



Ministry
of Defence

Defence's response to a more contested and volatile world

July 2023



Defence's response to a more contested and volatile world

Presented to Parliament
by the Secretary of State for Defence
by Command of His Majesty
18th July 2023



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ISBN 978-1-5286-4291-0

E02937467 07/23

Printed on paper containing 40% recycled fibre content minimum

Printed in the UK by the HH Associates Ltd on behalf of the Controller of His Majesty's Stationery Office.

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Ministerial Foreword



We did not plan on issuing a new Command Paper just two years since the last, but we have gone from a competitive age to a contested and volatile world. Since March 2021, the threats and challenges we faced have manifested themselves, as have many of the technological advances predicted and our need to adapt faster to them if we are to continue outmatching our adversaries.

Russia's full-scale invasion of Ukraine was not simply an assault on a proud and sovereign nation. It was also an attack on our values, European security, and the open international order on which stability and prosperity have depended for over three quarters of a century.

We are proud of the role the UK is playing in supporting Ukraine in this fight. They are not only defending the international rules-based system on our behalf, but in many ways they are proving the way for warfare in the 2020s – whole of nation, internationally partnered, innovative, digitised and operating with tempo, precision and range. In turn, we are providing Ukraine with equipment, training and political support. We have galvanised European and international, governmental and industrial partners to do likewise. We are campaigning globally.

The return of major war to the continent of Europe – alongside growing threats elsewhere in the world – means we need to sharpen our approach. We need to ensure our warfighting capabilities are robust and credible to be able to deter threats from manifesting in the first place, but also to fight and win if they do. We need to be able to defend the homeland and make ourselves more resilient to all types of shocks. We need to be able to sustain

operations today – with sufficient stockpiles of munitions, and critical enablers – as well as investing now in the battle-winning capabilities of the future. We must address increasingly complex and diverse threats, by maximising our own growing but ultimately finite resources, which necessitates ruthless prioritisation and improved productivity.

In 2021 the MOD responded to the Integrated Review by publishing “Defence in a Competitive Age”, which emphasised the need for Defence to become truly threat-focused, modernised and sustainable. To seek out, understand and counter threats every single day. To invest in the capabilities to deter and defeat them, both today and tomorrow. And to match our ambitions with our resources so that we can sustain ourselves in that endeavour.

The conclusions of that Command Paper remain right – Russia was and is the greatest threat to European security. China's rapid military modernisation and growing assertiveness within the Indo-Pacific do pose an increasing challenge.

We are convinced that our strategic advantage comes from several key sources which require that prioritisation. It is derived foremost from our first-class people – our real battle-winning capability – in whom we are determined to invest: in their accommodation, their skills, and their overall employment offer.

It is derived from our investment in cutting-edge future technologies, including digital and data, and emerging scientific and technological advances. It is derived from our relationship with industry, which we must continue to strengthen into a new alliance, as a

genuine partnership to sustain our defence. And it is derived from our productivity, an ethos that is focused ruthlessly on the delivery of real-world effect. Recognising that our campaigning approach reaches in to every part of the Defence enterprise – from the front line to the back office.

Russia's invasion of Ukraine has reinforced the importance of international cooperation and the strength of our alliances. Notably NATO, but also the Five Eyes, the Joint Expeditionary Force, the Northern Group, and many more. They are at the heart of intelligence-sharing, operational cooperation, an integrated approach to deterrence, and the delivery of battle-winning capabilities: for example through the Global Combat Air Programme (GCAP) and AUKUS.

The refreshed Integrated Review, published in March of this year, was clear how we must respond to deteriorating global security: shape the global strategic environment, increase our focus on deterrence and defence, address vulnerabilities that leave our nation exposed, and invest in the UK's unique strengths. Defence is central to all of those efforts.

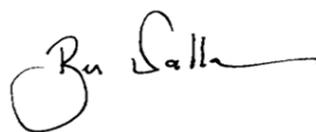
After three decades of drawing the post-Cold War 'peace dividend' this Prime Minister reversed the trend and provided Defence an additional £24 billion over four years, before investing further in response to the war in Ukraine and committing to increase spending over the longer term to 2.5% of GDP, as the fiscal and economic circumstances allow. We must transform now to counter today's threats, but this ambitious trajectory also enables our modernisation for the challenges of the future.

We are grateful to the hundreds of individuals and groups who contributed to the first challenge phase of this Command Paper Refresh – from academics, to serving personnel and companies from across industry – much of what we learnt from you is encapsulated in this document.

In recognition of those lessons, the increasingly challenging security context and Defence's contribution to all four pillars of the IRR we are articulating a new and clear purpose for Defence. Our mission is clear: to protect the nation and help it prosper.

That does not just mean more ships, tanks and jets – indeed in this document there are deliberately no new commitments on platforms at all – because on that we stand by what we published in 2021. Instead, we focus on how to drive the lessons of Ukraine into our core business and to recover the warfighting resilience needed to generate credible conventional deterrence.

Delivering the reforms in this Command Paper will ensure that we are able to do that – now and in the years ahead.



The Rt Hon Ben Wallace MP
Secretary of State
for Defence



The Rt Hon James Heappey MP
Minister of State
(Minister for the
Armed Forces)



Delivering on the Integrated Review Refresh – The Evolving Context and Our Strategic Approach

1. The refreshed Integrated Review (IRR) published in March 2023 identified that the transition into a multipolar, fragmented and contested world had happened more quickly and definitively than anticipated in the original Integrated Review. In response to this changing threat context, the IRR set out a new approach through an updated strategic framework delivered through four pillars:

(a) Shape the international environment.

Shaping, balancing, competing and cooperating across the main arenas of systemic competition, working with all who support an open and stable international order and the protection of global public goods.

(b) Deter, defend and compete across all domains. Accelerating the ongoing shift to an integrated approach to deterrence and defence, to counter both state threats and transnational security challenges. NATO is at the core of this effort, but we are clear that – given the changing threat picture – effective deterrence will mean working through other groupings and beyond the Euro-Atlantic theatre. Further, a renewed emphasis on the concept of strategic stability – establishing new frameworks and building a new international security architecture to manage systemic competition and escalation in a multipolar environment.

(c) Address vulnerabilities through resilience. Developing the UK's approach to resilience, shifting to a long-term campaign to address the vulnerabilities

that leave the UK exposed to crises and hostile actors. This will strengthen the UK's deterrence by denial and ensure that operational activity under pillar two can be focused where it has the greatest impact.

(d) Generate strategic advantage. Building on IR2021's focus on strategic advantage – the UK's relative ability to achieve our objectives compared to our competitors. In a more contested environment, this is indispensable to maintaining the UK's freedom of action, freedom from coercion and our ability to cooperate with others and is the underpinning for the other pillars of the strategic framework.

2. The IRR recognised that the global security environment required us both to act now and plan for the long-term. Therefore, in the Spring Budget the Government agreed that the Ministry of Defence (MOD) would receive a further £5 billion of additional funding over two years – in addition to the £24 billion received in cash terms (over four years) in 2020. This means that for the first time, the MOD's budget is now more than £50 billion a year – a clear sign of the importance placed on our contribution to the nation's security and prosperity. Furthermore, the Prime Minister has set out an aspiration over the longer term to invest 2.5% of GDP in Defence, as the fiscal and economic circumstances allow.

3. As we have seen starkly over the last sixteen months, the repercussions – and costs – of responding after threats manifest into conflict are immeasurably greater than if

those threats are adequately deterred or prevented in the first place. In this more contested world, deterrence is more important than ever, underpinned by the capabilities and alliances that will enable us to fight and win if needed. **In short, hard power matters.**

Threats and challenges

4. The immediate threat to the Euro-Atlantic region, and to the UK, has increased sharply as a result of **Russia's** actions. The world is now witnessing a major war instigated by a nuclear power, threatening to subjugate the sovereignty of another state. But Russia's full-scale invasion of Ukraine, building on its unlawful annexation of territories in 2014, is not just a brutal and illegal armed attack on a sovereign nation; it also poses the greatest challenge to the open international order in generations. Europe has not seen this scale of conflict since the end of the Second World War.

5. While Russia's failures in Ukraine have significantly weakened its land and guided weapon capabilities, it retains capable nuclear and strategic forces, and has the intent and capacity to rebuild and regenerate. We have witnessed the willingness of the Russian government to resort to irresponsible nuclear rhetoric, making the threat of nuclear escalation greater than at any time since the Cold War. Russia's maritime and air forces also remain largely intact, and the Russian state continues to actively threaten the UK and our allies below the threshold of conflict around the world. Russia continues to demonstrate its willingness recklessly to ignore international norms, from its use of

Novichok on the streets of the UK in 2018, to its large-scale use of mercenary forces in Ukraine and elsewhere. And as Russia becomes more isolated internationally as a result of its actions, and its behaviour more volatile, so the threats to the UK and our interests will likely increase.

6. The IRR also set out that as we move to a more contested world, systemic competition continues to intensify, driving the deterioration of the global security environment. **China** poses an enduring and epoch-defining global challenge to British interests – including Defence interests – through its increasingly assertive and coercive behaviour as it seeks to rewrite the international order that has provided stability and prosperity for generations. While pursuing a programme of accelerated military modernisation, China continues to flex its economic and military might to advance territorial claims in the Indo-Pacific and expand its influence across Europe, Africa and the Middle East, including through the proliferation of Chinese weapon systems. Despite previous Chinese claims of its peaceful rise, China has refused to renounce the use of force to achieve its objectives with regard to Taiwan. Escalating tensions in the Indo-Pacific, driven by China's actions, present a direct challenge to a region that we believe should remain free and open for the prosperity of all. However, as the IRR set out, the UK does not accept that China's relationship with the UK, or its impact on the international system, are set on a predetermined course. While we will always be clear-eyed about the risks of engagement, we will work to convince China of the need for it to play a responsible global role in keeping with its status as a P5 power and a major security player.



7. Both **Iran** and **North Korea** will remain volatile threats to security in their regions and beyond. In the last two years, we have seen both conduct destabilising activities across their respective regions and seek to advance their nuclear programmes, thereby threatening global security. We judge that these efforts will also continue.

8. The threat from non-state actors has not diminished. **Terrorist organisations** still aspire to attack the UK and our interests abroad. The instability of regions such as the Sahel, Lake Chad Basin and parts of the Middle East, and countries such as Afghanistan and Somalia, provide the space for such groups to expand. Increasing global access to information and technology has also increased the threats posed by hacktivists, single issue terrorists and more amorphous online criminal movements.

9. Confronted by climate change, economic challenges, the pace of technological change and competition for food and raw materials, states face increasingly complex and **diverse security challenges**. Competition between governments to adapt to changing environments, increase their resilience, and meet the basic needs of their populations risks international relations becoming more transactional at the expense of common interests. Our ability to understand the impact of climate change across Defence, and adapt to it, is key to strategic advantage. A failure by states to meet these needs risks fuelling major increases in migration, the rise of terrorism and conflict over resources. Vulnerable groups will almost certainly be disproportionately affected, posing additional **human security** challenges.

10. One of the most important trends of the last two years, however, has been the increasing **interconnectedness between regions and actors**. In the wake of the illegal invasion of Ukraine, we have witnessed a deepening of Russia's partnership with China, its growing cooperation with Iran, as well as the provision of weapons by North Korea to Russia in contravention of UN Security Council Resolutions. This leads to a world where the threats we face from actors manifest and proliferate across multiple regions, creating a more adversarial form of geopolitics. The irresponsible use of cyber capabilities, and of dis- and misinformation promulgated through social media, transcends geographic boundaries. This will shape how citizens and governments understand and respond to global events. Russia's illegal invasion of Ukraine has had consequences across the world, precipitating a refugee and energy crisis in Europe, as well as threatening food supplies in some of the most fragile parts of the globe. Coordination and cooperation between state and non-state actors is also growing. For example, we have seen Russian mercenary groups fighting in Ukraine, and pursuing Russian interests through conducting destabilising activity in Africa and the Levant.

Lessons from Ukraine

11. Our national security is intrinsically linked to the outcome of the war in Ukraine. Although we must be careful not to rush to definitive lessons from Russia's illegal invasion of Ukraine – the war is ongoing, the situation is complex, and the lessons will be profound – we must seize the opportunity to gain insights and adapt now. Some of these

insights will be strategic, for example relating to the art of deterrence, strategic stability, the role of economic measures within a conflict, and escalation management. Some of them will be tactical, relating to a battlefield that – with trench warfare – has disturbing echoes of the early twentieth century, overlaid by twenty-first century capabilities. Many of the insights reinforce the journey we are already on, but also indicate where we need to go further or faster.

12. The events of the last two years have underscored the centrality of **NATO** to our national security. The unity of NATO has held firm throughout the conflict; and our **interoperability** is part of our strength and our ability to deter and defend against threats. The collective security provided by NATO is our strongest bulwark against state aggression, such that the sustainment of the NATO alliance, in part through our own leadership and increased contributions, is a strategic priority for UK Defence.

13. The essential role of **alliances and partnerships** more generally is also clear from the last two years: our ability to invoke alliances and partnerships around the globe to protect UK territories and interests forms an important part of our credibility in the eyes of would-be aggressors. The interconnectedness and indivisibility of different regional theatres has also become more apparent than ever: support for Ukraine has come from the Indo-Pacific as well as from the Euro-Atlantic; and Atlantic-Pacific relationships have grown in both depth and importance.

14. The war in Ukraine highlights the importance of the **credibility of our capabilities**, both **conventional and nuclear**, on the earth or in space or cyberspace, to

deter threats against us. It affirms the **modern western way of warfare**: joint and all-domain, underpinned by data and information, both open-source and highly classified. It also emphasises the urgent requirement to continue to **modernise the force** to keep pace with technological developments today, and to evolve to meet the threats of the future. It reinforces the need to understand and **exploit the impact of digital capabilities**, and invest in them now to enable greater precision, speed, lethality and mass. There is a requirement for sufficient mass and game-changing technology, with the two often combined. Both our ability – through the capabilities we possess and our skill at employing them – and our will, demonstrably and convincingly to defend our territories and our Allies, are critical to our deterrent effect.

15. The value of **adaptability at pace** – agility – on the battlefield has become clear. We have learned that staying ahead of the threat and gaining strategic advantage can be achieved through novel and creative means, exploiting technology and adapting weapons systems, such as Uncrewed Air Systems, during contact, rather than relying entirely on an existing force package. This underscores the requirement for a **more agile acquisition process** and an even **stronger partnership between government and industry, both primes and small- and medium-sized enterprises**. The versatility of the whole UK Defence enterprise, with the flexibility to respond to changing threats and adapt to new technologies, must become its strength, and will be critical to ensuring the enduring credibility of the force.

16. A further reflection is on the critical importance of effective **sustainment** of operations – the ability of a force to stay in the

fight, even as the duration and intensity of a conflict grow. This highlights the need for sufficient **stockpiles and munitions**, underpinned by a resilient economic and industrial base at home. It also reinforces the critical role of **logistical** enablers, including the ability to get the right equipment – and people – to the right place at the speed of relevance.

17. The resilience and fortitude of the Ukrainian people has been inspirational, and a reminder of the strength, stamina and adaptability of the human spirit. This re-emphasises the need to **provide our people with the skills and support** necessary to maximise their potential, to unshackle them from excessive process, and to strengthen the connection between the Defence enterprise and society, including



Ukrainian troops receiving battlefield training in the UK

through the **Reserves**: prevailing in war requires a national effort.

18. Russia will also be learning lessons from its experiences in Ukraine and seeking rapidly to implement these at both the tactical and operational level. China too will be observing the conflict, and drawing conclusions, including about the unity and staying power of the UK and our allies and partners.

Our Strategic Approach

19. Events since the 2021 Defence Command Paper (DCP21) have shown that we were right to make the commitments we did, and that our efforts have been on the right track. We have led the way in Europe on support for Ukraine's defence, galvanising others to follow suit. We have remained a leading contributor to NATO, consistently meeting our commitment to spend at least 2% of GDP on Defence – recognising the Defence Investment Pledge as a floor not a ceiling. We have demonstrated our global reach through activity on land, sea and air in the South Atlantic, Caribbean, High North, across Africa, the Middle East, the Caucasus and Central Asia and right across the Indo-Pacific, including the deployment of the Carrier Strike Group in 2021. We have built stronger alliances and partnerships, including bilaterally and through NATO, the Five Eyes, and the ten-nation Joint Expeditionary Force. We have maintained a hard military edge, not least through our Special Forces, our nuclear capabilities, and our cross-domain conventional forces integrated with NATO – all underpinned by exceptional intelligence capabilities. But the changes in the context in which we find ourselves require us now to go further and faster.

20. In support of the four pillars of the IRR, we have articulated a new, clear purpose for Defence: **to protect the nation, and to help it prosper.** To deliver this, we will focus on four priorities:

What?	How?
<p>Protect the UK, its Crown Dependencies, and its Overseas Territories, and contribute to the collective deterrence and defence of the Euro-Atlantic area: able to deter and, if necessary, defend against and defeat, attacks on the UK homeland (including our Overseas Territories) and our NATO Allies.</p>	<p><i>By modernising our strategic nuclear deterrent, delivering a credible warfighting force, enhancing our contribution to NATO, accelerating modernisation of the force, continuing to support Ukraine, and increasing our investment in homeland defence and national resilience.</i></p>
<p>Pursue a campaigning approach to counter the threats from state and non-state actors, wherever they manifest in the world, working in an integrated way with allies and partners to achieve focused and impactful results.</p>	<p><i>By embedding campaigning as the way Defence delivers its effect, integrating all the levers of defence power in a targeted approach, with allies and partners, and across Government, enabling forward deployment and persistent presence, and developing exportable expertise.</i></p>
<p>Promote our national interests globally, building influential relationships, and maintaining engagement and access.</p>	<p><i>By collaborating with our core network of democratic allies and partners, building deeper relationships with influential ‘middle-ground powers’, investing in and exploiting our existing permanent presence, and maximising the benefit from pulsed deployments, defence diplomacy, capability collaboration and defence exports.</i></p>
<p>Secure strategic advantage, achieve greater economic and industrial resilience, and contribute to national prosperity.</p>	<p><i>By investing in our people, exploiting innovation in digital, data and science & technology, forging a closer relationship with industry, improving our acquisition processes, adopting an activist approach to defence exports, and maximising our productivity, enhancing readiness and lethality.</i></p>

21. To meet the challenges head on, and to seize the opportunities that emerge, we will need to be:

- **Threat-led.** This means being proactively focused on the threat from our adversaries, able to deter – and if necessary, defend against and defeat – attacks above and below the threshold of conflict. We will be optimised to fight, whilst able to operate in lower-intensity scenarios to compete effectively. We will embed a sustained, campaigning approach that keeps pace with the evolving threat context. In line with the IRR, this means ‘think long-term; act now’. We will focus on the lethality, availability and readiness of our capabilities to meet the threat picture.
- **Adaptable.** The ability to adapt at speed is a determining factor for prevailing in conflict. In a volatile world, the achievement of advantage over our adversaries is an unending, iterative effort. Therefore, the versatility of the UK Armed Forces will be its strength – an ever-green force, with an agile mindset, always adapting to stay ahead. Our people are at the heart of this strategic advantage – and we will recognise that in how we invest in them: their commitment, ingenuity, adaptability and drive make them the most important asset we have.
- **Allied by Design.** Our alliances and partnerships are critical to our security and prosperity – whether through sharing intelligence, operating alongside one another, or building the next generation of capabilities. While we will prioritise our core relationships with our closest allies and partners, we will also invest in deepening relationships with other partners across the world, many of whom exert growing influence both in their own regions and globally. We will be Allied by Design and national by exception.
- **Integrated.** To address the increasing range and complexity of threats globally, in space, and in cyberspace, we will foster a truly integrated approach to deterrence and defence. This means enhancing integration across all services and domains, across Government, and with allies and partners, and industry, as well as across regions, and the spectrum of conflict.
- **Innovative.** Modernisation is the key to our fighting edge. We will accelerate the modernisation of our capabilities, through innovation and experimentation. We need to continue to prioritise research and development, and science and technology, working ever closer with industry to achieve faster pull-through of next-generation capabilities. Our strategic advantage is maintained when Government and industry are working in lockstep. A common endeavour will ensure clearer requirements, secure a robust industrial base and resilient supply chains, and enable faster development and fielding of new capabilities.
- **Digitised.** We will seize the game-changing opportunities offered by the digital advances of recent years to maintain a decisive advantage against our adversaries. This will mean shifting our thinking to fully integrate both steel and software, iteratively developing – spiralling – our existing capabilities to achieve battle-winning advantage. This also requires us to invest in enhancing the skills of our people, and to take our Allies with us on the journey.

A refreshed Defence Command Paper

22. In 2021, we responded to the original Integrated Review with a Defence Command Paper that set out, comprehensively, how we would design and equip the force for the decades ahead. Much of that is unchanged by this Paper. We have been following the lessons of Ukraine carefully as well as measuring the success, or otherwise, of our activities around the world. Where our position in DCP21 has been vindicated, we stand by it. Where we have seen that we must move more quickly or do things differently altogether, we have set out in this paper how we intend to do so.

23. Our focus is drawn to how we meet such a broad spectrum of threats, across the globe and across all domains. Even with increased budgets, we know we cannot just continue to do more of the same.

- Our workforce needs are changing quickly, and we must respond with a **new employment model and skills framework**.
- Technology is changing quickly, and we must respond with a renewed **focus on science and technology** placing it at the heart of our force design and capability development.
- The battlespace is changing quickly, and so we must respond with a **new partnership with industry** and a focus on delivering rapidly upgradeable capability more quickly.

- And the threat is changing quickly, inescapably requiring us to do more, and so we must be ruthless in seeking **productivity gains** to allow us to meet that demand.

24. With those necessities in mind, we have inverted the traditional structure of the Defence Command Paper. The transformation of our organisation comes in the first part because it recognises that whilst the Royal Navy, Army, Royal Air Force, and Strategic Command are at the tip of the spear, we compete with our adversaries across the whole of our enterprise. From the recruiter on the high street, to the scientist in their laboratory, to the procurement teams at Defence Equipment and Support (DE&S), and at every desk in every directorate across the whole of the MOD and our agencies; everybody in our organisation plays a part, every day, in making sure that we are quicker and better at everything we do than our competitors and adversaries.

25. In the second part of the paper, we focus on our strategic ambition and how we deliver it through investment in our nuclear enterprise; whilst with the ships, regiments and squadrons in the conventional armed forces beyond we make three broad changes. Firstly, we re-emphasise our commitment to NATO. Secondly, we invest initially not in more fighting platforms but in the strategic enablers, infrastructure and stockpiles needed to make our capabilities resilient and credible; for it is those things – not the inventory on paper – that underpin real deterrence. And thirdly, we bring greater coherence to our global operations through a new Global Response Force.

IR2023 Strategic Framework

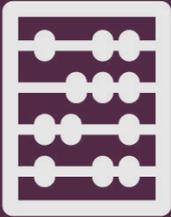
Defence's Purpose:

Protect the Nation and Help it Prosper



Shape the international environment

Defence contributes through: Global approach to campaigning and competition; alliances and partnerships; bilateral relationships and multilateral and minilateral groupings; engagement with middle ground powers; supporting others to deliver their security; an integrated global network of people and bases.



