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By Louisa Brooke-Holland

# AUKUS pillar 2: Advanced capabilities programmes

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## What is AUKUS?

AUKUS is a defence and security partnership between Australia, the United Kingdom and the United States announced in September 2021.

The <u>UK Government described it as a "landmark" agreement</u> which will "help sustain peace and stability in the Indo-Pacific region."<sup>1</sup> The agreement reflects the UK's tilt to the Indo-Pacific, first articulated in the Government's

<sup>1</sup> Prime Minister's Office, <u>Joint leaders statement on AUKUS</u>, 21 September 2021

<u>2021 Integrated Review of defence, foreign and security policy</u> and reaffirmed in the <u>2023 refresh of the review</u>.

A major part of the agreement is to trilaterally collaborate to help Australia acquire their first conventionally armed, nuclear-powered submarine fleet. This is known as pillar 1 of AUKUS.<sup>2</sup>

Pillar 2 focuses on developing a range of advanced capabilities, to share technology and increase interoperability between their armed forces. The three countries say one of the aims of AUKUS is to "foster deeper integration of security and defense-related science, technology, industrial bases, and supply chains".<sup>3</sup>

Within pillar 2 are eight workstreams covering areas such as artificial intelligence, hypersonic missiles and quantum technologies.<sup>4</sup>

The Minister responsible for AUKUS Pillar 2 is James Cartlidge, the Minister for Defence Procurement. In June 2023 he said "good progress is being made" across all eight workstreams.<sup>5</sup> The Permanent Secretary is the most senior official on AUKUS.<sup>6</sup>

This paper focuses on pillar 2. Commons Library paper <u>AUKUS submarine</u> (SSN-A) programme (CBP 9843) discusses the submarine aspects of AUKUS in more detail. Commons Library paper <u>the AUKUS agreement</u> (CBP 9335) examined the initial announcement and regional reaction in October 2021.

<sup>&</sup>lt;sup>2</sup> Ministry of Defence, <u>The AUKUS nuclear powered submarine pathway: a partnership for the</u> <u>future</u>, 14 March 2023, para 2.4

<sup>&</sup>lt;sup>3</sup> Prime Minister's Office (PMO), <u>UK, US and Australia launch new security partnership</u>, 15 September 2021

<sup>&</sup>lt;sup>4</sup> PMO, <u>Joint leaders statement on AUKUS</u>, 21 September 2021; <u>Fact sheet: implementation of the</u> <u>Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>5</sup> PQ188182 [AUKUS], 7 June 2023

<sup>&</sup>lt;sup>6</sup> <u>HL10089 [AUKUS]</u>, 26 September 2023

#### 2

## A closer look at the advanced capabilities

Pillar 2 includes:	The three countries have identified eight capability areas to collaborate on under AUKUS pillar 2.	
Cyber	These were publicised in two tranches of four, the first four in the initial announcement in September 2021, and the second tranche in a joint statement released in April 2022.	
Artificial intelligence		
Quantum tech	Sontomber 2021: other canabilities, artificial intelligence, quantum	
Undersea	<ul> <li>September 2021: cyber capabilities, artificial intelligence, quantum technologies and undersea capabilities.<sup>7</sup></li> </ul>	
Hypersonics	• April 2022: hypersonic and counter-hypersonic capabilities, electronic	
Electronic warfare	warfare capabilities, innovation and information sharing. <sup>8</sup>	
Innovation	Each capability is led by a trilateral working group. A joint steering group overseas the working groups, with a senior officials group providing overall	
Information sharing	direction. <sup>9</sup>	
	There is relatively little information about each workstream so far. The <u>most</u> <u>comprehensive update was given in a joint factsheet</u> published by the three countries in April 2022. The 2023 <u>Defence Command Paper</u> also discusses	

some of the capabilities under development.

The Congressional Research Service has examined developments under each workstream from an American perspective in <u>AUKUS Pillar 2: Background</u> and issues for Congress (PDF), R47599.

Commons Library briefing <u>emerging defence technologies</u> (CBP 9184) examines some of the technologies, including cyber, artificial intelligence and autonomous systems, quantum technology and hypersonic weapons, in the context of their development for the UK armed forces.

