report stage. The Secretary of State for Business, Energy and Industrial Strategy, Kwasi Kwarteng, said that he believed that the creation of ARIA would "make our outstanding UK research and development system even stronger and more dynamic, more diverse, and it will help us to innovate and level up across the country".⁷¹

Ed Miliband outlined the Labour Party's support for the bill. However, he reiterated three issues with the bill, arguing that Labour "continue to believe that improvement is necessary and possible". The issues were that:

- the bill as drafted does not provide ARIA with a clear mission.
- there is "no justification" for ARIA's exemptions from the Freedom of Information Act 2000 and public contract regulations; and
- each region of the UK benefits from the creation of the agency.⁷²

Similarly, Sarah Olney, the Liberal Democrat spokesperson for Business, Energy and Industrial Strategy, also welcomed the bill but called for tackling climate change to be a "baseline" for ARIA's focus. In addition, Ms Olney spoke about scrutiny of ARIA. She stated that she understood the Government's "reluctance" to allow freedom of information requests, but that scrutiny "can be constructive and improving", which can "only benefit" the agency.⁷³

Further, Stephen Flynn stated that many of the points made at third reading had "certainly covered off many of the points that I would seek to address" and that he had "no desire" to cover many of the arguments he had

⁷² ibid, col 764.

⁶⁸ <u>HC Hansard, 7 June 2021, col 745</u>.

⁶⁹ ibid, cols 758–62.

⁷⁰ ibid, col 762.

⁷¹ ibid, col **763**.

⁷³ ibid, col 770.

previously expressed during the bill's progression in the House of Commons.⁷⁴

The bill was read for the third time and passed to the House of Lords.⁷⁵

3.2 External reaction

Many organisations and stakeholders within research, science and technology have welcomed plans to create ARIA. Sir Jim McDonald, the president of the Royal Academy of Engineering (RAE), said that the RAE was "delighted" to see the Government "deliver on its commitment to a high-risk, high-reward funding agency".⁷⁶ Similarly, Sir Jeremy Farrar, director at Wellcome, stated that the Government's plan to create ARIA was "great news for UK research" and "demonstrates their [the Government's] bold ambitions to support exciting science".⁷⁷

However, although other organisations and stakeholders within research and development also welcomed the plans, they raised concerns over the agency, its remit and funding. Greg Clark, the chair of the House of Commons Science and Technology Committee, stated that:

There remains much that is unclear about what ARIA is meant to be. 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.⁷⁸

Similarly, Tony McBride, the director of Policy and Public Affairs at the Institute of Physics, argued that a clear mission was "essential" to the successful operation of ARIA.⁷⁹ Additionally, Dr Daniel Rathbone, the assistant director at the Campaign for Science and Engineering contended that there must be a "clear purpose" for ARIA. Turning to funding, he said that the agency will need "longevity and continuity of funding to succeed".⁸⁰

⁷⁴ <u>HC Hansard, 7 June 2021, col 767</u>.

⁷⁵ ibid, col **770**.

⁷⁶ Royal Academy of Engineering, '<u>Academy responds to ARIA announcement</u>', 19 February 2021.

⁷⁷ Science Media Centre, '<u>Expert reaction to announcement of UK government plans for</u> the Advanced Research and Invention Agency (ARIA)', 19 February 2021.

⁷⁸ ibid.

⁷⁹ ibid.

⁸⁰ Science Media Centre, '<u>Expert reaction to announcement of UK government plans for</u> <u>the Advanced Research and Invention Agency (ARIA)</u>', 19 February 2021.

4. Read more

- Department for Business, Energy and Industrial Strategy, <u>'Advanced Research and Invention Agency (ARIA): policy</u> <u>statement</u>', 19 March 2021
- Department for Business, Energy and Industrial Strategy, '<u>Bill</u> <u>introduced to create high risk, high reward research agency</u> <u>ARIA</u>', 2 March 2021

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