Deter, Defend & Compete across all domains

Defence contributes through: Credible capabilities, nuclear and conventional, cyber and space; our role in NATO; our support to Ukraine; a resilient underpinning of stockpiles, enablers, and intelligence.



Address vulnerabilities through resilience

Defence contributes through: Defence of the homeland; protection of airspace and critical national infrastructure, including subsurface; support to the civil authorities; economic security; use of our Reserves.



Generate strategic advantage

Defence contributes through: Our people; a strong relationship between Defence and industry; slicker acquisition processes; modernisation through innovation; digital and data, science and technology; our role in supporting economic growth and national prosperity, including defence exports.

26. We then set out a global campaigning approach that brings together all levers of Defence, in conjunction with wider Government and others, and in an organised and active way, to achieve our goals: from the wide network of Defence Attachés, short-term training teams, and joint exercises and operations that develop bilateral relations with friends and partners around the world; to our determination to both protect our nation and help it prosper through promoting UK Defence exports. We draw out the importance of our relationships around the world: from new capability partnerships like the Global Combat Air Programme (GCAP) and our plans to build conventionally-armed, nuclear-powered submarines and share emerging military technologies between Australia, United Kingdom and United States (AUKUS); to our support for regional security groupings like the Joint Expeditionary Force, Dragon Group, Accra Initiative or as a partner to ASEAN. Finally, we set out the critical role Defence will play in protecting the homeland and in making the nation more resilient, from policing UK airspace through to working with other Government Departments to bolster our economic security.

Part 1

Securing and Maintaining our Strategic Advantage



Chapter 1:

Our People

1. Our people come first, both in this paper and in all of our thinking as a Department – because they are inescapably the foundation on which our strategic advantage is built. Regular, reservist or civil servant, they are the most important asset we have. As ever more autonomy and Artificial Intelligence come into the workplace, their importance does not diminish; instead, we would argue, they become ever more critical.

2. Defence will always need courageous people to do dangerous things; we cannot see a future in which that is not required. And so the contract between the nation and its service personnel must always have at its core that acknowledgement of the unlimited liability that they accept in the course of their duties. For that reason, more than any other, we must force ourselves to be the best employer that we can be and continue to work with the rest of Government to ensure service people, their families and our veterans are looked after.

3. Service in our nation’s armed forces has always been a fantastic vehicle for social mobility, giving generations of people – whatever their qualifications – the opportunity to serve around the world, and over the course of their careers to acquire skills, expertise and rank that not only transform their lives, but give new horizons to their families.

4. In the next decade we must transform our workforce to meet the ever-growing demand for technical skills in the modern battlespace but we must do this by upskilling

our current service personnel and enhancing our training, education and apprenticeship offer to those who are joining anew. We are proud to recruit from every community in the United Kingdom – we will continue to do so.

5. Moreover, we need to broaden our appeal to attract people with skills and experience acquired prior to joining and so we must look at our career structures and remuneration to reflect that not everyone joining Defence is doing so in their late teens or early twenties and in their first job. Furthermore, once we have good people in our organisation, we must do better at retaining them. That is why the Secretary of State for Defence commissioned the independent Haythornthwaite Review – the first complete look at the terms and conditions, and incentivisation, of service in our Armed Forces, since the Bett Review of the 1990s.

6. The Haythornthwaite Review was laid before Parliament on 19 June. We will immediately focus on taking forward its recommendations to modernise our offer across the whole force. Such is the scale and scope of the Review, we have identified three key areas of the Review’s recommendations to take forward as a priority: greater career flexibility through a Spectrum of Service; enhanced effectiveness of our offer by adopting a Total Reward Approach; and the digitalisation and simplification of our people management system.

Skills

Over **100** Apprenticeship Schemes support social mobility, with **57%** **STEM-related** and over **20,000** people under training at any one time.



Address skill shortfalls in **digital, STEM, nuclear, space and cyber** over the next 3 years.

Diversify

We will continue to **diversify our workforce**, including increased recruitment of women and ethnic minorities.



Progress towards a **Single Armed Forces Act**

Promoting **'Zig-Zag' or 'portfolio' careers** to promote mobility between the public and private sector.

Adopt a **Total Reward Approach** in line with the Haythornwaite Review



Reward

Flexibility

Supporting service personnel and veterans



£400M investment in accommodation over next 2 years

New **Career Transition Partnership** to further support our Veterans



£3.5M already claimed as part of **Wraparound Childcare Scheme**

The Forces Help to Buy

scheme is now permanent and has been used by **28,000** Service personnel.



Championing inclusion and diversity and **tackling unacceptable behaviours** through zero tolerance policies.

Progress



Reserve Forces 30 recommendations

Inspiring the next generation

We will increase number of Cadets in schools to **60,000**



Partner with Further Education Colleges to **provide pathways into Defence careers.**

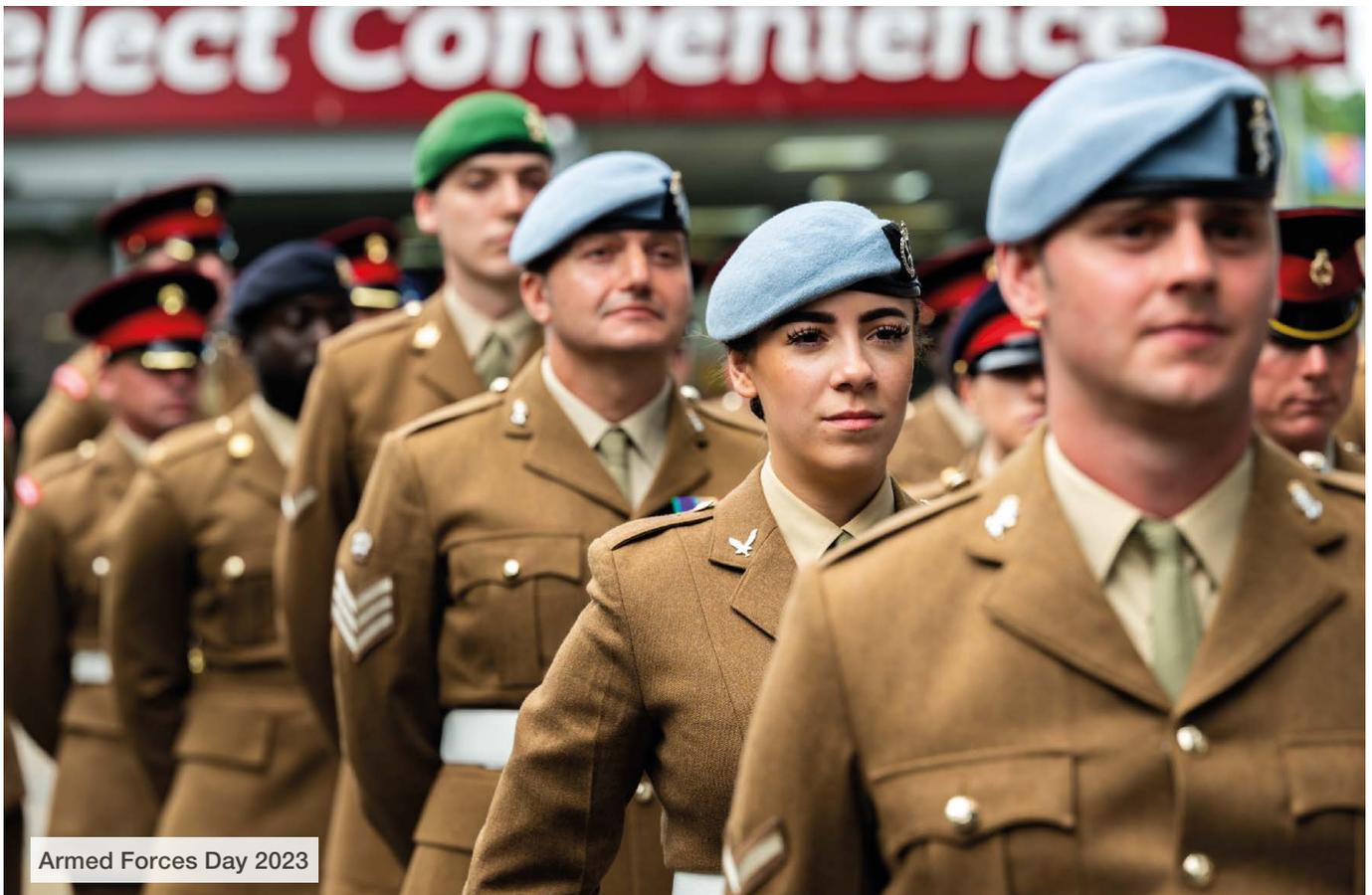


People: our most important asset

Career flexibility

7. We recognise that many young people entering the workforce today take a different view to how they will build their careers, compared to the generations that have gone before. They envisage careers that are flexible and see themselves working in a number of different professions, rather than progressing within a single organisation. We will therefore promote **'zig-zag' or 'portfolio' careers** for all our people who want them – embracing greater opportunity for career mobility between jobs in Defence and whatever other employment they'd like to pursue elsewhere.

8. We are comfortable that our people will flow in and out of Defence to reflect the changing demands in their lives and their personal priorities. Put simply, we would rather a talented engineer served for six years and then came back to us for ten more after doing a few years of something different in the meantime, than forcing them to leave the armed forces altogether because we insist on full unbroken commitments to service. Serving the nation in our Navy, Army or Air Force is a job opportunity unlike any other and so we must have the confidence that if we allow more flexibility in military career management, we will end up with more of our



Armed Forces Day 2023



people spending much more of their working lives in uniform than is currently the case.

9. Defence is the largest employer in a national security ecosystem that includes the security agencies, the Defence industry, and its wider supply chain. It is in the interests of all that our people gain experience and further their technical qualifications both during their time in Defence and while working in the wider defence and security sector. We believe that by helping people in our most technically demanding trades to gain experience across the sector, we will unlock niche skills and retain specialists for longer. Those in the wider sector might also consider broadening their own experience through employment in Defence. This is not only to the advantage of the Ministry of Defence but also rapidly growing UK industries – like space, cyber security, nuclear and advanced manufacturing – which will contribute enormously to the country’s future prosperity and security.

10. We will therefore offer a **‘Spectrum of Service’** that will enable us to be better at retaining and surging talent across the whole force. This will mean increasing fluidity between the military, the Civil Service and industry, as well as between full- and part-time employment, through transforming career structures and creating a continuum between regular and reserve service. To do this, we will progress towards a **single Armed Forces’ Act**, to remove the structural barriers that limit our ability to maximise our talent across the whole force.

11. We must also revolutionise the **way we recruit** to ensure that our inflow better matches the needs of the services. We will therefore increase recruitment into our Armed Forces over the next two years and transition

to a transformational tri-Service recruitment model. This model will be supportive of our need to increase lateral entry into Defence for those who are already well into their careers, but also ensure that we continue to offer employment to the widest pool of talent, including to those who start with no qualifications.

12. This flexibility of service across a whole force will change the way we think about the ‘size’ of our Armed Forces. For too long, headcount has wrongly been seen as a proxy for outcomes with the size of the regular forces taken as a totem of our national military prowess. Over the decades ahead, the ships, tanks and planes in our strike groups, armoured brigades and combat air squadrons will require ever fewer people but that will not necessarily mean our workforce will be smaller. We may have fewer people on the front line but a much larger community of specialists supporting them. As we learn more from Ukraine about the changing nature of modern battle and explore the opportunities in AI and automation, we will **maintain our force levels broadly at the levels announced in DCP21.**

13. In line with the Haythornthwaite Review, we will **adopt a Total Reward Approach** that links organisational objectives with skills and specific personnel goals. This approach, which we will pilot through a selected engineering cohort in 2024, will recognise that the way we remunerate our people is often much more than their core salary. Our offer to our service personnel – including accommodation, subsidised food, child support, medical and dental care, and pension – reflects a package that is worth significantly more than salary alone, and in many individual cases will eclipse that which

would be on offer in the private sector. By better targeting the financial and non-financial reward levers available to Defence, we will be able to **offer a more compelling and competitive incentivisation package** to those currently serving as well as to those we seek to attract.

Transforming how we manage our people

14. In a digital-first world, we will make the most of the **opportunities offered by automation and Artificial Intelligence**. We will both grow an adaptable and sustainable workforce that can adjust quickly to evolving demands, and harness modern technologies to drive greater efficiency and effectiveness. As a top priority, we will look to digitalise and simplify our whole force people system, exploiting modern technology, simplifying existing policies and process, and removing the barriers that prevent flexibility and workforce agility and restrict access to talent.

Skills for the future

15. Defence has proved to be one of the nation's most powerful **engines for social mobility**, including as a result of our training and education offer. As an open and modern employer, we recruit from the whole breadth of society, providing equality of access to employment and training irrespective of background – providing powerful agency to 'Levelling-Up'. We will place skills at the heart of the way we access, plan and manage our workforce, tailoring our approach so that we recruit, train, manage and incentivise

our people in much more targeted and efficient ways.

16. We will accelerate the delivery of the Pan-Defence Skills Framework, through which we are mapping out the skills needed for each and every role in the entire Defence enterprise and the force design of the future. This **skills-based approach** will allow us to better target our training and education, recognising our responsibility to not only attract people into the organisation who already have the necessary skills and expertise, but also to upskill those that we recruit and, just as importantly, those who are already in our workforce.

17. As a matter of priority, over the next three years, we will **address our most critical skills shortfalls**, particularly in **digital and STEM** (Science, Technology, Engineering and Maths). As we invest in upskilling our own people in these areas, as well as in **nuclear, space, and cyber**, we will also work more closely across Government, and with industry and academia, to ensure that we are growing those skills nationally. In partnership with industry, our pool of engineers, cyber specialists, data analysts and scientists, will both be the digital warriors of the future and will help underpin national growth and prosperity.

18. We will maximise the use of new initiatives, including **digital training to upskill** both those entering the Defence enterprise and those already in it, further developing the Digital Skills for Defence (DS4D) project. DS4D, funded to £19 million over three years, and working closely with industry and academia, will embark on an ambitious pan-Defence programme for all Defence staff to transform their digital skills, through a



Armed Forces Day 2023

Virtual Digital Skills Fusion Academy linked to the Defence Academy. This will work alongside world-leading organisations and institutions to upskill over 65,000 leaders, technically upskill 13,000 digital professionals and raise the digital bar for the entire 250,000-strong workforce. Strategic industry partners, including Amazon Web Services and Microsoft, will assist. We will adopt a new approach to reward, better recognising those who bring **tech talent** to the organisation. We will encourage **greater fluidity and mobility** between Government and industry for our most digitally able civil servants and military personnel, opening new opportunities for our national talent, and supporting national prosperity.

19. There are over 100 **apprenticeship schemes** on offer within Defence, with over 20,000 apprentices under training at any one time. 57% of the schemes are STEM-related and many are up to Degree-level equivalence. The Army, Royal Navy and Royal Air Force were ranked first, third and seventh respectively in the UK's top 100 apprentice employers in 2023. We will build on these foundations and offer even **more placements and secondments** to and from Defence, so that our people can deepen their specialisms and skills-base. This will start through the provision of learning credits and funding for those undertaking qualifications in fields where we are short of skills, and then extend to providing other pathways to higher education.

Supporting our service partners and families

20. We recognise the invaluable contribution **partners and families** make to Service life and the critical supporting role they play in sustaining operational capability. Andrew Selous MP conducted an independent review to understand the needs of Armed Forces' families at the Government's request. Reflecting his 'Living in our Shoes' report, a revised Armed Forces Families' Strategy has been launched. It establishes Defence's ten-year plan to drive modern, family-friendly elements into people-related policies.

21. In September 2022, the Wraparound Childcare initiative was launched; since then, over 7,000 Service children have been registered onto the scheme, with over £3.5 million already claimed to support families. By 2024, we will have expanded this access to childcare for those working in overseas locations. We will also launch the **Defence Early Years strategy by March 2024**, to increase capacity in childcare provision, serving Defence locations across the UK. We are also determined to work with others outside Defence – including the NHS and Department for Education – to ensure that Service children are provided with more bespoke advice and support. In May 2022 the MOD reached agreement with the Universities and Colleges' Admissions' Service to adjust its application process to better support personnel, veterans and dependents entering higher education.

22. The provision of service accommodation is essential for the operational effectiveness of the Armed Forces and a key component of the offer we provide to our people. Whilst we have invested considerably in subsidised accommodation for our people, too many do not have the standard of housing that they should reasonably expect. Recognising this, in October 2022 we published the Defence Accommodation Strategy that set out an enhanced accommodation offer for personnel, their partners and their families. The strategy establishes a new minimum standard for Single Living Accommodation against which

the estate is now being assessed and includes significant investment.

23. Defence remains on track to deliver more modern and sustainable facilities for the Armed Forces, including through the wider Defence Estate Optimisation Portfolio. To support the ongoing delivery of new and refurbished military residential accommodation and housing for over 40,000 soldiers, sailors, aviators and their families, Defence will **inject a further £400 million over the next two years** to ensure that we provide the modern accommodation that our service families deserve. As well as



Royal Navy Sailors working together

contributing to Defence personnel retention and effectiveness, the Defence Estate Optimisation Portfolio will support the Government's 'Levelling Up' priority, creating employment opportunities and providing land for social housing.

24. We also recognise that **our accommodation offer should reflect contemporary needs**, delivering our commitment to allocating accommodation to personnel in long-term relationships on the same basis as those who are married or in a civil partnership. We will move away from rank-based allocation of family accommodation to a model that is needs-based. We will support home ownership through the Forces Help to Buy scheme, which has now been made permanent and has already enabled over 28,000 Service personnel to step onto the housing ladder.

25. Following a review into catering provision, a new **Catering Strategy** has been agreed across the Armed Forces. The strategy puts the needs of personnel at the heart of the provision, with healthier dining choices available and delivered in a fashion better aligned to modern-day living. Ahead of new contracts in 2026, we are working with industry providers to bring in as many aspects of the new food provision as possible from January 2024.

26. We want the UK to be a great place to be a veteran. Defence has invested over £40 million to digitise veterans' welfare services, pensions, and compensation schemes. Over 10,000 organisations have signed the Armed Forces Covenant, recognising the value veterans bring to their business and the nation's economy. The new Career Transition Partnership will enhance

the support we give to our personnel, so that they transition successfully from the Armed Forces.

27. With the Office of Veterans' Affairs, we are rolling out Veterans' Recognition ID Cards in 2023, and are reviewing the way in which we provide services to our veterans: this includes working with the NHS for tailored support to veterans such as Op Courage, which provides mental health support for veterans, service leavers and reservists; integrated personal commissioning for those with complex physical health needs; and veteran-friendly accredited GPs. **Our veterans are a national asset** and we will continue to champion their service and their enduring value to society.

Harnessing the Whole Force

28. The War in Ukraine has reminded the world that **Reserves are essential both on and off the battlefield**. Making the Armed Forces more capable and resilient, the Reserves deliver both mass and access to battle-winning specialist civilian capabilities that Regular forces cannot readily generate or sustain. They are also a crucial part of Defence's engagement with the nation. Reservists must be recognised – at all levels in Defence – as a vital part of the Defence workforce and the introduction of the Spectrum of Service will further enable their utilisation and effectiveness.

29. To enhance the way they are supported we will build on the Reserve Forces 30 recommendations, to address identified policy and process frustrations, and to tackle the cultural and resource issues our Reservists face. This action will also seek to improve the

structures and mobilisation processes needed to generate the second- and third-echelon forces that will reinforce and sustain warfighting capabilities and protect the homeland – our **Strategic Reserve** – as well as ensuring we can make better use of Reservists’ specialist civilian skills in Defence.

30. Defence is already an environment where talent thrives and where careers are nurtured, and we will make sure this remains the case. Diverse teams are stronger, more innovative and less prone to group-think. To ensure we recruit and retain people with the skills we need, we will **champion inclusion** across the organisation’s breadth and depth, fostering an environment where people at every level are empowered and valued. We will continue to **diversify our workforce**, including through increased recruitment of women and ethnic minorities. We will explore how we can better recruit and support people with disabilities.

31. Considerable progress has been made in delivering improvements for all our people, by increasing confidence, transparency, flexible working, and tackling unacceptable behaviours through our **zero tolerance policies** (including in response to Sarah Atherton MP’s report ‘Protecting Those Who Protect Us: Women in the Armed Forces from Recruitment to Civilian Life’). We are transforming our Service Justice and Service Complaints’ systems to increase trust and accountability. We remain ambitious, however, to deliver more and accelerate the pace of this change. The launch of our Defence Race Action Plans will drive further positive change for members of ethnic minorities. We have commissioned Lord Etherton’s report on the way LGBT people were treated by Defence prior to 2000 and will

continue to work through his recommendations.

32. The continued success of Defence is underpinned by the **calibre, professionalism and commitment of its Civil Servants** – regardless of role, location or grade. This is exemplified through the outstanding work our Civil Servants have undertaken to support Ukraine, across multiple lines of activity: procurement, logistics, policy, capability development, and finance, amongst many others. Civil Servants are not only fundamental to the strong performance of the MOD as a Department of State and strategic headquarters; across every part of Defence, they are all focused on delivering the priorities of the Government, and essential to supporting the outputs of the Armed Forces. A modern Civil Service is skilled, innovative, ambitious, and determined to keep evolving to adapt to a changing world. Within Defence we remain committed to Civil Service reform through the development of a ten-year reward strategy for Civil Servants in Defence, the introduction of improved long-term workforce planning, and by modernising our approach to the way we attract, recruit and retain talent.



Civil Servants and a member of the Armed Forces in Ministry of Defence Head Office, London

Inspiring Youth and Cadets

33. Independent research conducted by the University of Northampton has demonstrated that the valuable life skills gained from the cadet experience, including self-discipline, confidence, and resilience, improve employability and social mobility. The Ministry of Defence sponsors five cadet forces: the Sea Cadet Corps, the Volunteer Cadet Corps, the Army Cadet Force, and the Air Training Corps, all based in the community; and the Combined Cadet Force based in schools. There are over 135,000 young people and nearly 26,000 adult volunteers in approximately 3,500 cadet units across the

United Kingdom. Through the joint MOD and Department for Education Cadet Expansion Programme, work is progressing on the Government's ambition to **increase the number of cadets** in schools to 60,000 by April 2024, ensuring that more children in state schools have the opportunities that have long been a feature of the independent sector. We will also partner with Further Education Colleges across the nation to provide young talent with **clearly defined pathways into careers** in Defence.



Army Cadets

Chapter 2:

Transforming the Force through Science, Innovation and Technology

1. The global technology landscape is more complex and dynamic than ever. We believe that one of the main discriminators in both global competition and future warfare will be the ability to manage and harness technology. Defence is therefore proudly at the forefront of the Government's ambition for the UK to be a **Science and Technology (S&T) Superpower** and we embrace the important role we play within the **UK S&T Framework**, which sets out the Government's goals and vision for S&T through to 2030.