<sup>&</sup>lt;sup>7</sup> PMO, <u>Joint Leaders statement on AUKUS</u>, 21 September 2021

<sup>&</sup>lt;sup>8</sup> PMO, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022; <u>HL2459 [AUKUS]</u>, 24 October 2022

<sup>&</sup>lt;sup>9</sup> Altogether there are 17 17 trilateral working groups under AUKUS. As well as the eight for each of the advanced capabilities mentioned, there are 9 working groups for different aspects of pillar 1, the submarine project. PMO, <u>Fact sheet: implementation of the Australia-UK-US partnership</u> (AUKUS), 5 April 2022; <u>HL2459 [AUKUS]</u>, 24 October 2022

#### 2.1 Cyber capabilities

This workstream focuses on strengthening cyber capabilities, including protecting critical communications and operations systems.<sup>10</sup>

### 2.2 Artificial intelligence and autonomy

The Government says this workstream will provide "critical enablers for future force capabilities".<sup>11</sup> Early work is focused on "accelerating adoption, and improving the resilience of, autonomous and AI-enabled systems in contested environments."<sup>12</sup>

The UK hosted the first AUKUS AI and autonomy trial in April 2023.<sup>13</sup> The trial tested a joint deployment of Australian, UK and US AI-enabled assets "in a collaborative swarm to detect and track military targets in a representative environment in real time."<sup>14</sup> The trial was organised by the Defence Science and Technology Laboratory (Dstl). The MOD said that by sharing AI and the underpinning data, the UK, US and Australian militaries can "access the best AI, reduce duplication of effort, and ensure interoperability."<sup>15</sup> Referencing that trial, James Cartlidge, the Minister for Defence Procurement, said the three partners are looking to "rapidly drive these technologies into responsible military use."<sup>16</sup>

A Lords Select Committee, AI in weapons systems, was appointed in February 2023 to consider the use of artificial intelligence in weapon systems.

### Quantum technologies

2.3

The AUKUS Quantum Arrangement (AQuA) will "accelerate investments to deliver generation-after-next quantum capabilities."<sup>17</sup> The initial focus will be on quantum technologies for positioning, navigation, and timing.

<sup>&</sup>lt;sup>10</sup> PMO, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>11</sup> PMO, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>12</sup> As above.

<sup>&</sup>lt;sup>13</sup> MOD, <u>World first as UK hosts inaugural AUKUS AI and autonomy trial</u>, 26 May 2023

<sup>&</sup>lt;sup>14</sup> As above.

<sup>&</sup>lt;sup>15</sup> As above.

<sup>&</sup>lt;sup>16</sup> PQ 200347 [<u>AUKUS</u>], 19 October 2023

<sup>&</sup>lt;sup>17</sup> PMO, Fact sheet: implementation of the Australia-UK-US partnership (AUKUS), 5 April 2022

James Andrew Lewis, director of the strategic technologies program at the Center for Strategic and International Studies, says quantum computing has the potential to solve problems that may be intractable for traditional computers. He says that all three AUKUS countries have strong quantum sectors.<sup>18</sup>

The UK Government has identified quantum technologies as one of its five "priority technologies of tomorrow".<sup>19</sup> It published a national quantum strategy in March 2023 setting out a ten-year commitment to quantum technologies in the UK. This is being led by the new Department for Science, Innovation and Technology. The strategy briefly mentions the benefits of collaborative research and development opportunities "born out of defence pacts such as AUKUS".<sup>20</sup>

The UK has established a collaborative programme between industry, academia and government to "secure UK advantage and opportunities in the globally competitive new quantum era". This is known as the <u>UK National</u> Quantum Technologies Programme.<sup>21</sup>

In 2022, the MOD bought a quantum computer to "develop future data processing capabilities."<sup>22</sup> In a July 2023 command paper, the MOD said it intends to be "amongst the first militaries to see, and harness, [quantum computing's] potential in battlespace."<sup>23</sup>

A 2017 POSTnote explains what quantum technologies are.