2. We will embed the pursuit of **strategic advantage through S&T** in Defence,

enhancing our ability to identify, exploit and secure key emerging scientific and technological developments, push the most relevant technologies into operational capability, and secure a range of military and national benefits. **Support to the National S&T Council (NSTC) will be at the heart of our approach.** We will contribute to the delivery of the NSTC's goals, using a range of Defence levers at our disposal; we will prioritise investments and capabilities that complement, rather than duplicate, wider Government activity; and we will work with the rest of Government to ensure that



Exercise OLYMPUS WARRIOR, Cyprus. Royal Marines exercise with use of heavy lift drones

Defence can leverage the wider S&T advantage generated by the UK S&T Framework to deliver military advantage and security.

3. Recognising that maintaining our technological edge is as battle-winning as anything in the force, **we plan to invest significantly more than £6.6 billion in advanced Research and Development (R&D)** to create and seize the opportunities presented by new and emerging technologies, to enhance the military capabilities available to the UK and our allies, and to help maintain our strategic advantage.

4. The Defence S&T enterprise is the bedrock of our R&D system. We will therefore increase investment in our in-house capabilities in those areas which are key to evolving security challenges and future technological advances, or which underpin MOD's ability to engage effectively with external partners and suppliers. Among our key priorities are the **five critical technologies** identified by NSTC:

(a) Artificial Intelligence. AI is a strategic priority for Defence, as set out in the Defence AI Strategy, one of whose key goals is the strengthening of the UK's defence and security AI ecosystem. We will deliver innovative capabilities to support current operations (primarily in Command & Control and Intelligence) and tools for greater organisational agility like supply chain management. We will increase investment in AI-enabled military capability options, prioritising them in Force Development and 'balance of investment' exercises, and identifying 'quick win' capability enhancements and new AI options in major programmes.

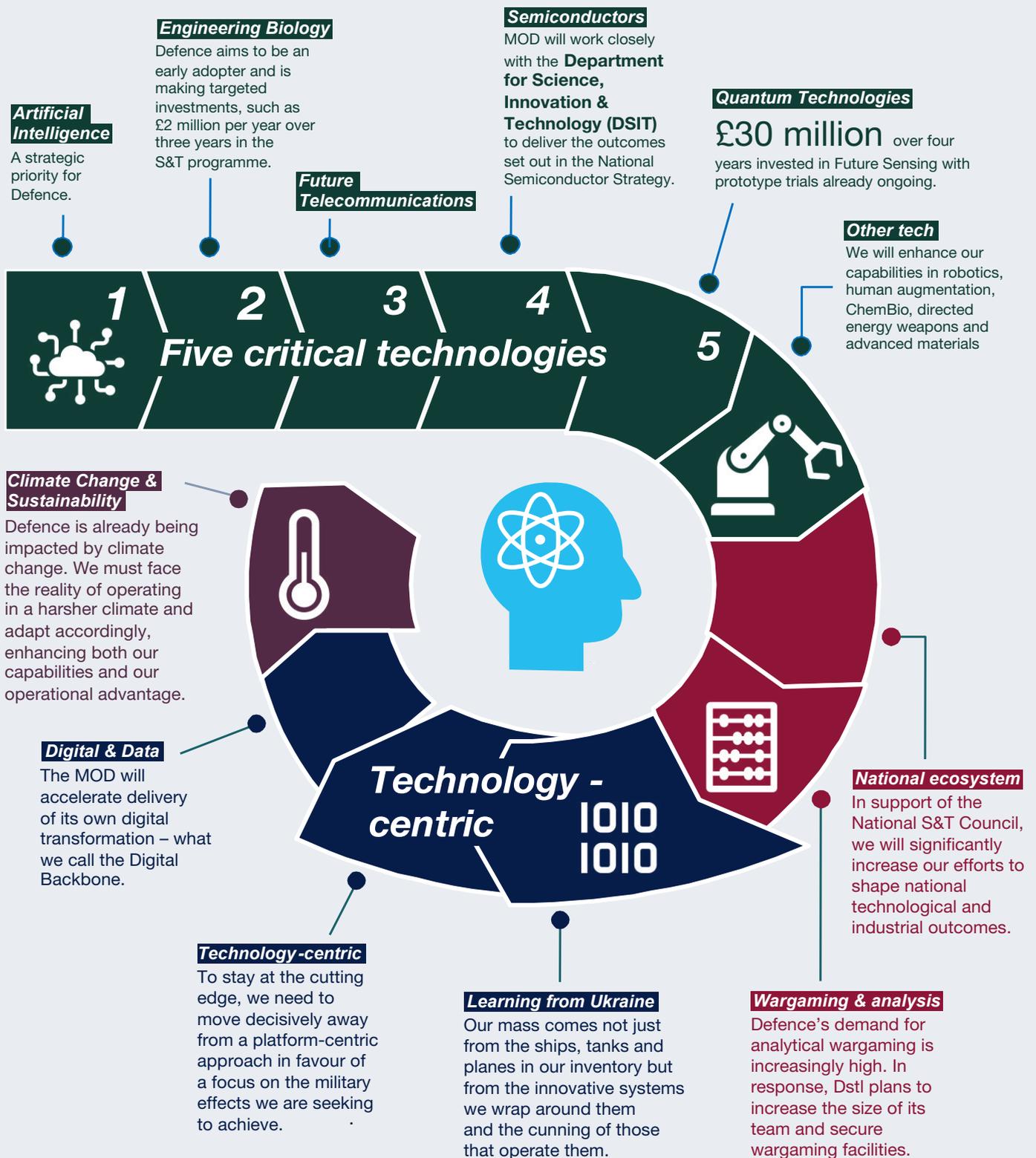
(b) Engineering Biology. Taking synthetic biology concepts and translating them into real-world solutions presents tremendous opportunities for Defence, including applications for future military capabilities. We are therefore making targeted investments, such as £2 million per year over three years in the S&T programme, to ensure that Defence is an early adopter. This includes £12.5 million on Engineering Biology applications of biofuels for military aviation.

(c) Future Telecommunications. Advanced electrical engineering is a priority S&T capability for MOD, and we retain a strong interest in the delivery of effective and secure national digital infrastructure. We will remain closely engaged with other Government and national security departments to support NSTC goals.

(d) Semiconductors. Semiconductors are a foundational technology, critical to our national prosperity and security. Defence-specific semiconductor technologies are particularly critical to sensing, imaging, weapons, countermeasures, and communications applications. Defence, as a major consumer of semiconductors with market-shaping procurement power, will work closely with the Department for Science, Innovation & Technology (DSIT) to deliver the outcomes set out in the National Semiconductor Strategy.

(e) Quantum Technologies. In 2022, Defence procured a quantum computer from British quantum computer developer ORCA Computing to develop future data processing capabilities. We will remain at the forefront of the quantum computing revolution, challenging ourselves to be

How we will transform the Force through science, innovation and technology



amongst the first militaries to see, and harness, its potential in the battlespace. Alongside our interest in quantum computing, we aspire to be early adopters of quantum sensing, investing £30 million over four years in Future Sensing and already trialling prototypes on MOD platforms. Defence has therefore already signalled to industry that we are seeking a role in building the national quantum sensing ecosystem.

5. In addition, we will enhance our capabilities in fields such as **robotics, human augmentation, ChemBio, directed energy weapons and advanced materials** which will be critical to the delivery of military capability and national security tasks.

6. Accordingly, we will reorganise our R&D, S&T and innovation structures to create a single joined-up system, reducing bureaucracy, increasing our ability to push S&T faster and more effectively into capability, and developing a new integrated science, innovation and technology strategy. As part of this, we will develop a new system for technology management, including a more robust system integration capability to assure our ability to access, integrate and use cutting-edge technologies, and a stronger approach to generating and modelling options for the conversion of innovative ideas and technologies into capability. We will establish a technology feasibility and deliverability scrutiny function, to give greater assurance that we can deliver our most ambitious programmes.

7. We will work more closely with **allies and partners** such as the US, Australia, France, Germany, Japan and Italy to develop cutting-edge capabilities. We will seize the

opportunities presented by the creation of **NATO's Defence Innovation Accelerator for the North Atlantic (DIANA)** – with its European headquarters in London, twinned with a second in Tallinn – to improve the collective capabilities of the whole Alliance. Through better understanding our respective R&D priorities, science and technology (S&T) capabilities, and industrial bases, we will be able to exploit 'best in class' capabilities as well as nurturing sovereign strengths.

Building a national ecosystem

8. In support of the National S&T Council, we will significantly increase our efforts to **shape national technological and industrial outcomes:** our national prosperity, a resilient technological and industrial base, a sustained supply chain, and our military capability, are all mutually reinforcing. We will engage extensively with national initiatives (including on AI, Quantum, Engineering Biology and Semiconductors programmes), contributing a range of Defence levers in support of DSIT and other departments.

9. We will **strengthen our engagement with, and increase our investment in, the UK's world-class university sector and industrial base.** We already have strong foundations, and we have strengthened this engagement in recent years. In 2021/22 Dstl spent £354 million on extra-mural research through a diverse supplier base of industrial and academic partners; Dstl estimates that up to 10,000 jobs are supported by the programme funding that it puts out to such partners. We have opened a new Dstl hub in Newcastle to help spread Dstl's geographic reach and harness the brilliant minds of the

scientists, engineers and academics to develop cutting edge data science and AI to support our national security. Dstl is investigating opportunities for further S&T hubs around the UK to access new suppliers and alternative recruitment opportunities.

10. Dstl's close relationship with industry is already developing game-changing



Black Hornet 3 nano drone providing covert situational awareness

technologies. For example, in collaboration with a group of industry partners known as the Dragonfire consortium, Dstl has demonstrated a working prototype laser system against a drone. They integrated a trial weapon system with advanced command and control, able to generate 50kW of power in a laser, and target it with ultra-precise accuracy and stability. The test-firing in November 2022 included a direct hit against a tethered drone 3.5km away. When further developed and deployed, this system will give the UK Armed Forces the capability to neutralise targets without the need for ammunition.

11. We will build on these foundations to **nurture a genuinely collaborative ecosystem with the aspiration to create one system for Defence S&T excellence – Government, industry and academia.**

With wider Government, we will invest in an assured, resilient, high-tech industrial base and the supply chains that we need. We will particularly nurture and invest in those sectors where military requirements likely exceed near-term civil demand, like quantum sensing, or where there is an imperative for Defence to be at the forefront, such as advanced materials, cutting-edge space technologies or cyber research. We will do so by co-creating solutions with industry; acting as a 'first adopter', pulling civilian tech through into military systems, and teaming with the Department for Business and Trade to maximise the export potential.

12. Under the direction of the MOD's Chief Scientific Adviser, Dstl will enhance its external engagement, developing new strategic partnerships with key organisations. We will build a **trusted community of interest** with whom we will share more information about our research priorities and interests, and our

understanding of key technology-driven risks and threats – bringing Defence Intelligence more fully into our approach. We will work with wider Government and institutions to enhance the security of our research base, helping to strike the right balance between the openness required for academic excellence, innovation and prosperity on the one hand, and preserving national advantage through the security of most advanced research on the other.

13. We will develop an **ambitious new approach to the exploitation of intellectual property (IP)** generated by Defence S&T and other innovators, developing the Government’s existing vehicle for spinning out IP, Ploughshare Innovations Limited, and promoting larger-scale commercialisation – to accelerate military capability delivery (the journey from prototype to mass produced and in the hands of troops) as well as tech sector growth and job creation.

14. We will involve industry – including the existing Defence primes, non-traditional primes, and small and medium-sized enterprises – much more closely in our force design and capability development processes. Through doing this, we will bring more focus to our innovation ecosystem, and promote more rapid pull-through and exploitation of the cutting-edge technologies that are being created and **close the gap between what industry develops and what we require.**

15. We recognise the risk of vulnerabilities in global supply chains and the additional benefits to national resilience, security and prosperity that could arise from an approach that maximises the use of ‘home-grown’ technology. We will therefore develop **options for more interventionist approaches**

required to secure sovereign capabilities and accelerate novel military technologies. We will also explore options to build our future capability more deliberately around **national strengths in S&T**, while preserving an approach that is still fundamentally challenge-driven. In doing so, we will play a more substantive role in **sustaining and developing the health of our R&D ecosystem and S&T industrial base.**

Preparing for the future through wargaming and analysis

16. Defence’s demand for analytical wargaming is increasingly high. It helps us constantly identify options to deliver better capability, insert new technology, and optimise the way we operate. In order to be able to counter rapidly changing threats cost-effectively, force variation and force development wargaming and analysis must routinely be part of the approach.

17. Dstl plans to increase the size of its team and secure wargaming facilities to meet this demand, as well as working with industry to develop additional capability. The building blocks of this capability are: people with the right knowledge, skills and experience; tools, including models and simulations; infrastructure, both physical and IT; and reliable, accurate, curated data to feed the models.

18. Our wargaming and analysis, combined with horizon-scanning technology, has supported many of the conclusions of DCP23, indicating that we will need to reprioritise to create the headroom to innovate to counter

future threats and provide mass effects; invest in autonomous vehicles and systems, and novel weapons – like directed energy and hypersonics; connect command and control with sensors, so our forces are joined up and function as a system with full situational awareness; ensure we are putting the required investment into key enablers to ensure that our forces are more capable, deployable and sustainable; and change the way we operate in order to get the best from these new technologies and capabilities.

Learning from the centrality of science and technology in our support of Ukraine

19. Analysis, including wargaming, will continue to be a key tool in developing new tactics and ways of operating. Indeed, we've seen the power of the most sophisticated wargaming models over the last fifteen months as the UK, alongside other donors, has played a leading role in wargaming the various options for the Ukrainian Armed Forces as they have planned their operations. These technologies and methods will need to become an ever more integral part of the way the UK military both develops our force design and capability, as well as the way we plan our operations.

20. Amongst many more sensitive contributions, Dstl used its depth of scientific knowledge on camouflage, concealment and deception techniques to provide novel and innovative solutions to improve the survivability of the M270 Multi-Launch Rocket System (MLRS) gifted by the UK. Using its extensive materials expertise, Dstl developed bespoke and readily available armour

protection solutions for the Challenger 2 main battle tanks, to provide additional protection from specific Russian threats. And Dstl technical expertise enabled the Ukrainian Armed Forces to mount and integrate the UK-gifted Starstreak short-range air-defence system on to a number of Ukrainian armoured fighting vehicles.

21. Battle-winning advantage has not just been achieved by expensive and exquisite capabilities. It can also be delivered by judiciously **combining the truly high-tech with the low-cost**, the off-the-shelf, the inventive, and the cheap – where these can be deployed rapidly to solve an operational challenge: the £100 solution defeating the £100 million threat. As well as exploiting the most cutting-edge science and technology, Dstl has also identified highly innovative ways of using a variety of materials that are readily available in Ukraine – such as roofing insulation – that can be combined to achieve unique battle-winning effects against Russian capabilities that have cost hundreds of millions of pounds to develop.

22. This is not about adding a few good ideas alongside our conventional capabilities nor doing Defence on the cheap. To prepare for the battlespace of the future and sustain strategic advantage, we must embrace technological change as we transform the force but also not miss the opportunity to use the inexpensive and low-tech to deceive, disrupt and even defeat the technology of our adversaries. **Our mass comes not just from the ships, tanks and planes in our inventory but from the innovative systems we wrap around them and the cunning of those that operate them.**

From Platform-centric to Technology-centric

23. We must therefore think differently about the Armed Forces themselves. To stay at the cutting edge, we need to move decisively away from a platform-centric approach in favour of a focus on the military effects we are seeking to achieve. Through a **technology-centric approach** we will achieve an acceleration in battlefield decision making, greater mass, increased productivity in the force and, most importantly, significantly more lethality.

24. In those areas where we do continue to require platforms, we will increasingly procure based on a **clear technology strategy**, driving more innovative and future-proofed solutions. We will prioritise the ability to upgrade and evolve through-life rather than see platforms that were highly integrated at the point of design becoming technologically obsolete whilst still relatively new from an automotive perspective. We will typically achieve this through open architectures, rapid software updates, and hardware modularity. Across major programmes, we will ensure much stronger technological feasibility and deliverability assessments within our scrutiny and approvals processes.

25. As we develop the future force, amongst many other technologies, **quantum** sensors will revolutionise our intelligence-gathering capabilities; **advanced materials** with new physical properties will open fresh possibilities for the design and build of our systems; and directed energy weapons such as **high-power lasers** will form the basis of capabilities that deliver protection against new threats like drone swarms. As technology

becomes more sophisticated, we also need to think about our people; **human augmentation technologies** will help them overcome the environment and the adversary. All these capabilities will be delivered safely, ethically, and responsibly, in line with the values of the society we serve.

26. Autonomous vehicles will increasingly perform a variety of functions, from last-mile resupply and logistics, to uncrewed wingmen flying as part of a system around our combat jets. Small cheap drones will increase our intelligence coverage and provide new options for delivering effects. **Smart networks** and sensors will feed sophisticated decision-support software, enabling faster decision-making. Software – not least in its power to make old technology new – will keep our capabilities at the cutting edge, giving us a decisive edge in the battlespace of the future.

27. We will look to the future, investing in and exploiting **emerging technologies**, including through advanced Research and Development (R&D), horizon scanning and ongoing exploration and exploitation of



'generation after next' capabilities. Crucially, our strategic advantage will not just come from new ideas, but from the speed at which we push technology through our system – inventing, prototyping, delivering and scaling new capabilities. We will regard our underlying S&T capabilities and the R&D system which delivers more rapid solutions as an important Defence capability in its own right and place it right at the heart of the Defence enterprise.

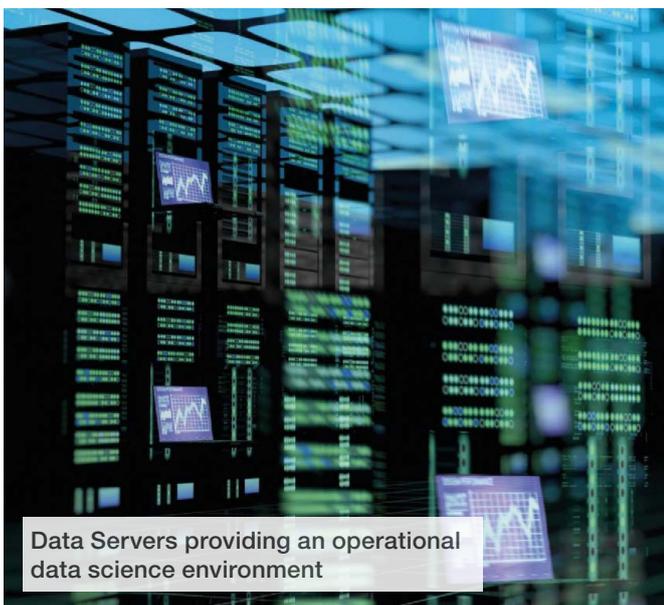
The full exploitation of Digital and Data

28. Over the last year, the Armed Forces of Ukraine have shown the game-changing impact of the most advanced intelligence, surveillance and targeting software ever deployed. We have witnessed how communications infrastructure, digitisation of data, and increasing automation and autonomy are vital for data security,

information operations, communications, targeting, interoperability, and lethality. The war in Ukraine has also given us a stark reminder of the need **to adapt rapidly and innovate constantly** in war, whether by creating new capabilities or adapting existing ones. The dynamic combination of new capabilities, growing interconnectedness, and an expanding data environment calls for a **digital approach at the heart of defence and deterrence**.

29. Recognising that data-centricity and digital agility are increasingly important elements of our deterrence posture, we will reshape policy, structures, and skills to exploit the benefits of rapid digital change. This represents a fundamental shift in thinking, whereby data and digital technologies are no longer just 'enablers' but the cornerstone of our approach to deterrence. Data-driven capabilities such as analysis, automation and autonomy will deliver exponential gains in mass, speed and precision, with their compound benefits being increased lethality, mobility, and sustainability. They also promise significant productivity gains; generative AI tools alone will enable faster delivery of tasks from the most mundane, like drafting correspondence, to the mission critical production of code to update vital battlefield software.

30. We will therefore see digital capabilities as a transformative component of the defence enterprise and will invest in them immediately in order to become a truly digitised force with data exploitation at its heart, keeping pace with the rapid rate of technological change. In so doing, we will also work closely with Allies across NATO to enhance our interoperability and the collective capability of the Alliance. The power of digital technologies and data will strengthen our



Data Servers providing an operational data science environment

deterrence, our resilience, *and* our national prosperity. Creating and exploiting new digital technologies, upskilling our people, and

working as a single enterprise with industry, will underpin our whole mission: both protecting our nation and helping it prosper.

Implementing the Defence AI Strategy

The Defence AI Strategy (published in June 2022) highlighted AI's enormous potential to enhance capability, increase the quality of decision-making and tempo of operations, and improve the speed and efficiency of business processes and support functions. Remarkable recent developments such as the rapid breakthrough of Large Language Models (LLM) reinforce the Strategy's key message: a radical upheaval is underway and AI-related strategic competition is intensifying; therefore, our response must be rapid, ambitious, and comprehensive.

Sudden advances in generative AI have also heightened concerns about AI-related risks. We remain committed to being safe and responsible in our development and use of AI, and are establishing the frameworks and processes needed to assure responsible and ethical outcomes. We also regard the safe and responsible development and use of AI globally as a strategic priority. In conjunction with the FCDO, therefore, we will continue to be a strong, proactive advocate and thought-leader, building consensus, norms and frameworks.

Defence is making good progress towards being an 'AI Ready' organisation. Our Defence AI Centre (DAIC) is fully operational and offers the opportunity to exploit the rapid advancement in technology for campaign benefit. We have also established an Army AI Centre.

We have an extensive set of AI projects and exploitation roadmaps in development. But we must go further and faster:

- We will set AI Strategy implementation as a key priority, recognising overall success in AI adoption as a strategic end in itself.
- We will set ambitious targets for 'AI Readiness' by 2025 across Defence. We will accelerate delivery of critical enablers such as talent & skills, commercial, digital and data.
- We continue to recognise the vital importance of working with wider government, industry, academia and international partners. We stand ready to collaborate closely with the newly-announced Foundation Models Taskforce as it develops.



31. The MOD will **accelerate delivery of its own digital transformation** – what we call the Digital Backbone – including by investing in a classified version of the cloud. We have already delivered the early stages of digital modernisation: evolving the MOD communications systems and cloud architecture to enable game-changing data-led analysis and decision-making across Defence. We have set up the Digital Foundry, a grouping of digital teams within Defence to pioneer new ways to exploit data, harness AI, and share and scale new ideas. We have also established the Digital Exploitation for Defence (DX4D) programme to provide a guiding light for how we accelerate the use of digital technology to be more effective in both the battlespace and the business space. We will further invest in upgrading our systems and developing tools so that we can **maximise the use of our data** in support of our decision-making. We know that it is no longer optional: **high-quality, accessible data is a critical component of our fighting power.**

Climate Change and Sustainability

32. Defence is already being impacted by **climate change**. We must face the reality of operating in a harsher climate and adapt accordingly, enhancing both our capabilities and our operational advantage. Defence is also committed to playing its part in meeting the Government's ambitions for greater sustainability and resilience, including targets for Net Zero. These two objectives – contributing to achieving Net Zero and being more effective – are not mutually exclusive, as highlighted in Defence's recent Sustainable

Support Strategy. We will move from a model of sustaining at reach, to one which is designed for self-sustainment. In this way, environmental technologies will give us the means for a revolution in how we operate and fight.

33. This is only the start of a shift towards a sustainable mindset. Climate change will impact how we operate, who we operate with, and how Defence functions. We have begun to show how Defence can harness innovation to deliver this ambition. The RAF are leading the way with the first **Sustainable Aviation Fuel (SAF)**: in a ground-breaking trial flight in November 2022, a Voyager flew on 100% SAF; and in another global first, the RAF has since conducted air-to-air refuelling of Typhoon using a blend of SAF and traditional fuel. The Army has initiated a large-scale **solar farm programme** to reduce its emissions, create efficiencies and ensure future energy resilience. The Royal Navy's cutting-edge **catalytic systems** are also reducing nitrous oxide emissions from our new maritime patrol vessels. Furthermore, the buildings on the defence estate are being designed to be more flexible, efficient, more resilient to ensure we are adapting to, and mitigating the impact of, climate change.

Chapter 3:

Our Relationship with Industry

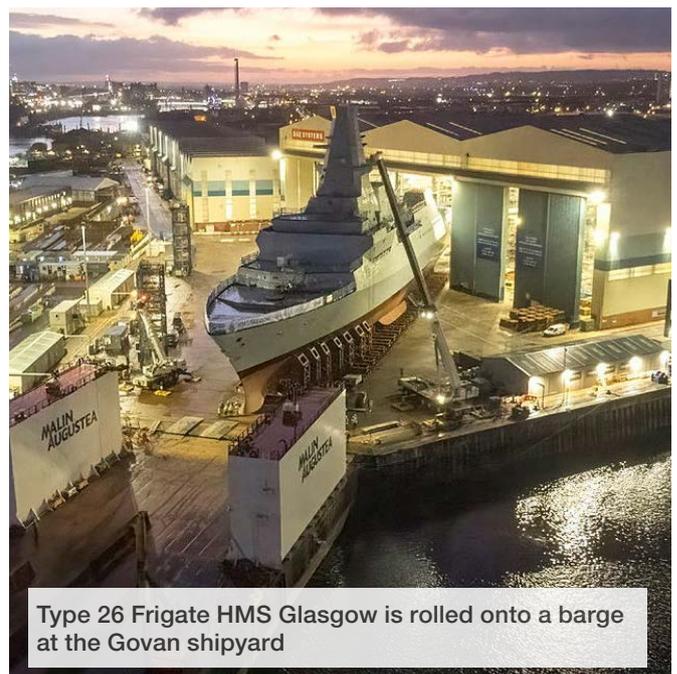
1. There are three key lessons reinforced by the war in Ukraine that we must urgently apply to the way we deliver capability to our Armed Forces. Firstly, and most importantly, the pace of innovation across the battlespace is accelerating and cannot credibly be met through conventional – often decades-long – acquisition programmes and platform upgrades. As a rule, we must buy simpler platforms more quickly and design into them the capacity to upgrade at speed – and not just with the original prime contractor. Secondly, we must partner with industry, exploring together advances in technology and what they mean for UK defence capability, being willing to share risk and recognising the importance of our defence industrial base in our national security. Thirdly, time matters. Waiting for 100% will almost certainly take too long. We must force ourselves to accept solutions that are ‘good enough’ and that can be in the hands of our service personnel in the timeframe needed to maintain our edge over our adversaries and competitors.

2. Integration between Government and industry is fundamental to sustaining the fighting force, developing and exploiting new technologies, and producing the equipment needed at the speed of relevance. A common endeavour which places industry at the heart of the Defence Enterprise – recognising our industrial base as an essential component of our national security – will help maintain our strategic advantage: it will underpin clearer requirement-setting, more resilient supply chains, faster development and fielding of new capabilities, and a more activist approach to exports (as set out in more

detail in Chapter 6). An effective Defence Enterprise – comprising both Government and industry – and a strong national economy will be mutually reinforcing.

3. Significant progress has been made in the past two years, since the publication of the **Defence and Security Industrial Strategy (DSIS)** alongside the DCP in 2021: for example, the MOD has published its future pipeline of work through the Equipment Plan, Defence Capability Framework, Acquisition Pipelines, and sector strategies such as the Land Industrial Strategy and Defence Space Strategy. We must now deliver on the implementation of these strategies.

4. Progress over the last two years in national shipbuilding is a prime example of the successful adaptation of our approach.



Type 26 Frigate HMS Glasgow is rolled onto a barge at the Govan shipyard

The **National Shipbuilding Strategy Refresh** set out the Government and industry’s vision for a globally successful, innovative and sustainable UK shipbuilding enterprise. As one of the major customers of the UK shipbuilding enterprise, Defence has a pivotal role to play in supporting the Defence Secretary, in his role as Shipbuilding Tsar, to achieve this vision. The National Shipbuilding Office wants to see sustainable growth within the UK shipbuilding sector, built upon a mix of Government, commercial and export orders. In the National Shipbuilding Strategy Refresh, we committed to maintaining a continuous shipbuilding pipeline. This will provide a baseline of stability for the UK’s naval shipbuilding industry, which remains a strategic asset for ensuring the operational independence of the Royal Navy.

5. However, we need to further transform our relationship with industry – **forging a new alliance** – to create an environment that generates a shared sense of **national endeavour**. Industry is, and must feel, part of the Defence Enterprise. This must also be visible: being in perfect lockstep with a resilient industrial base will **underpin our credibility as a fighting force, demonstrate our dependability as an ally, and deter our adversaries**. An energised industrial base working more closely with the MOD will also increase the UK’s **national resilience** and ability to absorb strategic shocks. Our relationship with industry will not just be with the traditional primes: we will also be open and welcoming for **small- and medium-sized enterprises (SMEs)** and those outside of the Defence sector to better collaborate with the MOD.



Defence and Industry: 'A New Alliance'

6. We will **engage much earlier in strategic conversations** with industry. We will move beyond the traditional customer-supplier relationship, developing **long-term strategic alignment** that not only delivers the capabilities we require now, but binds the MOD and industry into a **joint endeavour** that can sustain the nation in times of conflict. This will require a collective effort that combines the expertise of the whole Defence enterprise: military, civilian, and industrial. This new alliance will require senior Defence leaders to take the time to develop enduring relationships with key industry executives, deliberately and regularly sharing insights and information. We will adopt an inclusive and transparent approach which overcomes commercial sensitivities when working both with Defence industrial sector and adjacent commercial industries. We will be clear about our planning assumptions and our evolving requirements. And through this collaborative approach, we will transparently share risk, with a clear focus on strategic outcomes.

7. An alliance built on transparency and trust will mean that together we can better understand long-term strategic challenges and identify solutions to issues such as the availability of **critical skills, diversification and resilience within the supply chain, and productivity**.

8. We will involve industry at all levels earlier in the military capability development processes. We will address issues related to levels of security classification so that industrial partners can better understand the

threats we are seeking to address and the problems we are seeking to solve. We will continue to **improve visibility** of the MOD's long-term planning to inform industry's future plans and investment. We will work to ensure we have a collaborative technical environment, operating at secret levels of classification, to share information with industry in a much more dynamic way.

9. We will be open to harnessing the best ideas, from wherever they come. Strategic suppliers are not measured by their size. We will identify the sub-contractors and **SMEs** that are of strategic importance to Defence – including those based overseas – and treat them as such. By involving industry systematically, including through the Defence Suppliers Forum, we will make it easier for UK-based companies to access Defence earlier, and in doing so broaden the base of SMEs and technology businesses that work with Defence. We recognise the strength of SMEs in disruptive creativity and innovation: we will therefore launch a new supplier development programme that recognises the importance of SMEs more generally and that enables more of them to participate in MOD projects.

10. We will work with industry and the City to ensure that **funding markets** understand more clearly the critical need for our world-class UK suppliers to gain access to third-party revenue and financial services so that defence suppliers are not disadvantaged. This approach will help ensure that the UK remains a base of choice for innovative and trusted suppliers.

11. We will also **work more closely with the private equity and venture capital community**, building on our existing

relationships through the National Security Strategic Investment Fund (NSSIF) and nascent NATO Innovation Fund (NIF) to attract private investment and grow new national security and defence companies. We will also work closely with HM Treasury to set out the Government's position that there is no inherent conflict between ESG (environment, social and governance) financial principles and investment in defence and security companies. The Government is clear that private investment in the UK defence industry is both essential to our national security and can also have economic, environmental and social benefits. Misapplication of ESG principles could compromise that important private investment.

Spiral development

12. Increasing the pace of innovation across the battlespace is not just about systems and processes; it is also about **mindset**. Part of this is about underscoring that capability is never “done”; it must constantly **adapt to the changing environment** in which we operate. Instead of defining the exact force structure we want, or the precise capabilities we need, we need instead to **build our ability to adapt rapidly**. Our responsiveness to changes in technology and threat will dictate whether we maintain a strategic advantage: we must therefore rapidly incorporate feedback from end-users and exploit emerging technology effectively. We need to **build on existing capability, incrementally increasing its effect**.

13. We will reform our acquisition paradigm from one focused on specifying exact requirements to one that acknowledges the

importance of iterative development. To achieve this, we will build greater agility into our processes for prioritising and allocating resources. This means **building in the financial headroom** to respond to changing needs, enabling us to **iteratively develop – or ‘spiral’ – our capabilities**. We will increasingly declare ceiling costs to industry for new capabilities – ensuring money is available to increase defence outputs today, while capacity is kept in our budgets to incrementally develop and exploit new innovative solutions.

14. We will also build on our positive experiences of Type 31 and Boxer acquisition by seeking to acquire core platforms that are modular by design, making spiral development and adaptation simpler and quicker. We will work with our allies and industrial base to ensure that we do not get locked into closed systems – especially avoiding vendor lock-in – that act as a barrier to spiral insertion of new capabilities and functionalities: we must ensure that we can update our capabilities in line with the pace of the threat environment. Our contracting approaches will also adapt to support this way of working.

Robust and Resilient Supply Chains

15. We have a funded programme underway to replenish and augment our stockpiles of munitions, spares, and operational supplies. But as well as increasing current stocks, we must have an assured way of replenishing rapidly when needed in times of conflict, ramping up activity to meet the operational demand. Our supply chains need to be resilient to disruption, to ensure the UK has assured access to key materials,

components, and critical technology. We will expand and exploit the functionality of our Supply Chain Resilience tools to understand where the fragilities in our supply chains are, and provide clearer direction to industry.

16. With industry, we will kickstart an honest **assessment of industrial capability, capacity, and sustainment**. Within Defence, we will be clear about our **sovereign requirements** – in particular for munitions, complex weapons, and uncrewed systems – through multi-year commitments if possible, in order to help provide a more predictable demand signal to industry. At the earliest possible stage in the project life cycle, we will help identify where there are similar requirements in civilian and export markets.

17. We will explore ways to incentivise industry to **increase productivity through investment in digitisation, automation and skills**. Specifically, we will work with industry to harness the advantage of digitising every part of the acquisition system, including procurement, design, test and evaluation, manufacture and in-service support. There will at times be a requirement for generation of mass, when industry's manufacturing capacity and in-service support will be particularly important. In such cases, we will programme for continuous capability development and a pipeline approach to acquisition that maintains production lines for longer, and avoids skills fade.

18. There will also be cases where we have an essential national security requirement for certain industrial capabilities to be available **'onshore'** within the UK. Where this is the case, we will ensure that they are maintained, potentially through a combination of MOD orders, exports and civil demand. This will

also enhance domestic resilience. However, many defence supply chains are global in nature, and so we will also work with our closest international partners (NATO, EU, Five Eyes and the G7) to improve our supply chains' collective resilience, including through **'friendshoring'**. We will continue to use the National Technology Industrial Base to create opportunities for UK industry to work more effectively with industrial bases across our Five Eyes partners.

19. More widely, we will need to **work ever more closely with international partners** to increase sustainable global capacity and speed of procurement: coordinating our demands of industry; improving standardisation, interoperability and interchangeability; prioritising open architectures, aligning technical requirements and exploring mutual recognition of accreditation; and addressing other barriers to international industrial cooperation. Having led the way on the creation of the initiative, the MOD supports the development of NATO's Defence Production Action Plan (DPAP), which will increase allied standardisation and interoperability in key munitions, and will reduce barriers to industrial cooperation between Allies. We will also seek international agreements to host cloud-based collaborative environments that enable the MOD to work more seamlessly with UK industry, partner governments, and industries in other nations, at higher security classifications.

20. Our experience of COVID demonstrated the strength of having an adaptable industrial base – with factories able to shift production lines to meet new and emerging demands. Given the evolving security environment, we will now explore options that incentivise industrial partners to **prioritise national security needs** (defence, energy, homeland security and

emergency preparedness) ahead of commercial requests in their production planning. Such flexibility would make a significant difference in a time of national emergency.

Acquisition Reform

21. To outmatch the threats that we face today, and may face in the future, we need radically to reform our approach to acquisition, in a way that complements our new alliance with industry. The experience of Ukraine has reminded us that accepting 80% can deliver effective and robust capability into the hands of the users today. Waiting for 100% – the exquisite solution – may mean losing strategic advantage. We must therefore drive greater **pace and agility** into how we acquire military capability for the front line, including by **prioritising timely delivery over perfection**. We have demonstrated through our support to Ukraine that we can acquire and deliver capabilities at incredible speed when funding and risk appetite are aligned

with the objectives of senior defence, industry and political leadership. To secure strategic advantage, we must scale this model more aggressively to meet Defence's needs.

22. Whilst our acquisition system must enable consistent delivery of capability to agreed parameters – of time, cost and performance – we will put **growing value on time**: driving pace is critical – even if it forces us to increase our risk tolerance elsewhere. Our ambition is to reduce radically the average time from the identification of a military need to contract placement, and from contract placement to delivery to the front-line. This has been realised recently through the Army's procurement of the Mobile Fires Platform Archer. Further, Defence is leveraging new technologies and methods of procurement to adapt at pace, with a number of Royal Navy projects – ASW Spearhead, NavyX, Fleet Solid Support and Maritime Offensive Surface Strike – receiving recognition at the recent Defence Acquisition and Project Delivery Awards for delivering complex programmes.



23. We intend to go further, and **set a maximum five-year commitment for acquisition programmes**, with a maximum three-year commitment for digital programmes. Given that the MOD procures a wide range of equipment, goods and services, we will tailor our approach to reflect the risk and complexity of each programme, ensuring that we are **proportionate in the approach** we take. For example, we recognise that some of our more exceptional programmes – those on the Government Major Projects Portfolio – will out of necessity take longer. But even with these, we will challenge teams to identify approaches that could generate useable capability faster.

24. We will **set our acquisition programmes up for success** by conducting thorough front-end planning to ensure that there is strategic alignment amongst all stakeholders around outcomes and risk appetite. Early engagement across subject matter experts, including industry, will ensure that the full range of options is considered, informed by what the market can deliver for the funding available. Where appropriate we will consider the implications for both exports and national growth. Within the MOD, we will **reinforce the role of technical experts**, including in cost estimating and science and technology, ensuring that their voices are heard in these early discussions and strengthening key aspects of assurance to identify issues early.

25. In this early engagement, we will be clear on our specific requirements, particularly relating to integration, while leaving room for the market to provide innovative solutions. For a range of capabilities, like uncrewed aerial systems (UAS) and counter-UAS, the MOD will define (and own) the operating

environment, such as the architectural design and data standardisation; in effect, declaring **'Defence kite marks'** in each case. This will enable industry to incorporate software solutions with agility and ensure integration, adapting more efficiently to meet a rapidly evolving threat. The new **Integration Design Authority** will work with allies and across the defence industrial sector to create open standards for our operating systems and protocols, as we have already demonstrated with the Land CEMA architecture and Pyramid Open Avionics architecture. Defence Equipment & Support and Strategic Command will take responsibility for ensuring industry contracts deliver against these standards and that integration into the defence 'system of systems' is demonstrated before completion of delivery into service.

26. We will **improve delivery professionalism**. Our major programmes must be led by individuals with the depth of knowledge and experience required to deliver some of the most complex projects across government. To achieve this, we will build a **cadre of professionally qualified SROs** and Programme Directors, and mandate Infrastructure and Projects Authority accreditation. We will incentivise SROs and key officials to remain in post across a programme, with full-time SROs on major projects.

27. We will take a thematic approach to capability development, moving away from the current dominant domain-centric architecture. This will force us to integrate capability by design, across domains, to meet the full breadth of an increasingly sophisticated threat. We will work with industry to develop this more thematic approach.

Chapter 4:

Productivity: Creating a Campaigning Department

1. The need to compete effectively in a more contested world means Defence must deliver more, at an accelerating pace. As budgets are finite, this can only be achieved by aggressively driving productivity across the Defence Enterprise – around the world and at home. In order to be truly competitive and to deliver even greater effect, the Department must be **strategy-led, threat-informed, outcome-focused, and data-enabled**. We will apply best-practice techniques to deliver an organisation which is **aligned, mission-focused, leaner and more productive**. We have already made material changes, including to the way our Head Office operates, and we have started to apply processes to **optimise the Defence Operating Model**.

Increasing Productivity

2. The Government recently launched a review of public sector productivity in order to drive more outputs and cost prevention across public services. Defence has a vital role to play in this drive to improve productivity, not only within Government but also across the nation, and will engage positively with that programme of work. We are already reforming the way we work to **remove organisational and bureaucratic layers** that are no longer fit for purpose and will drive towards a more productive Department. Our change in approach will ensure we generate a greater return from the important capabilities we have invested in so

that we better protect the nation and help it prosper.

3. **Effective deterrence avoids costly conflicts** and the human and economic costs they bring. **Increasing productivity in Defence is about getting more from our assets** – whether people or equipment – improving our ability to deter our adversaries and strengthen our partnerships. Putting more ships to sea, planes in air and people around the globe to operate in contested areas imposes costs on our adversaries, and ultimately – and crucially – reduce costs to ourselves.

4. Productivity is also about **minimising time when those assets are unavailable**, through better equipment support, by data exploitation, and reinforced by our new alliance with industry. This will prevent costs rising and avoid extended, unplanned periods of unavailability.

Being in more places at once

5. Risk aversion – one of the consequences of a period of relative peace and stability – makes us less agile and less competitive than we need to be. In some areas, the fear of failure, litigation or embarrassment has created a culture that ends up compounding operational risk, slowing the pace of delivery and eroding our strategic advantage. We must proactively manage our risk, rather than allowing our activity to be restricted by existing regulation and guidelines. Across both our capability development and

operations, we will take a much **more sophisticated approach to managing risk**, ensuring that we strike a sensible **balance between appropriate mitigation and seizing opportunity**. We will look to every corner of the organisation to make us more competitive and overcome institutional inertia.

6. We recognise that increasingly our people will operate in small teams all over the world, facing varying degrees of threat. At the highest end, we will continue to resource those teams with the full military enablement that their operating environment requires, and will invest in those enablers, to allow us to maintain many more concurrent points of presence, even in high threat environments. However, we also recognise that in working with partners globally, we will often be in lower threat environments, where we can, and will, **empower our people to be**

able to live and operate alongside the partner force, and to be enabled by them.

**More ready, more lethal,
more integrated**

7. The operational productivity of the force – **ensuring greater levels of lethality and readiness** – is essential given the threats we face. As well as exploiting new technology to this end, we have established a dedicated programme to **increase our operational productivity** across the enterprise, focusing on increasing the readiness of our assets. Defence is already well set, with access to some of the very best military capabilities that exist. However, our studies have shown that we can get more out of them by rebalancing investment in their availability and



Next Generation Protector RG Mk 1 UAV will offer increased flexibility, longer range and enhanced data links

sustainment. In the first wave of projects, we are focused on maximising the return on our investment in the new Type 31 frigate, our Typhoon aircraft and our Challenger 2 tanks – as well as setting ourselves up for bringing Challenger 3 into service.

8. We will explore innovative ways to increase our ability to generate the force elements required to deliver strategic effects around the world, at the right time, at the right intensity and for as long as we need to: we will remove barriers to readiness and make cross-cutting changes that target bureaucracy and inefficiency to grow availability, capability and sustainment. We will foster an **environment that instils a relentless focus on the delivery of real-world impact**, sharing examples of good practice at all levels. We will give senior individuals in each Command the specific responsibility of increasing productivity within their organisations within a tight timescale, by giving them the data, tools and empowerment they need to increase Defence outputs.

9. Across our single Services, the transformation of our workforce will continue at pace, as military strength is focussed on the frontline and niche skills, while we digitise and civilianise our headquarters functions; we must extract the maximum efficiency from technology within our administration. Transformation is radically **reshaping our training environment** to meet the future. Training will be less reliant on physical estate and more virtual, tailored to the needs of an individual – not one size fits all. We will continue to review the Armed Forces' respective training structures, ensuring that the most talented personnel coming up the ranks have the opportunity to accelerate their

path to operating on the frontline, supported by highly skilled technicians.

10. Redefining how Defence integrates and understands value is central to increasing our productivity and matching the pace of change. The **Integration Design Authority (IDA)** will champion the fact that value is not derived solely from *physical* characteristics; rather value comes from the degree to which concepts and capabilities are *integrated* and how *adaptable* they are to change. This will drive Defence towards a software, not hardware-defined approach; and to valuing systems-of-systems above platforms. The principal role of the IDA will be to optimise UK Defence integration: it will do so by taking a Portfolio-level view of Defence on behalf of Head Office and beginning to offer Integration as a Service for Defence, providing the reference framework for Defence to make informed decisions regarding capability choices.

11. The Defence Support Functional Plan (DSFP) is also driving transformation across Defence's enablers. The DSFP identifies, synchronises and governs the principal activities required across the Defence Support Enterprise to deliver Support Advantage as a vital enabler of Operational Advantage for our Armed Forces. The DSFP focuses on improvements to availability, resilience, modernisation, and data-led decision making.

Embracing digital, automation and information

12. We will seek to harness AI and digital capabilities to replace repetitive tasks across Defence. We will increase investment in

AI-enabled military capability, prioritising AI options in Force Development and ‘balance of investment’ exercises. We will identify ‘quick win’ capability enhancements and new dedicated AI options within major programmes. We will also seek **opportunities for greater efficiency and effectiveness in ‘back office’ functions** through AI. We will **increase the use of digitisation, technology and data in order to streamline processes**, unshackle our people, and speed up decision-making.

13. We will put **exploitation of data** at the heart of our approach, developing a coherent digital architecture across the defence enterprise to integrate all the levers at our disposal. We will operate more dynamically within the international **information environment** and improve the coordination of Defence **strategic communications** activities. We will make more sophisticated use of information to explain our approach, to build coalitions, to change the behaviours of our adversaries, and to influence a wide range of audiences.

Working with the regulatory authorities

14. We will also need to work differently to maximise the opportunities presented by novel and emerging technologies. To underpin the necessary increase in experimentation, we will bring our **regulators** into the innovation process much earlier. Allowing the regulators to help shape new capabilities will mean that they are assured by design and introduced into service more quickly.