#### 2.4 Undersea capabilities

The AUKUS Undersea Robotics Autonomous Systems (AURAS) project focuses on autonomous underwater vehicles. The three countries expect these will be a "significant force multiplier for our maritime forces."<sup>24</sup>

The Royal Navy is separately <u>working with France to develop a maritime</u> <u>mine counter measures (MMCM) capability</u> which involves unmanned systems operating remotely.

The Royal Navy has also bought a new Royal Fleet Auxiliary vessel, RFA Proteus, to help protect undersea cables and infrastructure. For more on this

<sup>&</sup>lt;sup>18</sup> National Defense, <u>Special report: AUKUS Countries Team Up to Develop Key Quantum Capabilities</u>, 17 February 2023

<sup>&</sup>lt;sup>19</sup> Department for Science, Innovation and Technology, <u>National Quantum Strategy</u>, 15 March 2023

<sup>&</sup>lt;sup>20</sup> Department for Science, Innovation and Technology, <u>National Quantum Strategy</u>, 15 March 2023

<sup>&</sup>lt;sup>21</sup> <u>National Quantum Technologies Programme</u>, accessed 5 July 2023

<sup>&</sup>lt;sup>22</sup> MOD, <u>Defence's response to a more contested and volatile world</u>, CP 901, July 2023

<sup>&</sup>lt;sup>23</sup> As above.

<sup>&</sup>lt;sup>24</sup> PMO, Fact sheet: implementation of the Australia-UK-US partnership (AUKUS), 5 April 2022

see Commons Library insight <u>Seabed warfare: Protecting the UK's undersea</u> <u>infrastructure</u>.

2.5

## Hypersonic and counter-hypersonic capabilities

This workstream will focus on accelerating development of advanced hypersonic and counter-hypersonic capabilities.<sup>25</sup>

Hypersonic missiles are missiles that travel within the Earth's atmosphere for sustained periods at speeds greater than five times the speed of sound. They fly at lower altitudes than ballistic missiles, which means they may be harder to track at long distances and may be more difficult to intercept with existing missile defence systems.<sup>26</sup>

China and Russia have reportedly deployed hypersonic missiles that could deliver conventional or nuclear weapons. The US is testing multiple hypersonic technologies.<sup>27</sup>

A <u>POSTnote looks at hypersonic missile technologies</u>, efforts to develop them, potential applications, and the possible challenges they may present for missile defence and global stability.<sup>28</sup>

## 2.6 Electronic warfare capabilities

The Government says that in an increasingly contested electromagnetic spectrum, this workstream will share "understanding of tools, techniques, and technology to enable our forces to operate in contested and degraded environments."<sup>29</sup>

One area of interoperability is the <u>E-7 Wedgetail aircraft</u>. Wedgetail is an airborne early warning and control system, commonly known as AWACs (or AEW&C). Easily recognisable by the large radar mounted on top, they are

<sup>&</sup>lt;sup>25</sup> Prime Minister's Office, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>25</sup> Prime Minister's Office, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>26</sup> POSTnote, <u>Hypersonic missiles</u>, PN 0696, 27 June 2023

 <sup>&</sup>lt;sup>27</sup> National Defense, <u>Special report: AUKUS partners aim to catch China in Hypersonics race</u>, 17 February 2023

<sup>&</sup>lt;sup>28</sup> POSTnote, <u>Hypersonic missiles</u>, PN 0696, 27 June 2023

<sup>&</sup>lt;sup>29</sup> Prime Minister's Office, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

designed to track multiple targets at sea or in the air over a considerable area for long periods of time.

The RAF is expecting the first of three Wedgetail aircraft to be delivered in 2024, with initial operating capability expected three to six months after delivery.<sup>30</sup> Wedgetail replaces the RAF's previous early warning radar aircraft, Sentry, which retired in 2021.<sup>31</sup> The MOD initially intended to buy five aircraft, but this was later reduced to three in the 2021 Defence Command Paper.<sup>32</sup> Commons Library Insight <u>RAF surveillance aircraft: The Wedgetail programme</u> (October 2020) discusses the replacement of the Sentry aircraft with Wedgetail.

Wedgetail is already in service with the <u>Royal Australian Air Force</u>, and the US Air Force have selected the aircraft to replace its AWACs.<sup>33</sup>

#### 2.7 Innovation

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This element will look at ways to integrate commercial technologies faster and to learn from each other's defence innovation enterprises.<sup>34</sup>

#### 2.8 Information sharing

The three countries intend to expand and accelerate sharing of sensitive information.<sup>35</sup>

## Export control regulations

The <u>Congressional Research Service paper on AUKUS</u> discusses whether existing US export control laws and regulations might hamper effective technological and industrial cooperation between AUKUS partners.<sup>36</sup> A

<sup>&</sup>lt;sup>30</sup> PQ 156935 [AWACS: Procurement], 7 March 2023

<sup>&</sup>lt;sup>31</sup> RAF, <u>His Royal Highness the Earl of Wessex marks E-3D Sentry retirement after 30 years</u>, 30 September 2021

<sup>&</sup>lt;sup>32</sup> Ministry of Defence, <u>Defence in a competitive age</u>, CP 411, 22 March 2021

<sup>&</sup>lt;sup>33</sup> USAF Selects Boeing's E-7A Wedgetail as Successor to AWACS, Air and Space Forces magazine, 28 February 2023

<sup>&</sup>lt;sup>34</sup> Prime Minister's Office, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>35</sup> Prime Minister's Office, <u>Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)</u>, 5 April 2022

<sup>&</sup>lt;sup>36</sup> CRS, <u>AUKUS Pillar 2: Background and issues for Congress</u> (PDF), R47599.; National Defense, <u>Will US</u> <u>export regulations derail AUKUS?</u>, 10 March 2023

particular concern is the International Traffic in Arms Regulations (ITAR), a US regulatory regime which restricts the transfer of controlled defence articles and services. The CRS notes that some analysts contend the process of obtaining licences are "overly complex and onerous" which might hinder cooperation.<sup>37</sup>

The Defence Select Committee raised potential ITAR-related restrictions with the Defence Secretary in November 2022. Ben Wallace said there had been a "really significant change" with the recent issue by the US of an open general licence to the UK, Canada and Australia around ITAR. He explained this means "among the four of us, we can buy in from the United States and export out to one of the other countries without the controls that used to be around with ITAR." He added "the United States realised that, ultimately, if we want to work together, collaborate and burden share, ITAR is a barrier that is not helpful."<sup>38</sup>

The <u>open licences referred to by the Defence Secretary</u> were agreed in July 2022 and effective for one year, to 31 July 2023. The State Department has since extended the open licence for a further three years, to 31 July 2026.<sup>39</sup> The MOD has described this as a "pilot".<sup>40</sup> In response to the Committee's report on UK and US relations, the Government said it is lobbying the Biden administration to relax some of its regulatory requirements:

Work is underway with the US Administration and Congress to make some headway in pursuing reforms or exemptions for the UK and Australia, noting AUKUS highlights the need to do things differently between the closest of allies.<sup>41</sup>

A senior US Defense Department official has said the Biden administration plans on consulting with Congress on legislative changes that will allow "increased exemptions to licensing requirements for AUKUS partners and make easier the transfer of both unclassified and classified defence articles and services."<sup>42</sup>

The <u>Atlantic Declaration</u>, agreed by the UK and the US in June 2023, includes a commitment to ensuring "flexible and coordinated export controls."<sup>43</sup>

- <sup>39</sup> Federal Register, <u>International Traffic in Arms Regulations: Reissuance and Update of Open</u> <u>General Licenses 1 and 2, 1 June 2023</u>
- <sup>40</sup> MOD, <u>Ministry of Defence annual report and accounts 2022 to 2023</u>, 20 July 2023
- <sup>41</sup> Defence Committee, <u>The US, UK and NATO: Government response</u>, (PDF) HC 1533 2022-23, 22 June 2023
- <sup>42</sup> US Department of Defense, <u>US partnership with UK, Australia enhances security</u>, 25 May 2023
- <sup>43</sup> PMO, <u>The Atlantic Declaration</u>, 8 June 2023

<sup>&</sup>lt;sup>37</sup> CRS, <u>AUKUS Pillar 2: Background and issues for Congress</u> (PDF), R47599.