15. We will work with the relevant regulatory authorities – for example **the Military Aviation Authority in relation to drone technology** – to enable us to test, experiment, and innovate within legal bounds, ensuring appropriately-owned levels of risk and accountability. We will also involve the Defence Safety Authority at early stages of the capability development process in order to unlock safe and environmentally responsible capability.

Infrastructure

16. We will review the way we use our wider infrastructure, with dispersal, resilience and physical hardening – as well as effective cyber security – central to any future estate plan. We will develop a detailed infrastructure plan that will propose an estate that is focused on both people and military capability, more resilient, better aligned with the future operating environment, and that connects our domestic and overseas estates. We will invest in the Defence Estate to mitigate the risk of asset failure or attack. We will also invest to ensure we have **sufficient critical assets to enable dispersal and regeneration** and will lead the NATO working group supporting the development and validation of the NATO Layered Resilience Concept (LRC). The LRC will clarify the military aspects of resilience and support NATO’s military authorities to build military resilience and support civil resilience.

17. The Defence Estate Optimisation Portfolio (DEO), our £5.1 billion main estate transformation programme covering 80 projects in the UK, is on track to deliver both accommodation and training facilities for

65,000 personnel and will also enable core capability across Defence. Specifically, under DEO, we will **increase our investment in technical infrastructure** critical to delivering our capabilities including the Future Commando Force and Carrier Strike Group; special operations; fast jet training; Future Soldier; Cyber warfare; ISTAR and Defence Intelligence. DEO will also create job opportunities across the UK supporting the Government's ambition in Levelling Up and national growth. DEO is leading change in how Defence contracts its infrastructure by creating stable work pipelines for industry contractors and speeding up delivery.

18. Continued **infrastructure investment** at Devonport will support the creation of a Submarine Deep Maintenance Centre of Excellence, creating and sustaining jobs and local prosperity. In Scotland, infrastructure development continues at RAF Lossiemouth where the E7 Wedgetail will join the Typhoon fast jet squadrons and the P-8A force as part of the UK's on-going commitment to NATO to enable a safe, secure and peaceful Arctic region, whilst also ensuring on-going economic investment in Scotland.

19. Recognising that there is no easy sanctuary from long-range precision weapons, **Agile Combat Employment (ACE)** will use agile and adaptable basing options to protect assets, increase survivability and grow operational resilience. ACE will enable the RAF to generate air power at a time and place that enables political choice.

20. But we must go further. We will develop a detailed infrastructure plan that will propose an estate that is focused on both people and military capability, resilient to threat, underpinned, for the first time, by an

evidence-based twenty-year infrastructure plan, aligned with the future operating environment, and linking both domestic and overseas estates.

A leaner, more effective organisation

21. We need to shift our organisational culture away from the peace-time mentality allowed by the post-Cold War dividend. We must live and operate as we would fight. The way we do our business must foster collaboration and deliberately break down siloes. We need to empower individuals, within the parameters of clear overall direction and supported by robust accountability, rather than pushing decisions up the chain. We want our staff to be creative and to seize opportunities where they arise. Our structures, processes, and ways of working must give us an edge, not hold us back. We need to increase our productivity and our outputs, and identify innovative, creative solutions that enable us to have greater impact in the world. This requires a shift in our culture and ethos, encouraging greater empowerment and better balancing of risk and reward. It also requires organisational change – the creation of a Campaigning Department.

22. Much has changed in the decade since Lord Levene published his Defence Reform recommendations. We need to be more dynamic in how we respond to the evolving threat environment – and we also need to better integrate our activities and capabilities in support of our campaigning approach. Therefore, we have already launched the process of redesigning the overall Defence

Operating Model, which is considering the **appropriate future model for integrated delivery**. This redesign is using techniques well proven to be effective in multiple industry sectors. We are involving a wide cross-section of colleagues across the Defence Enterprise to ensure we have a deep understanding of the practical realities. The process will focus on deliberately reducing the number of hand-offs and associated bureaucracy, and replace multiple superficial assurance checks with fewer that are more in depth.

23. Over the next twelve to eighteen months, we will achieve an effective balance between centralised direction and the empowerment and freedoms that enable all parts of Defence to operate with necessary speed and agility, ensuring our Department is best organised for delivery. We will also pursue greater productivity across the Department through the digitisation of our HR processes and upskilling of talent (as outlined in Chapter 1).

24. Part of this work will consider whether we have the right numbers of people with the right skills across the organisation, including at senior ranks and grades. We will prioritise delivering greater impact in the real world by ensuring our staff are more skilled and capable, and by better supporting and empowering them.

Building on the momentum of Head Office Reform

25. In the last two years, we have made significant changes that are already having an impact, reforming the Head Office so that it is both an effective strategic military

headquarters and a high-performing Department of State. We will continue to deliver an ambitious set of reforms across the organisation, accelerating the progress we have made since DCP21.

26. Since the invasion of Ukraine, we have strengthened the **Defence Intelligence** organisation. It pioneered the rapid declassification of intelligence assessment, releasing it into the public domain through traditional and social media channels and seizing the opportunity to publicly discredit Russian disinformation campaigns. We transferred leadership of the **Global Defence Network** to Strategic Command, improving coherence of our global “sense, understand and influence” function. In doing so, we also delivered an immediate uplift in classified communications capabilities in critical overseas posts, with more to follow.

27. In 2021, we established the **Secretary of State’s Office of Net Assessment and Challenge** (SONAC). SONAC has helped to ensure robust analysis and challenge is brought to the fore in decision-making, including relating to the war in Ukraine, conducted numerous red-team events across major defence strategy and policy areas, and produced a series of net assessments to help inform the Department’s longer-term thinking. SONAC has also led the process to bring external thinking into the Department to inform DCP23.

28. The establishment in 2022 of a new **Strategic Hub**, sitting at the centre of the Department, has helped the MOD to be clearer about its priorities, more articulate in its strategy and plans, and more rigorous in evaluating outcomes. It will also drive a focus on delivering our strategy, identifying and

The functions of Head Office



solving impediments to delivery, and holding the rest of the enterprise to account. As a Department, we must be responsive, adaptable, and able to act at speed – but also

to ensure our actions are nested within a long-term strategy that drives lasting change in the world.

29. DCP21 highlighted the need for ‘a mindset that is based on continuous campaigning, seeing all activity as part of an overall operational design’. In addition to work to develop and embed that campaigning mindset, both in the institution and in individuals, we have also established four actor-centric **campaign teams**. The teams combine policy and military expertise, have a mandate to engage across Whitehall, and report directly to Ministers as required. They are taking a data-centric approach, using digital tools to enhance integration, timely decision-making and evaluation. As outlined in Chapter 6, we will **embed campaigning as the way Defence delivers its effect**, continue to build the campaign teams’ capabilities, and consider where best they should be located in order to be able to integrate all the levers of defence and wider governmental power.

30. The reforms undertaken in the last two years provide greater clarity over the function of the Head Office, and how its activity is coordinated and sequenced to direct and support the rest of the organisation. A modernised Head Office, clearer in its role, will be more effective in both responding to current events and in formulating and delivering long-term strategy.

31. Underpinning the effectiveness of these reforms will be a **refreshed approach to security and resilience** within the MOD. In the new threat environment, security and safety must change from being a corporate output to being an operational enabler. Resilience must change from being viewed as a ‘continuity of business’ issue, to being an operational one. Both security and resilience will therefore be embedded into our critical functions with appropriate leadership and resource.

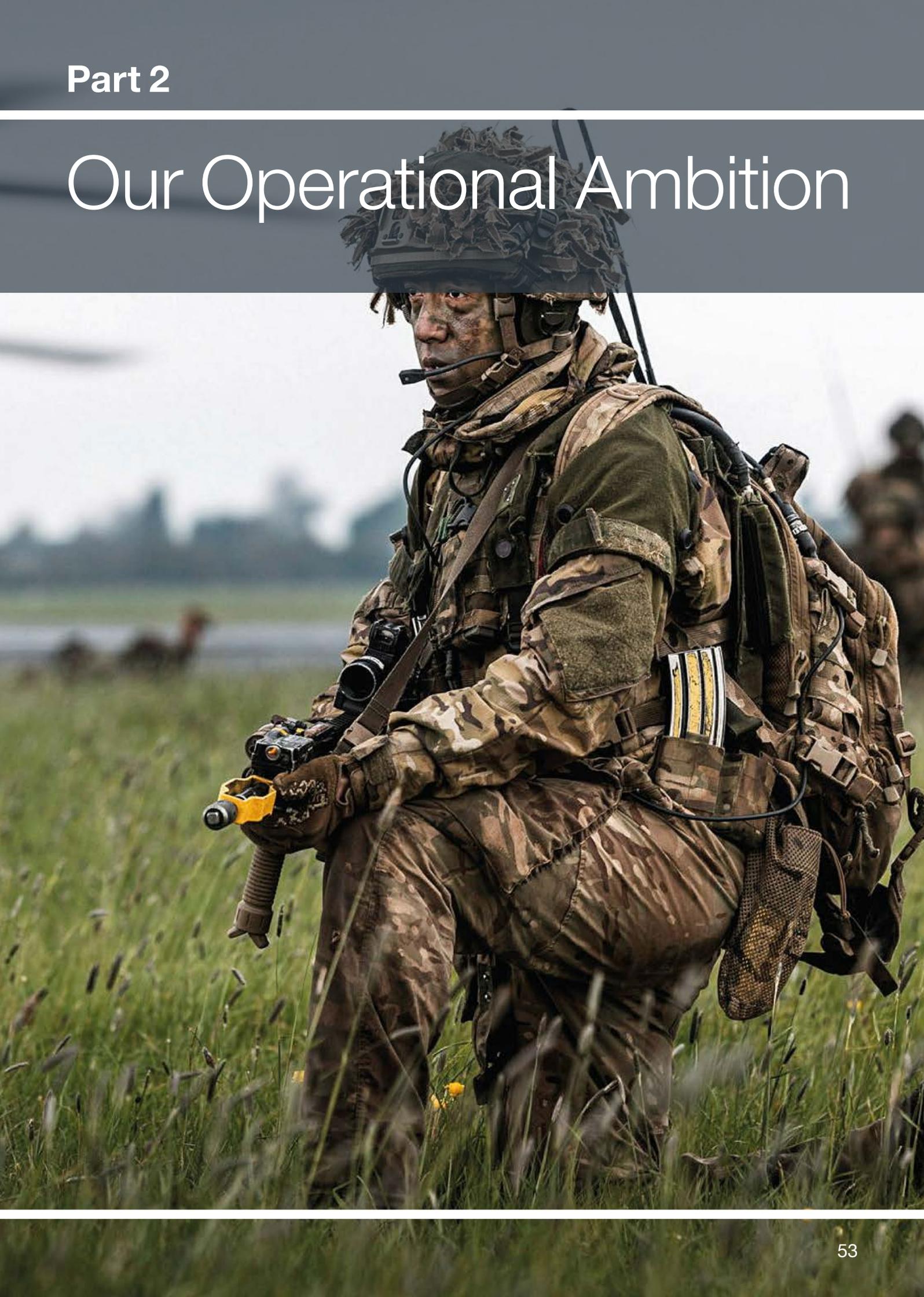


Joint Forces bound for Sudan in support of evacuations due to escalating violence



Part 2

Our Operational Ambition



Chapter 5:

Deterrence and Defence: Our Ability to Fight and Win

1. Defence's core business is to deter and defend against the threats to our security, to roll them back where necessary, and to adapt to them as they evolve. The fundamental mission of UK Defence is the protection of the UK, the Crown Dependencies, and our Overseas Territories, as well as our NATO Allies.

2. The contested security environment requires us to become expert once again in the art of deterrence: not just a concept belonging

to the Cold War, but one that we live and breathe every day. In a volatile, complex and ambiguous security environment, we must embody a fully integrated approach to deterrence and defence – including across domains, across the spectrum of competition, across government, and with allies and partners – exploiting all the levers of state power. We need to be credible at deterrence by punishment, and deterrence by denial, both at home and overseas. Our adversaries must have **no doubts about our ability and**

UK troops taking part in Exercise WINTER CAMP, Estonia



willingness to fight, and to win. Our ability to deter is therefore dependent on balanced and credible capabilities – across sea, land, air, space and cyberspace – and a clearly communicated willingness to use them in the place and at a time of our choosing.

3. The **Euro-Atlantic** region will remain our clear priority and will continue to receive more investment and attract more activity than any other region. It is our home region and UK national security, and the security of the wider region, are inextricably linked. We will therefore develop a force that is optimised to war-fight in the Euro-Atlantic and in defence of our homeland.

4. However, we cannot limit our ambitions there. Instability in, and threats emanating from, other regions around the world will have an impact on both the UK homeland and our interests globally. Our adversaries are not contained to their own regions but will compete with us everywhere for influence. Similarly, the UK's interest continues to be challenged by non-state threats like terrorism, piracy, and organised crime. **We need to be able to compete, challenge and contest threats globally. We need also to be ready to seize opportunities; this requires persistent forward presence not only in Europe but across the globe.**

An Integrated Approach to Deterrence and Defence

This approach requires us to enhance integration:

- across all Services, prioritising a joint approach from sensing to strike;
- across domains, including nuclear, conventional, electronic, cyber and space, making cross-domain integration a reality in our capability choices and our concepts of operation;
- across Government, working ever more closely with the Foreign, Commonwealth and Development Office and the Security and Intelligence Agencies in particular to bring to bear all the levers of national power, including for example through the imposition of sanctions and through countering the hostile manipulation of information;
- across the spectrum of conflict from high-intensity warfare to sub-threshold hybrid competition;
- with industry, forming a new alliance that is more proactive, responsive and resilient;
- across regional theatres, acknowledging the porosity between regions, and that state threats are not necessarily contained within their own neighbourhoods. The effectiveness of our global campaigning approach relies on the sophisticated application of all the levers of Defence – and wider Governmental – power to achieve targeted effects; and
- with allies and partners, particularly through NATO, with a strengthened focus on interoperability, including in digital and data.

Nuclear

5. As set out in the IRR, the foundational component of an integrated approach to deterrence and defence remains a **minimum credible, independent UK nuclear deterrent**, assigned to the defence of NATO. The UK's nuclear deterrent works every hour of every day to guarantee our security and that of our NATO Allies. It deters the most extreme threats to our national security and way of life and allows us to take the actions required to maintain regional and global security and stability free from the threat of nuclear coercion.

6. The erosion of arms control, disarmament and non-proliferation architecture has negatively impacted strategic stability. We now face a much **broader range of strategic risks and pathways to escalation**, driven in part by rapid developments in science and technology, and by expanding competition in the newer domains of space and cyber. These are all exacerbated by Russia's repeated violations of its treaty commitments, and the pace and scale with which China is expanding its nuclear and conventional arsenals, as well as efforts by Iran and North Korea to advance their own nuclear programmes.

7. These risks, as well as Russia's irresponsible nuclear rhetoric in the context of its illegal war against Ukraine, have underscored the need to maintain our own nuclear deterrent beyond the life of the current system to provide a credible, independent, and capable nuclear deterrent – as the ultimate guarantor of our security and that of our NATO Allies – for as long as it is needed.

8. We have therefore committed to a **one-in-two-generations programme of modernisation** of our nuclear forces, underpinned by long-term investment. In 2016, Parliament voted to renew our nuclear deterrent and replace the Vanguard Class submarines with four new Dreadnought Class submarines. The programme remains on track for the First of Class to enter service in the early 2030s. To ensure we maintain an effective deterrent throughout the commission of the Dreadnought Class, we will also **replace our existing nuclear warhead**. Both the Dreadnought Class submarines, and the UK's replacement warheads are being designed and constructed in the UK and represent some of the most advanced systems ever built. Their development employs world-leading and cutting-edge technology to deliver a formidable capability, directly supporting tens of thousands of jobs across the country and investing billions of pounds into the UK economy.

9. In recognition of the centrality of our nuclear deterrent, Defence has received an additional £3 billion over the next two years, and a further £6 billion over the subsequent three years, which will be invested across the defence nuclear enterprise. This is in addition to our current levels of investment. This will support the **construction of industrial infrastructure**, the **modernisation of our manufacturing and maintenance capacity** to improve submarine availability and increase resilience, the growth of our graduate and apprentice nuclear **skills programmes**, and the **sustainment** of in-service submarines. We will continue to increase the capacity and capability of our nuclear enterprise over the coming decades. Specific investments in dry docks and ship lifts at Faslane and Devonport will increase resilience over the coming years.

10. The success of the nuclear enterprise remains a truly **national endeavour**. We will proactively look for opportunities to enhance cross-government cooperation to deliver the UK's defence nuclear enterprise, including exploiting suitable opportunities for collaboration on skills, capability, R&D, and infrastructure, ensuring a coherent demand signal to industry and academia. We will publish a Defence Nuclear Strategy to set out the recapitalisation programmes necessary to strengthen and build resilience in UK capabilities and provide an updated approach to people and specialist skills.

Credible Warfighting Capabilities

11. The deterrent effect of UK Defence comes not just from our nuclear capabilities, but also from the **credibility of our conventional warfighting capabilities across all domains**. As set out in the IRR, these forces must be sufficiently capable to deter potential adversaries from engaging in conflict, and to fight and win if deterrence fails. It is these credible warfighting capabilities that also make the UK a reliable and highly capable ally within NATO.



Aboard a Texan T1 training aircraft

12. As the battlespace evolves, it is essential that Defence ensures the **currency of its warfighting capabilities**, across all domains. The war in Ukraine has increased the urgency of our **programme of modernisation and mobilisation**, in particular for those force elements most likely to be decisive in future conflicts. We will address shortfalls in capabilities where a less contested and less volatile world meant we were able to take greater risk. Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capabilities, as well as Electronic Warfare capabilities (which can provide or negate asymmetric advantage), signals intelligence and cyber, will grow in importance.

13. Our ability to deter will continue to be underpinned by the **lethality** of our Forces. The Royal Navy continues to develop lethality to complement its carrier and amphibious strike capabilities. The Naval Strike Missile capability has been bought at pace and ships are already being fitted to receive this capability that allows precision strike on land and at sea. The Army will also enhance its deep fire capabilities, allowing the Army to counter and hit precise targets deeper, harder, faster and with greater accuracy. The RAF is continuing to evolve and innovate, including counter-UAS technology and initial Swarming Drones capabilities.

Stockpiles and enablers

14. Our lethality will only be sustained through investment in our stockpiles and enablers. The war in Ukraine has demonstrated the **need for sufficient stockpiles of munitions to sustain maritime, air and land operations** – a requirement further heightened by the gifting of

our own stocks to the Armed Forces of Ukraine. Replenishing – and augmenting – these stockpiles will demonstrate our heightened readiness and credibility to deter threats and defend the nation and our Allies. We will therefore invest an additional £2.5 billion in our munitions and stockpiles through the coming decade, on top of the increased investments committed at the Autumn Statement and Spring Budget. We will continue to review our holdings of all essential expendable items, and will invest in such capabilities as complex weapons, general munitions, and operational spares stocks to meet the needs of sustained operations.

15. Following the recent uplift in the Defence budget, we will also increase our investment in the **resilience and readiness of the UK's munitions infrastructure**, including storage facilities (whether in the UK or overseas as part of a multinational initiative) and the enterprise that underpins them. We will work with industry to make **supply chains** more resilient and reliable, providing Defence with an assured means of replenishing quickly when needed, keeping pace with our adversaries, and surging to meet operational demand.

16. The **provision of enablers is an essential component of the effectiveness of our Armed Forces** and underpins our credibility as a warfighting force – and therefore our deterrence. High-intensity combat operations with peer or near-peer adversaries would put far greater pressure on our enablers than we have seen for decades, particularly the capabilities and the workforce. It is therefore incumbent that all of our Single Services prioritise investment in these networks. A resilient Defence Support Network is vital to achieving operational

advantage and provides the ability to transition effectively between competition, crisis and conflict in a contested environment.

17. We will continue to invest in **counter-CBRN** forces, ensuring the UK maintains political and military freedom of action despite the presence, threat or use of CBRN materials. This will enable us to continue countering proliferation, supporting UK homeland resilience against CBRN threats, as well as maintaining our contingent capability to operate overseas. We will continue to support NATO's efforts to improve its preparedness to deter and defend against a CBRN incident and to ensure that the Alliance is best equipped to fight and prevail in a CBRN threat environment, both today and in the future. We will also invest more in our **medical** capabilities and stockpiles as critical enablers in the sustainment of operations.

18. We are re-investing in key areas such as **Strategic Lift** and the **Strategic Base** to improve our resilience, readiness, availability, capability and sustainability. Assured access or control of necessary Air, Sea and Land Strategic Lift requires investment to enable the deployment, sustainment, reaggregation and recovery of forces particularly when transitioning to crisis. The Strategic Base requires both secondary and alternate Air and Sea Ports of Embarkation, the re-establishment of military rail capability and investment in mission-critical equipment. Such investment will help us uphold our global ambitions, strengthen our international alliances, and increase interoperability with partners.

19. A **common logistic picture** will underpin the effectiveness of the Defence Support Network. This will be enabled by an efficient,

resilient, and assured digital backbone able to **cohere the abundance of data** and information systems used across Defence. We will invest in interoperable information systems, resilient to cyber threats, to increase data-sharing and integration with allies and partners, particularly through NATO as it moves towards a collective logistics approach.

Space and cyber – new domains and key enablers

20. The space domain is increasingly critical to Defence, and the war in Ukraine has served to reinforce this. **Space capabilities are key enablers in multi-domain operations**, supporting Intelligence, Surveillance and Reconnaissance, communications, navigation, timing, global Command and Control, and missile warning. We can also use space to deliver effects in support of operations around the globe. As such, space affords us **operational advantage against potential adversaries**; moreover, we depend on it for national resilience and our way of life. We must protect and defend the UK's interests in and through space, and the Defence Space Strategy (DSS), published in 2022, sets out a framework for doing so.

21. Since the DSS was published, UK Space Command has developed at pace. It is now delivering the £1.5 billion Defence Space Portfolio of innovative and resilient space capabilities and services. Alongside this, Strategic Command continues to deliver the £5 billion programme for the **next generation of Skynet secure satellite communications**. We have broadened and deepened relationships with key allies and partners:

multilaterally through NATO and the Combined Space Operations Initiative (Five Eyes, France and Germany); and bilaterally through new agreements with Australia, Japan, Republic of Korea, and the US (US Space Command and US Space Force). The MOD has supported UK efforts through the UN to advance discussions on **norms of responsible behaviours in space**, which aim to reduce the risk of miscalculation. Aligned to this, the UK has committed not to conduct destructive tests of Direct Ascent Anti-Satellite Missiles.

22. The space domain is increasingly contested, with the pace of technological change increasingly rapid. The UK must act fast to deliver space capabilities if we are to secure operational advantage. UK Space Command will improve our understanding of the domain through enhanced **Space Domain Awareness**. The new Joint Commercial Operations concept will fuse commercial and military data sources, leveraging AI and Machine Learning, while we continue to contribute to our allies' Space Situational Network. We will better integrate across Government and with industry through the accelerated delivery of a National Space Operations Centre. We will prioritise the development of new 'Space Control' capabilities that allow us to sustain freedom of action by generating carefully calibrated effects. We will also explore our launch capabilities to diversify our ability to project presence in the space domain. This will offer political choice in support of integrated response options. Finally, but no less fundamentally, Defence is growing a **skilled space workforce**. We will introduce active career management for space specialists and will continue delivery of a Space Academy, in partnership with industry and academia, to provide the high-quality training needed

across Defence at all levels. To date, 650 personnel have already been trained.

23. Defence will be a **global leader in cyber**, ready to compete constantly, and fight when the threshold of armed conflict is exceeded, while remaining resilient to cyber threats. Established in 2020, the **National Cyber Force (NCF)** is a partnership between defence and intelligence – including the MOD, GCHQ, SIS and Dstl – which carries out cyber operations on a daily basis to protect against threats to the UK, further the UK's foreign policy, support military operations, and prevent serious crime. In April 2023, the publication of the report 'NCF: Responsible Cyber Power in Practice' delivered on the commitment in the IRR to be as transparent as possible about the NCF's cyber capabilities and provide clarity on how the UK acts as a responsible and democratic cyber power.

24. Central to the NCF's approach is the 'doctrine of cognitive effect' – using techniques that have the potential to sow distrust, decrease morale, and weaken our adversaries' abilities to plan and conduct their activities effectively. This can include preventing terrorist groups from publishing pieces of extremist media online or making it harder for states to use the internet to spread disinformation by affecting their perception of the operating environment.

25. The NCF's work is covert and we therefore do not reveal details of individual operations. However, despite the necessary level of secrecy, in line with our commitment to being a responsible cyber actor, we can confirm that over the last three years the NCF has delivered operations to:

- protect military deployments overseas;

- disrupt terrorist groups;
- counter sophisticated, stealthy and continuous cyber threats; and
- counter state disinformation campaigns.

26. Over the coming years we will expand the capacity and reach of the NCF to keep pace with adversaries and **ensure that offensive cyber capabilities are fit for future conflicts** and deliver greatest effect as an integrated part of the force. Many of our capabilities in this area cannot be disclosed publicly. We remain committed to the establishment and expansion of the NCF in Salmesbury, Lancashire.

27. Defence Digital continues to drive forward the cyber security protections for our people and systems to protect, detect, respond and recover from cyber events, and deliver defensive cyber operations, including beyond our networks where necessary. Our ability to both learn from events and hunt forward to find threats will generate strategic advantage for our personnel and partners in conflict. This involves close collaboration with our cross-government partners, including the National Cyber Security Centre, and our international partners, in particular through Five Eyes and NATO.

NATO

28. Our commitment to Article 5 of the North Atlantic Treaty, backed up by modern, credible forces, is the most powerful deterrent against aggression. NATO gives us a competitive advantage over our adversaries through the solidarity of 31 nations and the multiplying effect of interoperable forces. NATO will remain the

bedrock of Euro-Atlantic security and the cornerstone of UK defence.

29. As the IRR sets out, the **UK's commitment to NATO is ironclad** and unwavering. We have consistently exceeded NATO's Defence Investment Pledge to spend 2% of GDP on defence and have set a new national aspiration over the longer term to invest 2.5% of GDP on defence, as the fiscal and economic circumstances allow. We offer the Alliance the full spectrum of defence capabilities, including by declaring our Continuous at Sea Nuclear Deterrent to the Alliance as well as our offensive cyber capabilities through the National Cyber Force. Our Armed Forces participate in every NATO operation and mission and provide over 1,000 personnel to NATO's Command and Force Structures, including the 4* Deputy Supreme Allied Commander Europe.

30. The Alliance has responded to a more dangerous world with solidarity and resolve. NATO's unity has held firm throughout the war in Ukraine. Allies have not and will not be deterred from providing Ukraine with practical and political support for the long term. Finland's accession to the Alliance in April 2023, with Sweden to follow, further strengthens NATO and bolsters our security.

31. NATO has also accelerated its most **radical transformation** since the Cold War. Through the 2022 Strategic Concept and implementation of the Concept for the Deterrence and Defence of the Euro-Atlantic Area, NATO is hardening against the threats it faces today and getting ready for the threats of tomorrow. The Alliance has a new generation of warfighting plans, which will be backed up by more high-readiness forces, a modernised military alert system, more pre-

positioned equipment, and a command and force structure that will allow it to respond faster to all threats. We will be ready to play a key part in NATO's Regional and Operational and Strategic Plans.

32. The UK has been at the heart of this transformation and will maintain its leading position in the decade ahead. As NATO transforms, so will the UK's contribution, underscored by our commitment to integration and interoperability. We will make a **comprehensive force commitment to the Alliance** through a substantial offer to the new NATO Force Model (NFM). As the Alliance looks to welcome in two new members, the UK will also lead the collaboration amongst Allies to shape a revised **Control and Command structure, with a specific focus on Northern Europe** – the regional area of greatest importance to our homeland defence. We will continue to promote interoperability with Allies through adoption of NATO standards, uniform systems, and collaboration. We will continue to work closely with NATO as it evolves its doctrine for employing capabilities in cyber and space, and we will champion further investment in NATO's digital transformation to further enable multi-domain, data-enabled operations.

33. The Royal Navy will continue to provide the most comprehensive maritime contribution to NATO warfighting capability of any European Navy, routinely declaring Carrier, Anti-Submarine Warfare (ASW) and Littoral Strike capabilities with their enablers to the Alliance's maritime forces. UK capital ships will continue to operate as NATO flagships and we will be highly visible in NATO maritime activity in the High North, Baltic and Mediterranean Seas and the Atlantic Ocean.

34. The Army will continue to lead the multinational Enhanced Forward Presence Battlegroup in Estonia and will provide the land component of the Very High Readiness Joint Taskforce in 2023 and, in 2024, the land component of the inaugural Allied Reaction Force. Whilst maintaining our warfighting Division, the Army will also offer to strengthen, with Allies, the UK-led Allied Rapid Reaction Corps as a strategic reserve for NATO's land forces.

35. The Royal Air Force continues to conduct NATO air patrols over Poland, Romania and Estonia. It will also provide to NATO its significant intelligence, surveillance and reconnaissance capabilities, Air-to-Air refuelling and modern strategic transport fleets, as well as its highly capable fourth and fifth-generation combat aircraft.

The Joint Expeditionary Force and the Northern Group

36. To achieve our ability to deter, defend and compete, the IRR also emphasises that the UK will need to work beyond NATO through unilateral formats. Our commitment to the defence of Northern Europe is also demonstrated through our operationalisation of the Joint Expeditionary Force (JEF) – for which the UK is the Framework Nation. The JEF has proved to be an effective tool for enhancing the security of the North Atlantic, High North and Baltic Sea region, and for providing support to participant nations as we have done during Finland and Sweden's NATO accession process. The JEF will continue to work in full complementarity with NATO to provide an additional tier of defence, security and stability. The Northern Group is



another valuable forum in which its members – committed to maintaining security and stability in the Northern European region and the wider continent, as well as strengthening transatlantic bonds – come together for

discussions on defence and security matters. We will continue to prioritise our leadership of both the JEF and the Northern Group, promoting ongoing close cooperation and interoperability.

SUPPORT FOR UKRAINE

As set out in the IRR, the most urgent priority in the Euro-Atlantic is to support Ukraine to reassert its sovereignty and deny Russia any strategic benefit from its invasion. Our continued and unwavering support to Ukraine has shown the UK at its best. We have committed to continuing to provide the capabilities that Ukraine requires to defend itself from Russian aggression, to take back territory seized illegally, and to enter negotiations from a position of strength – when it chooses so to do – to secure a lasting peace. We will stand by Ukraine for the long haul. The UK provided £2.3 billion in military support to Ukraine in 2022 – more than any country other than the United States – and has already committed to sustain that level of military support into 2024.

Within a day of Russia’s illegal invasion of Ukraine, the Defence Secretary convened an international donors conference to provide urgently needed support for Ukraine – both military and humanitarian. The UK was well placed to provide military support to Ukraine because since 2014, after Russia unlawfully seized Crimea as well as Ukrainian territory in the Donbas region, the UK has been conducting Operation ORBITAL, training Ukrainian forces and building their capabilities. We continue to pledge our own support nationally, and encourage and enable dozens of other countries to do likewise, often discreetly. On 8 February 2023, the Prime Minister and President Zelenskyy signed the London Declaration. This reaffirmed the UK’s unwavering commitment to Ukraine’s sovereignty and territorial integrity and our enduring military support to Ukraine.

Our national contributions have included artillery, air defence and armoured vehicles. We have donated: several hundred armoured and protected vehicles; a squadron of Challenger 2 Tanks, with armoured recovery and repair vehicles to follow; twenty AS90 self-propelled 155mm guns, battle ready, with more at varying states of readiness provided for replenishment and spares; more than 10,000 anti-tank weapons (including approximately 5,500 NLAW, plus Javelin, Brimstone, and other anti-tank weapons); multiple Launch Rocket Systems and ammunition; six Stormer vehicles fitted with Starstreak launchers; thousands of surface-to-air missiles, including Starstreak, and medium range air defence missiles, including AMRAAM; over 2,000 uncrewed aerial systems (including hundreds of loitering aerial munitions); Sea King helicopters; logistics vehicles; generators; and communications equipment. Most recently, the UK has provided Storm Shadow, long-range missiles, a world leading ‘deep-strike’ capability.

We will continue to be a leading provider of military equipment to Ukraine. This year our support will again total some £2.3 billion, including over 360,000 rounds of heavy artillery ammunition; hundreds of millions of pounds' worth of strategic UAS; and hundreds of additional air defence missiles

In summer 2022, the UK, working closely with international partners, established the International Fund for Ukraine (IFU) – a funding mechanism that uses contributions from international partners to procure priority military assistance at pace. Contributions of more than £770 million have been made to the IFU. These will ensure the continued supply of military support – lethal and non-lethal – to Ukraine through 2023 and beyond. In early 2023, the UK, alongside our international partners, agreed the first IFU capability package. The package included vital capabilities in the form of air defence, uncrewed air systems, maritime intelligence, surveillance and reconnaissance, and spare parts for equipment, including Ukraine's tanks. A number of capability packages will be agreed through a second Urgent Bidding Round; the first of these packages, which focused on air defence, was agreed in June 2023.

Building on the success of Operation ORBITAL, the UK – alongside a growing number of international partners – continues to deliver a major training operation for Ukrainian forces under Operation INTERFLEX. Working with up to nine partner nations, this operation is providing high-calibre training at sites across the UK – including for Challenger 2 and AS90 crews. More than 18,000 Ukrainian personnel have been trained under this programme, with the ambition for up to 20,000 in 2023 alone. We will conduct more specialised and collective training, including in the maritime domain and, with international partners, we will roll out a programme of basic training to develop the Ukrainian fighter jet pilots of the future.

We are ensuring the support we are providing now, and the planning for longer-term support, considers our potential role in any post-conflict scenario. Ukraine will require safe skies, seas and borders, with strong Armed Forces, to maintain a stable and prosperous state. We are working with Ukraine and international allies and partners on how we will achieve that. We will provide support and advanced capabilities that meet NATO standards that will allow Ukraine the space and time to recover, reassure its people and convince Russia that it is not in their interests to continue or resume the fight.

All of this is to ensure that Ukraine has what it needs now, and in the future, to defend its sovereignty, rebuild its economy, give confidence to its people to return home, encourage private sector investment, and become a member of NATO. We will continue to work closely with the FCDO so that the diplomatic and military levers are synchronised to support Ukraine in achieving success on the battlefield and protecting its people – and to help President Zelenskyy secure a just settlement and lasting peace.

Chapter 6:

Campaigning and Global Competition

1. Defence will always be required to operate across the world to safeguard our interests and those of our allies. Actors who challenge our interests in one region, invariably challenge us the world over.
2. Nor are they just challenging the UK. We have witnessed the willingness of actors to use all the levers of state power, including violence and coercion, to achieve a dominant role and destabilise the open international order which upholds global society. They undermine the sovereignty and autonomy of nations, create instability, threaten trade, and challenge human security.
3. Our campaigning approach drives the way we respond to these challenges in the Euro-Atlantic and around the world. Whilst we have set out in the previous chapter our re-investment in our warfighting force through the lens of its contribution principally to NATO, that force still underpins our hard-power projection in the world beyond as well. Our aircraft carriers, for example, have been both committed to NATO in the last twenty-four months as well as deployed into the Indo-Pacific to contribute to other UK foreign policy aims in that region.

What is a campaigning approach?

4. Given the changing threat picture, we will now evolve DCP21's commitment to persistent engagement into a **global campaigning approach** against the threats

from state and non-state actors. Our approach will be enabled by a dedicated budget, allowing us to respond rapidly and seize opportunities as they emerge. Taken together, this dedicated operate budget, a campaigning mindset that makes use of all the levers of Defence, an increased focus on productivity (as set out in Chapter 4), and our development of teams of 'exportable expertise', will enable us – by 2030 – to double the effect that we seek to achieve in the world.

5. Focused on threat actors, and the impediments they present to the UK achieving its national security objectives, campaigning is an organised and active way to achieve our goals. A campaigning approach brings together all the levers of Defence – not only military, but also informational, economic and defence diplomatic – in conjunction with wider Government, elements of the private sector, and with our allies and partners, to address the most pressing security threats we face. It is representative of our integrated approach to deterrence.

6. Our approach demands that Defence considers the broadest context, recognises how activities complement each other, and resources activity that contributes to campaign objectives. It is focused on outputs rather than inputs and appreciates that training and trading are intrinsically linked, that intelligence and capability collaboration are as much part of the tapestry of effect as operational partnering.



7. Campaigning recognises that every Defence action has communicative effect. Everything we do, or do not do, communicates a message that will be perceived differently by a multitude of target audiences, be they friendly, neutral, or hostile; both at home and abroad. Campaigning advances the national interests by using Defence as a means of communication to influence the attitudes, beliefs and behaviours of audiences.

How do we campaign?

8. Campaigning runs through Defence, from the strategic level, through the operational, to tactical delivery. Defence's levers are broad: our people – civil servants and service personnel; our culture and ethos – inclusive, diverse and dynamic; our world-leading technology and cutting-edge capability – more lethal, integrated and dynamic than ever before; our global network of Defence sections and hubs and our ability to project force; our integration with industry; and our allies and partners, with whom we train and partner, from whom we learn, and to whom we export. To succeed, we will bring to bear all the levers of Defence together into our campaigning mindset. Our campaigns will be the embodiment of **multi-domain integration**.

9. The **Global Operate Programme** drives our approach, setting the demand signal for our campaigns. It describes the effects we will achieve using all the levers of Defence and how we will work with the rest of Government and our allies and partners to address the impediments to our national security and achieve our strategic outcomes. It offers

choice of action, choice of message and choice of partners in addressing the challenges. The Global Operate Programme will orchestrate between campaigns, balancing weight of effort, maximising impact and delivering meaningful effect.

10. Our approach will be focused on tailored campaigns which help us deter, defend and compete to address the most significant threats we face. **Campaign teams** orchestrate and cohere Defence activity so that we are more effective than the sum of our parts. Able to draw on thematic and geographic expertise, campaign teams leverage all our capabilities to challenge malign activity across regions and domains. They look long-term, planning to shape activity in the future as well as set requirements for capability development and balance of investment choices. They ensure we are addressing the most acute issues now and safeguarding against emerging and potential risks in the future.

11. Our campaigning approach will be underpinned by data and digitisation. **Data-driven strategic campaigning** will enhance our decision-making, enable mission command, inform trends and opportunities and allow Defence to think long term but act now. It allows Defence to attain better understanding, insight and foresight, assimilating and presenting data to maximise effect.

Global Response Force

12. The ability to **'get there first'** – whether because we are present already, or because we can deploy rapidly – is an important part of our deterrence posture both in Europe and

beyond as the global security environment has evolved from competitive to contested. We need a force that is able to respond globally, at pace, drawing on capabilities across all five domains, and cohering our global outputs, in order to deliver Defence's mission.

13. We will therefore create a Defence **Global Response Force (GRF)**, bringing together our deployed and high-readiness forces, and drawing on capabilities from across Defence in all domains. It will be optimised for rapid, global effect to respond to crisis, project force and campaign constantly. As an all-domain task force, it will deliver flexible responses and strategic choice to deal with challenges that emerge, anywhere in the world.

Persistent Presence

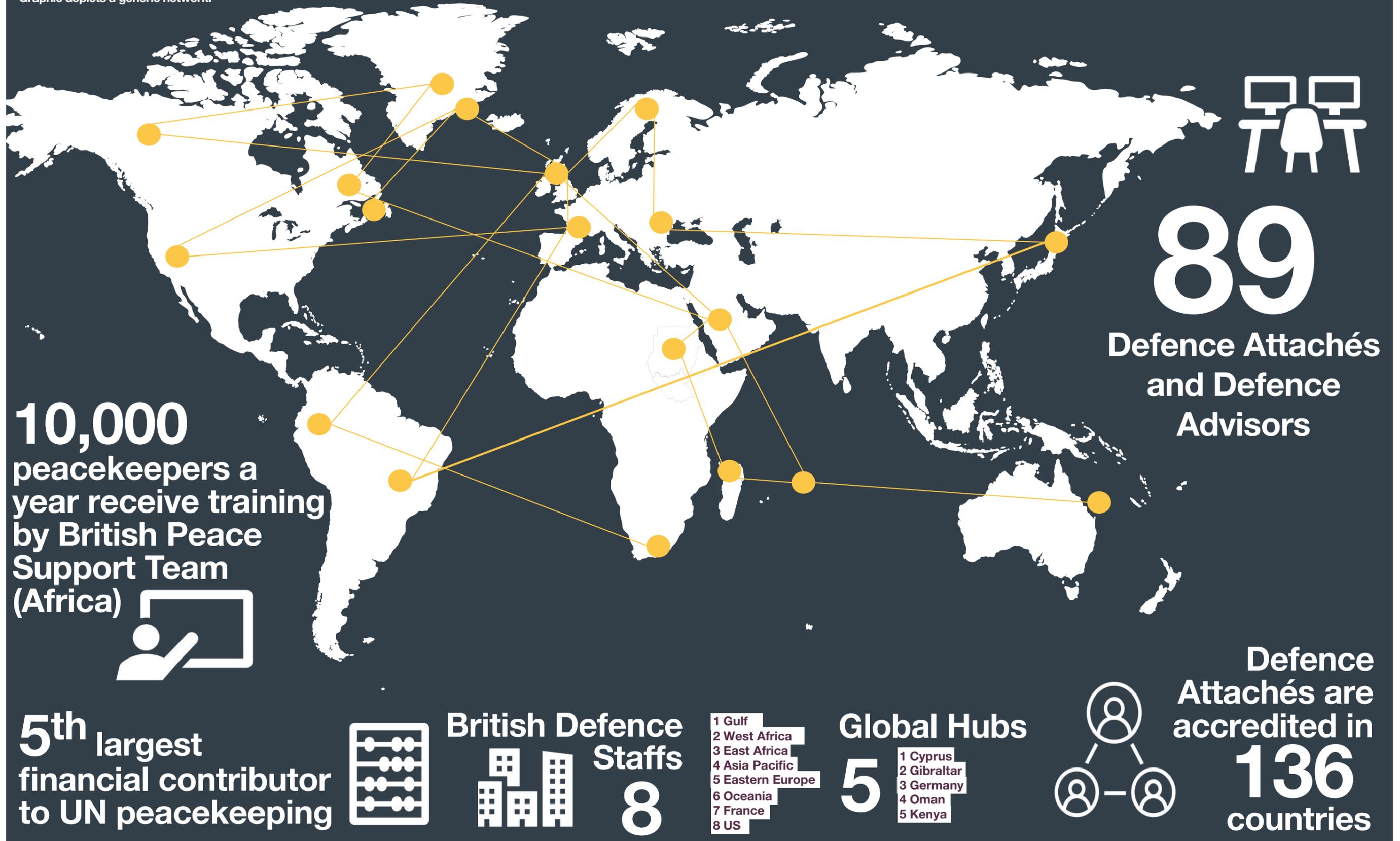
14. To campaign effectively, forward deployment and persistent presence remain important, helping us to understand the global security environment, sense emergent threats and opportunities, be poised to act, and learn lessons and adapt our approach. Our persistent presence is an integral aspect of our deterrence by denial and contributes to the UK's ability to project soft power. Our campaigning levers and activities outlined below will help us better to anticipate, prevent, reduce, and resolve conflicts.



16 Air Assault brigade exercising at Pembrey Sands beach

Defence's Global Network: People, places & tech

Graphic depicts a generic network.



15. With the transfer of leadership of the **Integrated Global Defence Network** to Strategic Command, we can further exploit the power of combinations, integrating overseas bases, Defence Attachés, loan service and liaison posts, and alumni networks, all enabled by improved connectivity and data exploitation. This network of 'people, places and tech' will provide an advantage that helps us to protect the nation at reach in both the Euro-Atlantic and Indo-Pacific, as well as Africa, the Gulf and other critical regions, through enhanced relationships and an improved ability to sense and understand.

16. Our **Defence Attachés** are currently based on 89 separate UK Embassy platforms, and accredited in 136 different countries. We aim to grow our global network of British Defence Staffs and Defence Attachés steadily as resources become available and in line with Government and Defence objectives. Six new Defence Attaché locations have been opened in around the last twelve months. We will further professionalise and operationalise the network to establish a clearly defined career stream for Service Personnel and create a talent pipeline that equips our network with the skills needed for global campaigning. We will deliver targeted



Crew of HMS Lancaster intercept a suspected illegal weapons haul off the Gulf of Oman



'prosperity' training to our Defence Attachés to strengthen the capability in this area of defence section work.

17. We will continue to invest in our **Global Hubs** in Cyprus, Gibraltar, Germany, Oman and Kenya. We have dedicated naval facilities in Bahrain and are developing a defence strategic hub in Oman: these provide a platform from which we can project assets and increase training operations with partners across the Indian Ocean with greater frequency. Our strategic hub in Kenya provides a regional anchor for training and capacity-building across the region, underpinning our commitment to tackling collective threats such as terrorism in the Horn of Africa region. These hubs, and our other overseas bases and support facilities, provide a Defence presence in important parts of the world. They act as a springboard for Defence to project globally, provide vital access for our own forces, Government partners and our allies, and are essential to our being able to combat current and future threats. Investment in our hubs will enable Defence to support next-generation capabilities across all five domains.

18. We will continue to maintain a presence in the Overseas Territories, from maintaining a garrison in the Falkland Islands in the South Atlantic, to the permanent deployment of ships to the Caribbean and Indo-Pacific, deterring threats to the Overseas Territories and through providing humanitarian and disaster relief (HADR) when required.