<sup>&</sup>lt;sup>38</sup> Defence Committee, <u>Oral evidence: The US, UK and NATO</u>, (PDF) HC 184 2022-23, 2 November 2022, q243

### 3.1 The AUKUS trade authorisation mechanism

In July 2023 the State Department announced the "<u>AUKUS Trade</u> <u>Authorization Mechanism</u>" to facilitate trade of U.S. defence articles and defence services between the United States, the UK, and Australia in support of AUKUS programmes.<sup>44</sup> The mechanism will provide a "consistent framework" for direct commercial sales (private sector-to-government or private sector-to-private sector transfers) to speed up the processing of the "expected increase in volume of AUKUS-related defence trade. The State Department described it as an "interim measure" while the US pursues legislative changes.

On 25 October, during the visit by the Australian Prime Minister to Washington, the Biden administration said it had proposed to Congress an "ambitious proposal to transform US export control laws."<sup>45</sup>

The Congressional Research Service provides more information on US arms transfer restrictions, AUKUS and licence exemptions in: <u>US arms transfer</u> restrictions and AUKUS cooperation (IF12483) [PDF].

### Parliamentary analysis and response

There is broad political support for AUKUS pillar 2 activities.

The Shadow Defence Secretary, John Healey, has explicitly said "there will be no change in Britain's commitment to AUKUS" if Labour wins the next UK general election.<sup>46</sup> Mr Healey said that for Labour "AUKUS deepens our commitment to one of the UK's closest allies and supports our 'build in Britain' mission" and the partnership "transcends party politics". To help implement AUKUS, he said Ministers should create an "express route" for critical cross-government decisions over issues such as regulation, funding, and tech sharing.

In a report on the Indo-Pacific, the Foreign Affairs Committee welcomed the prominence given to AUKUS by the Government. The committee suggested the Government consider inviting Japan and South Korea to join pillar 2 activities.<sup>47</sup> The UK is already collaborating with Japan on developing a new combat aircraft system and the two countries <u>signed a defence treaty</u> in

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<sup>&</sup>lt;sup>44</sup> US State Department, <u>The AUKUS Trade Authorization Mechanism (ATAM): Ensuring swift and secure defense trade under AUKUS</u>, 10 July 2023

<sup>&</sup>lt;sup>45</sup> White House, Fact sheet: Delivering on the Next Generation of Innovation and Partnership with Australia, 25 October 2023

<sup>&</sup>lt;sup>46</sup> John Healey, Britain must feel the benefits of AUKUS pact, The Times, 2 February 2023

Foreign Affairs Committee, <u>Tilting horizons: the Integrated Review and the Indo-Pacific</u>, HC 172 2022-23, 30 August 2023

early 2023. In 2022 the UK signed a bilateral framework for closer cooperation with South Korea which called for "closer interoperability between our respective Armed Forces and capabilities across all domains."<sup>48</sup>

The Defence Committee similarly welcomed AUKUS in its report on defence and the Indo-pacific, published in October 2023.<sup>49</sup> The committee said pillar 2 offers "an immediate avenue for developing the UK's defence capabilities, and to access and share critical intelligence and technology." The committee also suggested expanding pillar 2 workstreams to include supply chains for munitions and critical minerals. The committee heard that New Zealand, Japan and South Korea would be "ideal candidates" to cooperate on pillar 2 activities. The committee suggested the Government should consider "opportunities to involve other likeminded nations and allies (...) but only if this can be achieved without compromising the strong relationships developed between the three AUKUS partners."<sup>50</sup>

### Expanding AUKUS to other countries?

The Foreign Affairs Committee is not alone in discussing expanding the membership of pillar 2 workstreams.

The Joint Statement issued by the UK, US and Australia on the second anniversary of the agreement notably said "we will seek opportunities to engage allies and close partners" as work progresses on pillar 2 activities.

Canada and New Zealand are often mentioned because of their involvement in the Five Eyes security network with the UK, US and Australia.