Peace-keeping

19. The UK, the fifth-largest financial contributor to UN peacekeeping, plays a leading role in the UN and reform efforts: by funding policy development, placing personnel in positions of influence, and lobbying to draw contributions from others. This is partially achieved through our own deployments; the UK contributes around 285 Defence personnel to UN peacekeeping, across seven individual missions. This includes the provision of 260 personnel to the peacekeeping mission in Cyprus (UNFICYP), playing a crucial role in maintaining the island's stability; and ten in Somalia. From 2020 to early 2023, the UK also contributed a 250-strong Long Range Reconnaissance Group to the peacekeeping mission in Mali (MINUSMA). This significantly enhanced our reputation for in-theatre performance and improved MINUSMA's overall delivery, demonstrating proof-of-concept for our vision of proactive peacekeeping.

20. The UK is also renowned for the training it provides to other nations' peacekeepers, covering both pre-deployment training and niche, high-impact capacity-building in areas such as counter-IED, medical, and peacekeeping intelligence. 10,000 peacekeepers a year receive training through the British Peace Support Team (Africa), based in Kenya. The UK is now looking to enhance its training offer, including through looking at the possibility of British trainers following partners' troops into theatre to provide continued mentorship; work to develop a pilot is ongoing.

Building our partners' capacity and resilience

21. Terrorist organisations – including Al Shabaab and Daesh – remain a serious concern across the peripheries of the Euro-Atlantic region, particularly in Africa and the Levant. Our ability to work with and alongside regional partners is critical to deterring and countering such actors and helping to support regional stability. Our world-leading **defence education, training and capacity-building offer** to our partners across the world is a significant contribution to the UK's soft power: it builds, strengthens and sustains long-lasting partnerships; it improves interoperability and integration from the strategic level to the tactical; and it boosts our partners' resilience, and helps them to deter, defend and compete in their own regions. This better equips them to protect their nations from extremist groups and other pernicious influences, reducing the risk to British interests overseas.

22. In Africa, we will support the African voice on security matters including by championing the mantra of African-led solutions to African problems. We will work with the international community and the United Nations to burden-share, and to promote democracy and an open and stable international system. To demonstrate our continued commitment to West African security, we will support our partners' efforts to bring stability to the **Sahel** region and the littoral states. We will continue to build maritime security partnerships across the **Gulf of Guinea**, we will enhance our bilateral relationship with **Ghana**, and we will deepen cooperation with **Nigeria**. Our strategic hub in **Kenya** provides a regional anchor for training and capacity-building across the region, underpinning our

commitment to tackling shared threats such as terrorism emanating from Somalia and the wider Horn of Africa region.

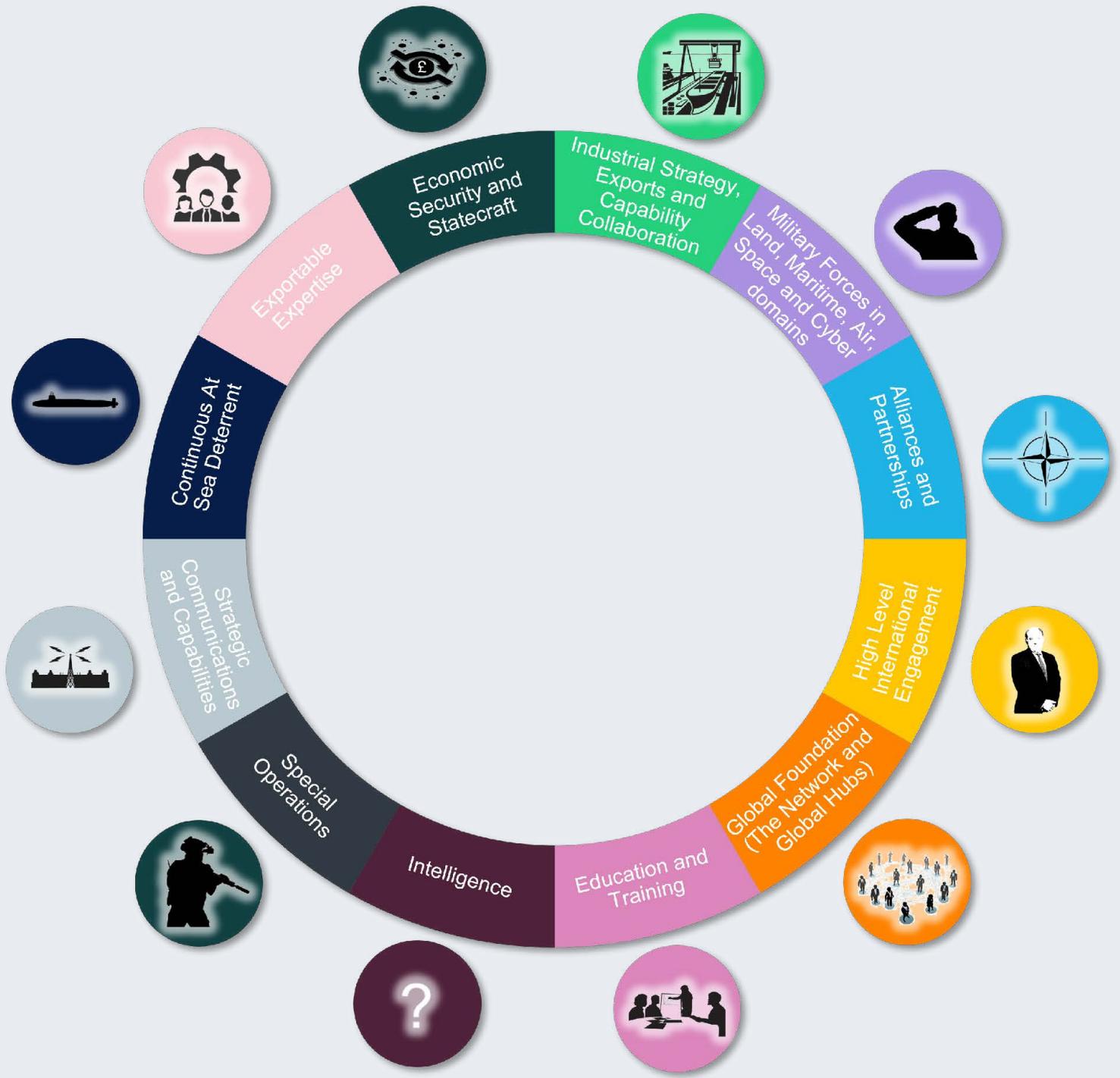
23. Although there remains an important role for bilateral relationships, we will also remain committed to both multilateralism and 'minilateralism'. Bilateral partnerships can generate even more value when combined, and when issues are seen through a wider strategic and regional lens. We will therefore work to help to shore up the foundations of regional institutions critical to long-term stability such as the **African Union** and **Regional Economic Communities**. We will champion multilateralism to foster greater engagement with a range of partners, as shown through our support for the Accra Initiative – the African-led solution to address the spread of violence from the Sahel. Our growing number of important partnerships will provide a basis for cooperation that can lead to practical, regional solutions to complex problems.

24. Given the continued risk posed by terrorist organisations and state proxies in **North Africa**, we will also continue to recognise the strategic importance of our partners there, particularly **Egypt, Morocco** and **Algeria**.

25. Our commitment to **supporting the resilience and security of sovereign states** is pertinent whether the threat comes from terrorist organisations or from state actors. In the Euro-Atlantic, Russia has already shown a brazen willingness to challenge the sovereignty of its neighbours in the Balkans and Caucasus, such as **Moldova** and **Georgia**. We are actively supporting countries in the Western Balkans region – a strategically important region for European security – to make progress toward democratic values and greater Euro-Atlantic



Levers of Defence



integration, including by building resilience in their defence and security institutions. We will continue our commitment to KFOR, the NATO mission in **Kosovo**, and will continue to provide bilateral defence assistance to **Bosnia and Herzegovina's** Armed Forces. We acknowledge the importance of the EUFOR peace stabilisation mission in Bosnia and Herzegovina and will explore how we can best support this initiative. We will continue to build our partnerships with NATO Allies in the region such as Albania, Montenegro and North Macedonia.

26. Defence will continue to play an integral part in both policy and delivery of the Conflict Stability and Security Fund (CSSF) as it evolves into the **UK Integrated Security Fund** (ISF). In line with the IRR's priorities, we will continue to capitalise on opportunities under the Fund to tackle conflict, instability and insecurity overseas, including from state-based, hybrid, and transnational threats. These efforts will be integrated across Government to achieve most effect.

27. There are many areas where UK Defence has expertise that is widely regarded around the world, and where our advice is often sought. This includes areas such as cyber, science and technology, academic and conceptual thinking, and strategy development. In all these fields, we will deliberately **develop exportable expertise**: civil servants, military officials and other experts chosen, trained and ready to deploy to impart their skills, knowledge and experience, as well as learn lessons from our partners, and share best practice. We will therefore stand-up three dedicated teams of deployable experts to support partners. Initially teams will provide cyber expertise, capability guidance, and defence strategy and planning advice. This will enable Defence

to generate and proactively share strategic advantage with our partners around the world.

Defence Exports

28. Defence exports, and international capability collaboration more generally, offer far greater benefits than simple income generation for defence companies. Defence exports can also contribute to:

- Furthering the strategic policy objectives of Government, including by building and strengthening long-term security alliances and partnerships; denying political and economic opportunities to adversaries and competitors; and improving regional stability and the maintenance of an international open order.
- Real-terms benefit for MOD through: burden-sharing and co-developing with international partners; maintaining production lines and skills onshore; increasing inward investment in R&D, S&T, innovation, and new capabilities; and gaining access to others' expertise.
- Building a resilient UK defence industry that has a diverse set of customers and products; is resilient to the withdrawal or underperformance of any single actor; is able to invest in its UK workforce in response to changing requirements; and has capacity for surge production, responsive to rapid changes in demand. Faster acquisition processes will drive speed to market and boost exportability; in turn, boosting exportability will maximise aggregate demand and restore industrial output; in turn this will aid stockpile replenishment: both ours and our Allies'.

29. We are determined to uphold our global reputation as one of the premier producers of defence capabilities and equipment, underpinned by our skilled workforce, and our world-leading S&T development sectors and infrastructure. We will continue to attract companies based overseas to invest in, or move parts of their businesses to, the UK. We will also continue to integrate our approach to exports with international cooperation, joint initiatives, and foreign investment.

30. To increase defence exports, we will:

- Take a long-term approach to exports markets, recognising that defence exports require persistent, strategic engagement, often over many years. We will also take a more active approach to the sustainment and upgrade opportunities arising from significant export sales. These opportunities provide not just a further revenue-driving opportunity, but also the potential to cement long-term strategic relationships with overseas partners – particularly where the Royal Navy, British Army and the Royal Air Force are traditionally the reference navy, army or air force.
- Put a premium on exportability in capability development and selection by making it an intrinsic factor in the acquisition process. From the outset, exportability of the capability in question will be assessed and, where there is potential, shared at this early stage with the Department for Business and Trade. We will require capability sponsors to factor in exportability and an assessment of market opportunities at key programmatic decision points. We will introduce a mentality of ‘procure to export’, while ensuring appropriate technology protection. Putting greater priority on

exportability will not simply include our major export programmes, but encompass high-volume, low-margin capabilities as well: ‘competing for inventory’. In short, exportability will become part of the DNA of our acquisition process.

- Adopt an activist approach to exports. We will develop the mechanisms across the whole of Government to support this, including the re-establishment of a Defence Exports Inter-Ministerial Group to drive priorities and sustain senior engagement – drawing on Ministers, senior officials and trade envoys – on key campaigns. We will work with UK Defence and Security Exports (UKDSE) to coordinate resources across Government, bringing them in earlier and sharing data, so that UKDSE knowledge of global market opportunities and relevant requirements support exportability considerations.
- Exploit UK strengths in the Defence Technology sector, including Electronic Warfare and counter-UAS. We will intensify support to key export campaigns where there is a clear global market opportunity, including innovative UK companies whose products may not be in the MOD’s own inventory.
- Accelerate the delivery of Government-to-Government frameworks for key allies and partners to support both capability collaboration and exports. In some cases, these will require enduring Defence Partnership Offices, to oversee the delivery of strategic capability partnerships. We will establish a new office to cohere cross-Government priorities and best practice, connecting defence exports opportunities with wider strategic objectives.

Chapter 7:

Strength through our Partnerships

1. The UK is unlikely to act alone in an interconnected world. A cooperative approach is therefore needed to effectively and sustainably counter malign threats and support global stability, through mutually supportive burden-sharing: the previous chapter highlighted our much-valued partnerships in Africa, the Levant and elsewhere. The UK is recognised for its role as a convening power and the strength of our Defence Network is valued by our allies and partners. The UK's global relationships provide opportunities to shape and influence the strategic environment. Through our posture and our persistent presence around the world, we have a deterrent effect, contesting the space that our adversaries would otherwise seek to fill, and are better placed to seize opportunities.

2. A wide range of relationships and dialogue – including with those who may threaten our interests – will help build strategic stability, transparency and better mutual understanding. This will support routes for de-escalation when required, and a refreshed approach (developed alongside the FCDO) to arms control and counter-proliferation that complements our deterrence and defence posture.

Euro-Atlantic Allies and Partners

3. Seamless interoperability with our closest allies – notably through the auspices of NATO – has a force-multiplying effect. The **US** is, and

will remain, the UK's pre-eminent bilateral partner for security, defence, and foreign policy. The combined strength of our relationship is not only critical to the security of the UK, but also of the wider Euro-Atlantic, and the world. In line with the Atlantic Declaration announced in June 2023, we will maintain our cooperation with our most important ally, so that it remains the deepest, broadest and most-advanced of any two countries in the world. We will continue to host vital USAF capabilities on UK territory. We will continue to deepen our partnerships across domains, on operations, through joint partnerships on research and development, and in next-generation space and cyber capabilities. We recognise that the US is world-leading in many areas, but to remain ahead of our adversaries, our combined joint strength is even greater.

4. **France** is the UK's closest European ally. The Lancaster House Agreement of 2010 established an enduring foundation for our cooperation, exemplified through the creation of the UK-France Combined Joint Expeditionary Force (CJEF). We will work closely in promoting international security and tackling shared challenges, including by harnessing the full potential to deliver effects through the CJEF. At the March 2023 UK-France Summit, we committed to further enhancing our existing bilateral and multilateral military integration, particularly through our joint land exercises through NATO. Building on our collaboration in the Euro-Atlantic, we will explore opportunities for France and the United Kingdom to demonstrate for the first time the sequencing of more persistent European Carrier Strike Group presence in the

Credit NATO



Indo-Pacific. We will explore the increased development of joint military capabilities collaboration, with an emphasis on interoperability and exploiting new areas of science and technology. We will also enhance industrial cooperation through a closer relationship on industrial strategy. We will continue our strategic dialogue, covering almost all areas of policy, to ensure alignment. We will also explore ways to enhance cooperation with the US and France together – as NATO Allies and Permanent Members of the UN Security Council – in **the P3 format**.

5. We remain committed to all our **JEF Partners** (Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, the Netherlands, Norway, and Sweden). As shown by the bilateral security guarantees signed with **Finland** and **Sweden** last year, we will continue to stand side by side with our closest friends in defence of our shared values and our collective security. We have deepened our

partnership with **Norway** – a vital partner committed to protecting the North Sea against Russian aggression – in the maritime domain, including on joint anti-submarine warfare capabilities and in the protection of sub-surface critical national infrastructure.

6. Our commitment to our Baltic partners, on the Eastern flank of the Alliance, remains unwavering. We have a particularly close partnership with **Estonia**, through our enhanced Forward Presence (eFP). On 8 November 2022, we signed a Defence Roadmap which sets out our joint plan to implement the commitments for the forward defence of Estonia that the UK made at the NATO Madrid Summit.

7. In the **High North**, our goal remains to maintain the historic norms of low tension and high co-operation, but we are ready to respond to the changing regional dynamics arising from receding sea ice, which is bringing with it



heightened competition and militarisation of the region. We are committed to protecting our Critical National Infrastructure and our other national interests, to ensuring our freedom to navigate and operate across the wider region, to reinforcing the open international system, particularly UNCLOS, and to contesting malign and destabilising behaviours.

8. Germany remains one of our closest like-minded allies. We continue to share a common vision to jointly play a leading role in NATO, particularly in supporting NATO's Eastern flank. This has been realised recently through our joint Baltic Air Policing operations. We will also continue to further strengthen our defence industrial partnership, particularly in the Land domain, where the joint development of Boxer is a prime example of equipment capability collaboration. We welcome Germany's commitment to increase its Defence spending and will support Germany as it delivers its increased investment in its Armed Forces. To that end, we will pursue a renewed joint vision statement over the next year and will look increasingly to partner with Germany on operational deployments.

9. The UK-Poland relationship is as strong as it has ever been. Building on the foundations provided by the 2017 UK-Poland Defence Treaty and our shared membership of NATO and the Northern Group, over the past 18 months we have worked closely in our delivery of military support and training to the Armed Forces of Ukraine. Poland has provided generous support and hosting to a number of UK operations in its territory and we have deepened our industrial relationship, for example through the recent £1.88 billion Pilica+ contract for short-range Ground Based Air Defence (GBAD). Over the coming year we will codify our relationship to reaffirm

our joint approach to Ukraine, to ensure progress on capability projects such as the Future Common Missile and the AH140 Miecznik frigate programme, and to facilitate further deployments and exercises.

10. Türkiye is a crucial partner for the UK, as well as a regional power of growing importance, sitting at the cross-roads of three continents, an important NATO Ally, and an influential G20 member. We will commit to strengthening our strong and enduring Defence relationship. We will also pursue increased industrial collaboration, particularly within the Air domain. We recognise the vital role Türkiye plays in upholding security in the Black Sea, including through the Montreux Convention.

11. We will also deepen our strategic dialogue with the wider Mediterranean neighbourhood, as part of our commitment to **NATO's 360° approach to deterrence and defence**. We enjoy long-standing relationships with **Spain, Portugal and Greece**, and are committed to working together as Allies and through NATO, including by identifying new areas for bilateral defence cooperation now that the UK has left the EU, for example through the Joint Vision Statement which the Defence Secretary recently signed with Greece. Our relationship with the **Republic of Cyprus** remains critical. We will continue to invest in the Sovereign Base Areas, Cyprus, a key node enabling global reach and from which we will continue to provide a forward presence in the strategically important Eastern Mediterranean. With **Italy**, we will encourage further development of collaborative operational and defence industry partnerships. This is exemplified by our historic and ongoing cooperation in the combat air and weapons sector, recently demonstrated by the launch of our partnership with Japan on the next generation of Combat Aircraft under the

trilateral **Global Combat Air Programme (GCAP)**.

12. We will continue to support close cooperation and coherence between **NATO and the EU**: there will be areas where the strengths and different tools of both organisations need to be combined. For example, we support the need to explore complementary approaches to hybrid threats and resilience, space, cyberspace and maritime security. We welcome the new Joint Declaration on NATO-EU Cooperation, signed in January, that included specific commitments to work together more closely on geostrategic competition, resilience, emerging and disruptive technologies, and foreign information interference. It remains important that the Joint Declaration recognised the need for European defence to be complementary to, and interoperable with, NATO – and that it called for the fullest possible involvement of non-EU NATO Allies in EU initiatives and vice-versa. We will need this close cooperation in order to protect long-term European security, particularly when developing and procuring defence technologies to replenish our stocks as we continue to support Ukraine.

13. The new Windsor Framework creates a foundation for stronger **UK-EU** relations. The UK will use the new momentum in the relationship to develop forms of direct cooperation, as we already intend to do through the PESCO project on military mobility. We welcome the opportunity to support EU initiatives and operations in the future, particularly where this complements existing operations the UK participates in. We will explore opportunities for increased co-operation, co-ordination, and complementary activity with the EU.

Atlantic-Pacific Partnerships: Five Eyes, AUKUS, GCAP

14. The IRR highlighted the potency of ‘Atlantic-Pacific’ partnerships, based on a shared view that the prosperity and security of the Euro-Atlantic and Indo-Pacific are inextricably linked. Defence partnerships that span the regions are particularly important in a challenging threat environment. Across the Atlantic-Pacific, the UK has partners with whom it can share, bilaterally and multilaterally, the most sensitive intelligence – most notably through the **Five Eyes** construct – and with whom it can jointly develop new technological solutions and scientific developments, capitalising on each nation’s expertise. The new **AUKUS** and **GCAP** partnerships exemplify our commitment to **deepening the relationships between the Euro-Atlantic and Indo-Pacific** regions, and to facing the threats of the future together.

15. The **Five Eyes** partnership exemplifies the deep trust, mutual commitment and shared values of Australia, Canada, New Zealand, the UK, and the US. The UK will work across the full breadth of our shared agendas to develop the partnership further. Our relationships with such like-minded partners form a platform for increased strategic collaboration, intelligence-sharing, capability development and operational coordination.

16. The landmark AUKUS Partnership, representing unprecedented cooperation on nuclear-powered submarines and other advanced capabilities, demonstrates the closeness of the relationship between the UK, US and Australia. Under the auspices of this trilateral partnership, we will deliver **SSN-AUKUS**, a conventionally-armed,

RAF Typhoon fighter jets arrive in Australia for Exercise PITCH BLACK



nuclear-powered submarine that will be built and operated by both Australia and the UK. This is based on the UK's next-generation design for a nuclear-powered submarine (SSN) that incorporates technology from all three nations, including cutting-edge US submarine technologies. The wider AUKUS Partnership also provides a unique opportunity to share expertise and build resilience with both the US and Australia. With a focus on the acceleration of near-term delivery of capabilities to meet our militaries' operational requirements, including in areas such as AI, cyber, hypersonics and counter-hypersonics, and undersea warfare, AUKUS is driving technological progress and improving interoperability with our closest partners. This will help us to maintain our technological and military edge in an increasingly contested and unstable strategic environment.

17. AUKUS offers many distinct advantages. First and foremost, it bolsters our **warfighting**

capability. It will give us the ability to deter future threats across all domains. SSN-AUKUS will deter threats in the underwater battlespace, protect our nuclear deterrent and our vital sea lines of communication, and fulfil a range of military tasks, including anti-surface and anti-submarine warfare, land attack and intelligence gathering. Second, AUKUS will enhance our **interoperability** – ensuring that three like-minded nations with shared interests on the global stage can work together even more closely. SSN AUKUS will be a truly global capability. Not just capable of operating in the Indo-Pacific, our capabilities will strengthen our contribution to NATO in Europe, and it will enable us to operate in the High North where the impact of climate change is opening new military and commercial shipping access to the North Atlantic. Third, AUKUS will help us share **research and development** across a portfolio of joint advanced military capabilities. Industrial collaboration provides access to some of the most advanced technology on the planet, while

also allowing us to integrate our supply chains and provide greater resilience at a time of growing costs and inflationary pressures.

18. The Royal Navy will **train submariners from the Royal Australian Navy**, jointly crew UK SSNs, and increase the number of deployments in the region in future years – building on the visit to Australia by HMS Astute in 2021. For the UK, the logic of evolving our current SSN replacement programme to SSN-AUKUS is clear. Our design, combined with US technology, will create a truly world-leading platform that the Royal Navy will use to build our capability in the Atlantic as well as further the UK's objectives around the world.

19. We will **work with our industry partners** to ensure that we are ready to seize the additional opportunities of AUKUS, building on the recent investment we have made in our submarine delivery. This will deliver thousands of jobs in the United Kingdom. In particular, Rolls-Royce UK will build the nuclear reactors for all of Australia's submarines. As part of this, Australia will make a proportionate financial investment into our submarine industrial base. Our partnership also delivers on our commitment to setting the highest nuclear non-proliferation standards.

20. The **Global Combat Air Programme (GCAP)** is a new partnership, announced by the Prime Minister in December 2022, between the UK, Japan and Italy, that brings East and West together to develop a new Combat Aircraft. This next-generation combat air capability, due to take to the skies by 2035, aims to harness next-generation technologies to deliver cutting-edge sensors, weapons and data systems. It is being designed to ensure

our ability to protect our interests and allies and partners, to retain control of the air, and to conduct crucial missions in contested environments, integrated with forces across air, land and sea, and interoperable with our F-35 fleet and allied aircraft.

21. GCAP aims to stay at the cutting-edge of advancements in defence technology – outpacing and outmanoeuvring our adversaries. Therefore, we are designing a capability with truly twenty-first century characteristics, including open systems architecture to allow rapid upgrade, machine learning to support human operators, and digital networks linking forces across air, land and sea to ensure operational advantage and augment our overall capabilities. The aircraft, which will start to replace the Typhoon from 2035, will provide the backbone of the RAF fighter force and sit at the centre of a wider system of capabilities, including next-generation weapons systems and uncrewed aerial systems.

22. The programme aims to harness the combined strength of our countries' defence industries, sharing expertise and costs and delivering at pace. It is supporting highly skilled jobs in all three countries, with over 2,800 people working on it in the UK alone, acting as a launch pad and a ladder for careers in highly skilled roles such as software engineering. It will contribute to the UK's world-class combat air sector, which employs more than 40,000 people directly and in the supply chain. It is strengthening our sovereign industrial base and driving innovation through large-scale investment in R&D, with MOD having invested well over £1 billion to date, with hundreds of millions more from industry. Together, we are investing in advanced industrial technologies such as digital design and additive manufacturing, as seen at BAE

HMS Queen Elizabeth leading a multinational Carrier Strike Group in the Indo-Pacific



System's Factory of the Future in Lancashire. The impact is being felt across the country, with key combat air hubs in the north-west, south-west and Edinburgh, making an important contribution to Levelling Up.

23. GCAP also plays a key role in supporting the UK's wider strategic aims. It is strengthening Atlantic-Pacific links, deepening collaboration between key partners, and seeks to deliver a shared capability reinforcing security in both regions. GCAP, like AUKUS, is a multi-decade endeavour with partners who share our assessment of the international environment and will help to preserve an open and stable international order.

The world beyond

24. The IRR set the United Kingdom the goal of establishing the broadest and most integrated presence in the **Indo-Pacific** of any

European nation, building on our many ties, both historic and contemporary, and driven by our economic ambition as the world's sixth largest economy: half of all global growth is expected to come from this region between now and 2050. Historic connections in the **Middle East and Africa**, including through the Commonwealth, require us to maintain our ties, deepen cooperation and seek opportunities for closer partnerships; the threats from terrorism in those regions, and the destabilising behaviour of some state actors, also mean we need to continue to work closely in support of our partners' own capacity and regional resilience. We continue to recognise the importance of strategic dialogue with partners in **Latin America**, notably Brazil, Chile and Uruguay, as well as the **Caribbean**, particularly in support of the defence and security of our Overseas Territories. We will continue to support our partners in the **South Pacific** and **South Atlantic**, and will support the delivery of the Government's Small Island Developing States

(SIDS) strategy through delivering programmes combatting illegal fishing and providing support in response to climate change.

Indo-Pacific

25. We support the vision for a free and open Indo-Pacific, in line with our values and the values of many of our partners, and our position as a permanent member of the United Nations Security Council. The ‘tilt’ to the Indo-Pacific has been a whole-of-government effort, requiring an alignment of our defence activity to our diplomatic, commercial, industrial and technological strengths as part of a cohered approach to the region. We have more than delivered on the defence commitments we made to the tilt. Since 2021, we have:

- Increased our persistent presence in the region. We have deployed two Offshore Patrol Vessels to the Indo-Pacific on a permanent basis. In their first year of operation, they enforced UN sanctions against North Korea, worked with the Fijian government to combat illegal fishing, delivered Covid vaccines to Pitcairn, and

provided humanitarian assistance to Tonga following the January 2022 Tsunami.

- Demonstrated our hard-power reach to the region through the deployment of the aircraft carrier HMS Queen Elizabeth and her Carrier Strike Group in 2021. This was a journey of 55,000 nautical miles which stretched from the Eastern Atlantic to Japan and back, and involved UK military and diplomatic engagement with more than forty nations, including the first ever tri-service military exercises between the UK and India. The Carrier Strike Group will return to the Indo-Pacific in 2025, representing the UK’s commitment to exercise the best capabilities our Armed Forces have to offer alongside partners in the region.
- Expanded our engagement across the region. This has been achieved through an expanded network of Defence Attachés, as well as regular deployments and training visits, including the participation of Typhoon aircraft in Exercise Pitch Black in Australia in 2022 and the Army’s exercises in Australia, Republic of Korea and with Five Power Defence Arrangements (FPDA) partners.



26. We will now maintain the progress we have made, **putting the tilt on to a long-term, strategic, sustainable footing, including through delivering on our campaigning approach**: strengthening our presence, deepening our partnerships, robustly defending international norms and values, and helping grow regional resilience. In his visit to Singapore in June 2023, the Defence Secretary restated our commitment to promoting prosperity and stability in the region.

27. Our existing military footprint includes our base in the British Indian Ocean Territory, the British Army presence in Nepal and Brunei, British Defence Staffs in Singapore and Australia, and a network of attachés across the region.

28. We will work to enhance the resilience and capabilities of key partners through training and military exercises. This will include pulsed deployments of both equipment and people to the region. The Littoral Response Group will be ready to periodically deploy to the Indo Pacific from later this year. In June 2023, the Defence Secretary reinforced that, given upholding the open international order requires a collective effort, we will deepen our investment in **regional groupings**, including the Five Power Defence Arrangements (FPDA), ASEAN (we have applied to join the Defence Ministers' Meeting Plus) and the Five Eyes partnership. We also remain committed to supporting the strengthening of NATO's relationships with its partners in the region.

29. We will also strengthen our **bilateral cooperation** with partners in the region, including through industrial collaboration, continuing to provide a spectrum of capabilities

and valued expertise that complements those of our other allies and partners.

30. **Australia and New Zealand** are amongst the UK's closest and longest-standing partners, bound together through shared history and values, as well as through the Commonwealth and the Five Eyes partnership, and now – for Australia – AUKUS. The UK will work closely with both countries across the full breadth of our shared agendas.

31. **Japan** is one of our closest security partners in the Indo-Pacific, with a shared approach to security challenges and a commitment to an open international order. Building on the deepened capability and technological cooperation through GCAP, and the recently signed Hiroshima Accord, the Reciprocal Access Agreement with Japan will allow our forces to deploy to one another's countries for large scale exercises and operations. Underpinned by a commitment to interoperability, under the Reciprocal Access Agreement we will develop an ambitious programme of larger, more frequent, complex, and practical joint exercises and planning, including through the future deployment of the UK's Carrier Strike Group to the Indo-Pacific. Recent agreements with Japan represent a generational opportunity to deepen our strategic relationship across a spectrum of areas. We will reinforce our current defence governance structure, including through establishing a new high level defence dialogue, to ensure that we pursue all opportunities to strengthen defence cooperation.

32. **India** is a key partner and growing our relationship will remain a significant component of our engagement in the region. We intend to work together in the Western Indian Ocean and we also recognise the important role India has

to play on the global stage. We will seek to deepen industrial partnerships, move capability collaboration to new levels, and explore shared export opportunities, building on the UK-India 2030 Roadmap.

33. We will also pursue deeper bilateral defence relationships with other countries in the region. This will include the **Republic of Korea** and **Indonesia**, with whom we have Defence Roadmaps, **Singapore, Vietnam** and **Pakistan**. And we will talk to China about peace and stability in the Indo-Pacific and the need for China to play a responsible global role.

The Middle East

34. The Middle East reflects a nexus point for Defence's priority campaigns. It is critical to Euro-Atlantic security and prosperity, not least as a result of the region's importance to global energy supplies, and given Iran's destabilising behaviour. Maintaining an enduring presence in the Gulf will underpin our long-term commitment to the Middle East; through our presence there, we will also be able to place our engagement in the Indo-Pacific on a long-term strategic footing. We have strong relationships with each of the six countries in the **Gulf Cooperation Council**, and will continue to develop these **strategic partnerships** – bilaterally and as a group – to help make the region safer and more secure, including through enhanced dialogue, increased interoperability through exercises and training, and greater defence industrial capability cooperation. Through the **Dragon Group** we will convene the military Chiefs of Staff from the six GCC countries, Iraq, Jordan, and Egypt, to develop a shared understanding of regional security issues.

35. Our long-standing relationship with **Saudi Arabia** will be enhanced through the UK-Saudi Defence Cooperation Plan, as well as the commitment to develop a future combat air partnership, delivering a future-facing partnership anchored in industrial cooperation and bound together through shared capability development and increased interoperability. The UK-**Oman** relationship is deep and historic, underscored by our sizeable contingent of Loan Service personnel and the development of a defence strategic hub which provides a world-class training facility and reach into the Western Indian Ocean. Our relationship with **Qatar** will continue to grow through our Memorandum of Understanding and our two joint air squadrons – the only such joint squadrons in the world – as well as by expanding the relationship in the Land domain. We will continue working with **Bahrain** – not least given the presence of a key naval support facility and our leading role in the multinational Combined Maritime Forces – the **United Arab Emirates**, and **Kuwait** to protect our shared interests and develop our capabilities: we remain bound together by military cooperation, energy partnerships, trade and investment, and our people-to-people links.

36. We will also continue to deepen our relationships in the **Levant**. **Israel** will remain a key regional – and broader geopolitical – actor, and we will continue to develop our bilateral defence relationship. We will maintain our commitment to Operation INHERENT RESOLVE and the NATO Mission **Iraq** (NMI), a non-combat advisory and capacity-building mission, supporting Iraq's sovereignty and territorial integrity. Our enduring relationship with **Jordan** will also be deepened, including through our Loan Service and deployed training teams.

Chapter 8:

Strategic Resilience

1. Defence has a critical part to play in protecting the homeland, and in making the nation more resilient. This includes bringing to bear core capabilities that only Defence can access, for example, to defend our airspace and to protect sub-surface and onshore critical national infrastructure. It also requires close integration with the rest of Government in areas such as cyber defence, economic security, and responding to the challenge of climate change.

2. **Prevailing in war is a national effort**, involving not just Defence, but all of Government, our industrial base, and our population. Our strategic resilience comes in part from our ability to mobilise at scale our military resources in a time of crisis in response to threats to our homeland. Our Reserves, with specialist skills and unique connections, will be at the heart of this effort, forming the core of the second- and third-echelon forces that will reinforce and sustain warfighting capabilities and protect the homeland. The **Strategic Reserve** – built around the ex-regular reserve forces – will add further depth of capability, able to generate previously unassigned surge capacity and wider access to expertise in time of crisis or national emergency.

3. Our strategic resilience will also draw on our transformed **partnership with industry** in creation of a more resilient, reliable and adaptable industrial base – as set out in Chapter 3; and through our engagement with close partners including Finland and Sweden, from whom we can adapt **Total** and **Comprehensive Defence** models. It will

also come from work led elsewhere in Government, but to which we will lend our support, for example in **Defending Democracy** and **countering mis- and disinformation**.

4. Given the deteriorating security situation, our need to strengthen our resilience and protect critical national infrastructure is increasing. We will work with our partners across Government to **plan and test how we would better identify vulnerabilities, and exercise our systems, to secure and defend the homeland in times of war**. By taking steps now, we will strengthen our preparedness, and enhance our deterrence for the future. Our national resilience extends across the whole of the United Kingdom and we will continue to engage closely with all the Devolved Administrations on Defence matters.

Civil Contingencies

5. The UK's Armed Forces form an integral part of the Government's effort to counter the threat from terrorism and other emergent crises – at home as well as overseas. The Army and Navy provides **explosive ordnance disposal teams** across the country to help safely dispose of conventional munitions and improvised explosive devices. The Army also contributes 2,600 personnel at two-day readiness to support homeland resilience, including specialist capabilities and armed police backfill under Op TEMPERER, with further support available from other Services,



to provide support to the Police in the event of a terrorist incident which goes beyond their capacity or capability for response.

6. We will continue to **support the civil authorities** more generally and will hold forces at high levels of readiness to respond to a wide range of national events and crises. The COVID-19 pandemic saw the UK's Armed Forces provided an unprecedented level of support to domestic departments. However, the deterioration in the international security environment means that it is of paramount importance that Defence focuses on its core role of ensuring the national security of the UK. To enable this, it will be important to ensure that the support Defence provides domestically is limited to tasks that only Defence can perform.

Defence of the Homeland

7. The RAF continues to work alongside other Services, partners across Government and NATO, to protect our skies, space and seas from the increasingly frequent activities undertaken by Russian aircraft, satellites, ships and submarines. Only Defence can **police UK airspace** through providing 24/7 Quick Reaction Alert (QRA) Typhoon aircraft, supported by Voyager air-to-air refuelling aircraft and the Air Surveillance and Control System. P8 Poseidon maritime air patrols also protect UK waters, both above and below the surface, covering hundreds of square miles in a single mission. In the five-year period to April 2023, UK QRA has been scrambled on seventeen occasions to intercept Russian long-range aviation patrols and in response to sixteen other UK air security incidents. The RAF will continue to develop its counter-

QRA in action, with RAF Typhoons and Swedish Gripen (out of shot) intercepting Russian aircraft close to NATO and Swedish airspace





New multi-role ocean surveillance (MROS) vessel, named RFA Proteus, in Cammell Laird shipyard

UAS programme to provide fixed-site defence to deployed forces and defence-critical sites.

8. Our anti-submarine and sea-bed warfare capability has been enhanced with the rapid procurement of multi-role ocean surveillance (MROS) vessels, the in-progress build of Type 26 global combat ships, and a suite of uncrewed systems: these will further **enhance protection of the undersea and seabed infrastructure** that is essential to the UK's economic and energy security. The two dedicated MROS vessels – the first of which will join the fleet in summer 2023 – will operate cutting-edge remote and autonomous offboard systems for underwater surveillance and seabed warfare, vital to our national security.

9. We will continue to **collect and process vast amounts of data** covering the maritime domain around our shores. We will use a growing variety of highly capable collection capabilities and situational awareness

systems, including surveillance software, coastal radar, aviation operations, space-based reconnaissance, and government vessels to provide up-to-date, accurate information to senior leaders. As the development of autonomous and remote technology continues, there is a need to ensure that this technology is introduced to the marine environment safely without compromising our wider national security.

10. The challenge of protecting ourselves against attack from the skies, both overseas and at home, is at its most acute for over thirty years – as evidenced in the war in Ukraine. To counter these threats, we will step up our efforts to deliver an **Integrated Air and Missile Defence** approach. Doing so will provide a major contribution to homeland defence and national resilience. As the lead service for Integrated Air and Missile Defence, the RAF will promote the use of advanced

ground-based, airborne, at sea and space-based sensors, and an extensive range of air and missile capabilities, including counter-UAS, to detect, protect and defend the UK.

11. We will modernise our approach to air and missile defence, both for our own forces and through integration with Allies. In addition

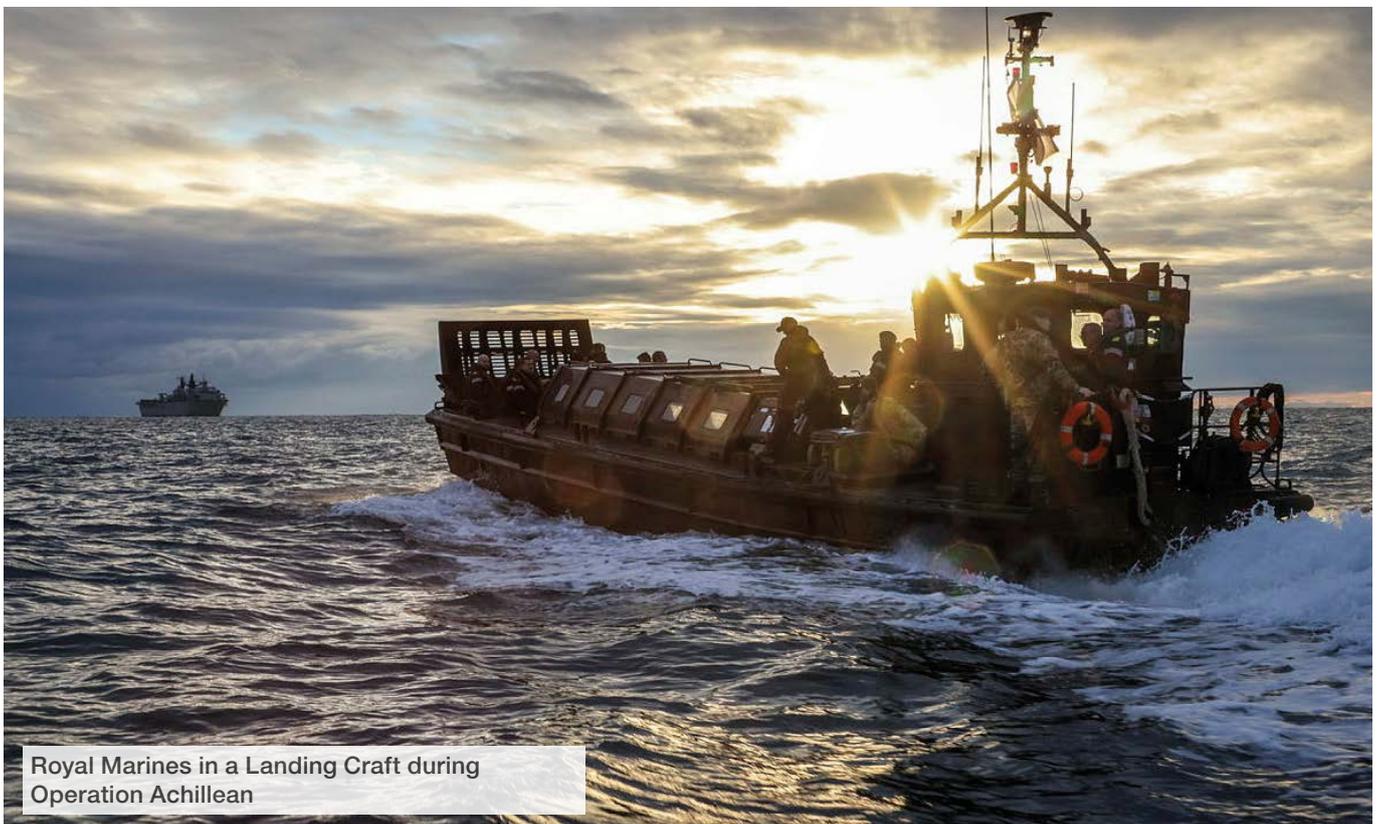
to our maritime Sea Viper Evolution **Ballistic Missile Defence (BMD)** programme and our voluntary commitment to contribute a UK BMD Radar to enhance the protection of NATO, we will also explore ways to build upon our offer to the Alliance, especially as we continue to invest in next-generation capabilities on Land, in the Air and at Sea.



HMS Dragon fires a Sea Viper off the Hebrides Isles

12. We will continue to invest in the most **cutting-edge technology**, including the Sky Sabre air defence system, through collaboration within AUKUS, and with R&D channelled through the UK's Missile Defence Centre into the **detection and interception technologies of the future**. We will also work to boost our ability to eliminate threats before they are launched through more targeted approaches to counter-proliferation, and by continuing to develop our own offensive capabilities. We will also increase our resilience across Defence by **improving the mobility and dispersibility of our forces**, continuing to update and **replace our radar network**, exploring development of a suite of sensors, and moving away from fixed sites to having a more distributed – and therefore resilient – network across the homeland.

13. There are also many areas where Defence will **act in support of the rest of Government in building our national and homeland resilience**. Given our experience of the pandemic, cyber-attacks, and Russia's malign manipulation of energy supplies, Defence will support a wider Governmental effort to better anticipate, assess, prevent, mitigate, respond to, and recover from risks. We will work with other Government Departments to implement the 2022 Resilience Strategy, which sets out the Government's plan to strengthen the underpinning systems and capabilities for resilience. In doing so, we will support the Government's push towards protective and preparatory action ('security through resilience') – building our deterrence by denial.



Royal Marines in a Landing Craft during Operation Achillean

Economic Security

14. The IRR reaffirmed that Economic Security is a key lever in systemic competition between states. During recent years, we, and our key allies, have seen the emergence of an increasingly sophisticated and evolving set of economic security threats from hostile states – with significant implications for Defence. Since publication of DCP21, Defence has built an enhanced capability to **identify and mitigate a range of economic security risks**. A large part of this is focused on support to the Government’s National Security and Investment Act 2021, ensuring that **investment in Defence-relevant sectors of the economy** is screened in a timely way, with potential risks to our national security identified and mitigated.

15. Recent work has identified that the range of threats extends beyond attempts to acquire sensitive Defence-related technology and capability. Risks exist through the targeted use by hostile states of **research collaboration, employment of defence and technical experts** from the UK, and the **use of business partnerships** and technical support contracts that include the transfer of specialist defence knowledge. This knowledge transfer can be used to boost the military capabilities of our adversaries and undermine our effectiveness. The civil-military fusion strategy employed by some adversaries highlights that the risks to Defence extend beyond the immediate defence industrial base. We will reconfigure our capability within Defence to allow us to contribute to addressing the full range of potential threats. Defence’s activities in this area form part of the Government’s overall

response to economic-based threats and complement other work in Defence to protect against physical threats, espionage and cyber-attacks that may be used in conjunction with economic threats.

16. The MOD will also continue to support wider Government efforts to shape the G7’s economic security agenda and contribute to policy development on **access to critical materials**. Confidence in the robustness of our supply chains and the **protection of our capabilities** is essential for future cooperation with allies and to ensure that UK companies can maintain access to the defence and security programmes of other states. Defence is strengthening collaboration and information-sharing with our closest allies to this end, including through the multi-national defence National Technology and Industrial Base (NTIB) forum, which is working to promote **increased cooperation in supply chain security, access to critical materials, and information sharing on trans-national economic security threats**.

17. An integrated approach to deterrence and defence requires us to develop new levers to adapt to the changing threat environment, and integrate existing levers, including our economic capabilities. We will work collaboratively with other departments to implement an integrated approach to **economic statecraft** across Government. We will use our experience of scenario-modelling and wargaming to inform the way economic statecraft activities are orchestrated, as part of a wider, evidence-driven approach to deterrence. This will include the development of a new analytical framework and supporting tools to embed economic statecraft principles into the planning and execution of Defence activities.



ISBN 978-1-5286-4291-0
E02937467