In July 2023, during a visit to New Zealand, US Secretary of State Antony Blinken said the door was open for engagement with New Zealand and other partners.<sup>51</sup>

Academics Stephanie Carvin and Thomas Juneau argue Canada risks being left out of important technological developments if it does not join at least some of the pillar 2 working groups, although they also say that Canada needs to be able to contribute to these groups and not just benefit.<sup>52</sup>

Eunjung Lim, Associate Professor at the Division of International Studies, Kongju National University, says the Foreign Affairs Committee's suggestion to include South Korea and Japan should be seriously considered by both

<sup>&</sup>lt;sup>48</sup> FCDO, <u>UK-Republic of Korea bilateral framework for closer cooperation</u>, 30 June 2022

<sup>&</sup>lt;sup>49</sup> Defence Committee, <u>UK Defence and the Indo-Pacific</u>, HC 183 2022-23, para 59

<sup>&</sup>lt;sup>50</sup> Defence Committee, <u>UK Defence and the Indo-Pacific</u>, HC 183 2022-23, para 59

<sup>&</sup>lt;sup>51</sup> Blinken says door open for New Zealand to engage on AUKUS, Reuters, 27 July 2023

<sup>&</sup>lt;sup>52</sup> Stephanie Carvin and Thomas Juneau, Why AUKUS and not CAUKUS? It's a Potluck, not a Party. International Journal, 78(3), 359-374.

countries. Lim suggests it "makes sense to collaborate with countries that can trust each other and have complementary strengths and synergies."<sup>53</sup>

Australia should also support Japan and South Korea's inclusion to help maintain the "balance of power" between China and the US-led alliance, argues Corey Lee Bell, a researcher at the Australia-China Relations Institute at the University of Technology.<sup>54</sup> He says Japan and South Korea would bring technical knowhow to the table, particularly in quantum computing and AI.

## 6 AUKUS in national defence strategies

#### 6.1 United Kingdom

#### Integrated Review and Indo-Pacific tilt

In March 2021 the <u>Government set out its plan to "tilt" its foreign, defence</u> <u>and security policy towards the Indo-Pacific</u>. The Government explained in its integrated review of security, defence, development and foreign policy that the region is "critical to our economy, our security and our global ambition to support open societies" and in the future will be "the crucible for many of the most pressing global challenges." The Government said it intends to become the "European partner with the broadest and most integrated presence in the Indo-Pacific."<sup>55</sup>

In March 2023 the Government refreshed the integrated review to reflect Russia's invasion of Ukraine and other developments. It reaffirmed the commitment to the Indo-Pacific, warning that tensions in the region are increasing and "conflict there could have global consequences greater than the conflict in Ukraine." The Government said it plans to develop a new network of Atlantic-Pacific partnerships, of which AUKUS is one.<sup>56</sup> Further analysis is available in Commons Library paper <u>The Integrated Review</u> <u>Refresh 2023: What has changed since 2021?</u> CBP 9750.

<sup>&</sup>lt;sup>53</sup> Lim Eunjung, <u>AUKUS strand B: opportunity for South Korea and Japan?</u>, Asia Pacific Leadership Network, 20 September 2023

<sup>&</sup>lt;sup>54</sup> Corey Lee Bell, <u>Australia should support Japan and South Korea's accession into AUKUS</u>, The Diplomat, 19 October 2023

<sup>&</sup>lt;sup>55</sup> Cabinet Office, <u>Global Britain in a Competitive Age: the Integrated Review of security, defence,</u> <u>development and foreign policy</u>, CP 403, 16 March 2021

<sup>&</sup>lt;sup>56</sup> Cabinet Office, Integrated Review Refresh 2023: Responding to a more contested and volatile world, CP 811, 13 March 2023

#### 2023 Defence Command Paper

#### In July 2023 the Ministry of Defence published its refreshed defence

<u>command paper</u>, reflecting the defence aspects of the integrated review update. The MOD articulates the need to shift from a platform-centric to technology-centric mindset. Harnessing new and emerging technologies is central to this shift, and the MOD identifies AUKUS pillar 2 projects as capabilities that will "help us to maintain our technological and military edge in an increasingly contested and unstable strategic environment."<sup>57</sup>

Resilience is another theme of the paper, and AUKUS is explicitly identified as an example of how integrating supply chains will provide greater resilience to the UK defence sector.<sup>58</sup>

Commons Library paper <u>Integrated Review 2021: emerging defence</u> <u>technologies</u> (CBP 9184) discusses some of the work underway to develop these new technologies.

#### Science and technology strategies

The <u>Science and Technology Framework</u>, in which the Government sets out its ambition to create Britain as a "science and technology superpower" does not explicitly mention AUKUS.<sup>59</sup> It does, however, set out a vision of the UK enjoying "international partnerships which support critical technologies and the growth of our sectors."<sup>60</sup>

Strategies related to pillar 2 do explicitly mention AUKUS; the <u>Defence</u> <u>Artificial Intelligence Strategy</u>, the <u>National Quantum Strategy</u> and the <u>UK's</u> <u>International Technology Strategy</u> all mention the agreement as a means to deepen international research and development collaboration.

## 6.2 Australia

#### Australia published a Defence Strategic Review and National Defence

<u>Statement</u> in April 2023 and plans on publishing a National Defence Strategy in 2024. It explicitly addresses Pillar 2 advanced capabilities, describing the success of AUKUS as "essential for Australia in acquiring asymmetric

<sup>&</sup>lt;sup>57</sup> MOD, <u>Defence's response to a more contested and volatile world</u>, CP 901, July 2023

<sup>&</sup>lt;sup>58</sup> Ministry of Defence, <u>Defence's response to a more contested and volatile world</u>, CP 901, July 2023

<sup>&</sup>lt;sup>59</sup> Department for Science, Innovation and Technology, <u>UK science and technology framework</u>, 6 March 2023

<sup>&</sup>lt;sup>60</sup> Department for Science, Innovation and Technology, <u>UK science and technology framework</u>, 6 March 2023

capability."<sup>61</sup> The review outlines the advantages it will bring to the Australian defence and security industry:

AUKUS Pillar II Advanced Capabilities will contribute to strengthening the AUKUS partners' industrial bases, eliminating barriers to information sharing, and technological cooperation. It will develop and deliver advanced capabilities in areas such as artificial intelligence, hypersonics and maritime domain awareness.

The ambition of the AUKUS partners is to support technological transfers as well as break down barriers for intellectual property transfer, domestic manufacturing, and domestic maintenance of key weapons, technology and capabilities. This requires dedicated senior-level focus.

## 6.3 United States

The US 2022 National Defense Strategy mentions AUKUS only once, in relation to building partnerships in the Indo-Pacific region.<sup>62</sup> A senior Defense Department official told members of Congress that the work AUKUS will do "will advance our own capabilities, as well as our partners', and will enable us to address the challenges that we will collectively face."<sup>63</sup>

Further analysis from a US perspective can be found in Congressional Research Service paper <u>AUKUS Pillar 2: Background and issues for Congress</u> (PDF), R47599. Defense News discussed <u>some of the Congressional activity</u> related to AUKUS and spending legislation in July 2023.

Separate to AUKUS, the US and Australia have a long-standing ministerial consultations framework known as AUSMIN through which they discuss common issues, including defence. For example, at the July 2023 meeting the US agreed to help Australia manufacture guided missiles and rockets for both countries within two years.<sup>64</sup> The US and Royal Australian Air Force have also been collaborating on developing and testing hypersonic cruise missile prototypes under the <u>Southern Cross Integrated Flight Research</u> <u>Experiment (SCIFiRE)</u>.

<sup>&</sup>lt;sup>61</sup> Australian Government, <u>National Defence: Defence Strategic Review 2023</u>, 24 April 2023

<sup>&</sup>lt;sup>62</sup> US Department of Defense, <u>National Defense Strategy</u>, 27 October 2022

<sup>&</sup>lt;sup>63</sup> US Department of Defense, <u>US partnership with UK, Australia enhances security</u>, 25 May 2023

<sup>&</sup>lt;sup>64</sup> ABC News, <u>US pledges to help Australia manufacture guided missiles by 2025</u>, 29 July 2023; US Department of Defense, <u>Joint Statement on Australia-U.S. Ministerial Consultations (AUSMIN)</u> <u>2023</u>, 29 July 2023

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