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Securonomics:

The contribution of a Defence Industrial Strategy

By William Freer and Paul Mason

New geostrategic thinking for a more competitive age
https://www.geostrategy.org.uk

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Foreword

Britain finds itself in an uncertain geopolitical environment, and as such the country must be prepared and capable of deterring its adversaries. In a similar vein, the United Kingdom (UK) has struggled with more than a decade of limited economic growth and a disjointed industrial strategy.

As Britain rearms, the economy will grow. But critical to the rearmament process is the design of the future Defence Industrial Strategy (DIS), which must overcome current barriers facing the sector and begin to reshape the structure of an industry which has, for many years, been geared to a peacetime environment.

It is clear that for Britain to be safe and prosperous, the ties between His Majesty's (HM) Government and the defence sector should be reinvigorated. This is an issue which HM Government has been pushing hard for over the last few months and will continue to do so with a new DIS later this year.

This report, co-authored by Paul Mason, a journalist specialising in economics and defence, and William Freer, an expert in national security, explores how an approach based on securonomics could enhance both Britain's security and prosperity. By providing an overview of the important economic and deterrent contributions the UK's defence sector can make, and providing suggestions as to how HM Government can implement the objectives outlined in the DIS Statement of Intent, it represents a welcome contribution to the formulation of the upcoming DIS.

This Report continues the critical work of the Council on Geostrategy's Strategic Advantage Cell, established to explore how Britain can induce 'strategic advantage' and strengthen the country's global standing. Its findings and recommendations provide detailed and well-argued points which will be useful to policy makers and key members of the defence sector alike.

The Lord Mountevans JP

688th Lord Mayor of London (2015-2016)

Executive summary

CONTEXT

- Recent developments signal that rearmament and an active Defence Industrial Strategy (DIS) should become a matter of priority for the United Kingdom (UK):
  - Britain has committed to spend 2.5% of Gross Domestic Product (GDP) on defence by 2027, rising to 3% in the next Parliament;
  - The Trump administration has signalled its desire for European North Atlantic Treaty Organisation (NATO) allies, including the UK, to lead on security in Europe;
  - The geopolitical environment has worsened and will continue to deteriorate: to ensure Britain is able to deter its adversaries, His Majesty's (HM) Government should (with clear priorities) build up its industrial, technological and scientific capacity;
  - Global defence spending is increasing fast; by hundreds of billions of pounds over the last few years. Many allies lack expertise and/or capacity; this presents a huge opportunity for UK defence exports.

- HM Government has placed a high priority on delivering economic growth. It intends to pursue a 'securonomics' approach: a contemporary British application of modern 'supply-side' economics, using state direction to 'crowd in' private investment to designated key sectors.

- The return of peer threats and the conduct of operations in Ukraine have highlighted how the ability to stay abreast of rapid technological change will be crucial to deterrence and conflict, demanding a closer and more adaptable relationship between HM Government and the defence sector.

QUESTIONS THE REPORT ADDRESSES:

- This paper seeks to address four key questions in relation to the design and delivery of a new DIS, based on what the DIS-Statement of Intent (DIS-SOI) outlined, namely:
    1. Is the new policy outlined in the DIS-SOI feasible and coherent?
    2. What are the barriers to executing it?
    3. What are the toughest choices to be made?
    4. What are the short-term actions which, if taken now, could generate long-term strategic advantage?

KEY FINDINGS

- The UK defence sector has a strong base to grow from, but there are structural obstacles to seizing the opportunity. Capital is mobile and Britain's major allies and partners are also pursuing explicit strategies to attract defence investment. In addition, Britain's defence consumption is relatively small compared to the global opportunities defence firms face.

- The Ministry of Defence's (MOD) procurement behaviour (slow, complex, risk averse, unpredictable) is seen by firms to enhance risks, counteracting HM Government's desire to de-risk private investment. Though the UK is an attractive defence investment destination (due to stable governance and innovative business culture) its human and physical capital requires investment to compete, e.g., transport, housing, energy and education.

- Senior representatives of the defence sector view the top risks to the sector's ability to deliver growth as: 1. Unclear long-term signalling, for example on capability priorities and funding levels; 2. Skills shortages; 3. Feast and famine contract cycles; 4. High energy costs; and 5. MOD requirements shifting over the course of a competition.

- HM Government is right to promote securonomics as the way to build resilience and prosperity, but should do so with vigour and clarity: with new institutional levers at the level of research, finance and state direction.

- The toughest choices to be made are those preoccupying the Strategic Defence Review (SDR): in which domains, theatres and technologies, and with which allies to focus the UK's resources? Concomitantly, which capabilities, theatres, and allies is Britain prepared to deprioritise?

RECOMMENDATIONS

The recommendations of the report are framed around the objectives established in the six priorities of the DIS-SOI:

1. **Design of the 2025 Defence Industrial Strategy (DIS2025):** It should be a ten-year strategy written as a mission statement for the National Armaments Director (NAD) with an overarching principle of growing the UK's defence industrial base and designing new capabilities to be scalable.

2. **Prioritise UK-based businesses:** DIS2025 should clarify definitions and outline concrete mechanisms through which UK-based businesses will be prioritised, and how HM Government will champion British components for use in allied supply chains. A clear target should be set for the percentage of the MOD's equipment/services budget to be directly spent with Small and Medium Enterprises (SMEs) by 2030; and for the percentage of SME subcontracting Primes should aim for from their own spend by 2030. The new SME Hub should be empowered to help achieve these goals, modelled on the levers and incentives used by the United States' (US) Department of Defence's (DOD) Office of Small Business.

3. **Forge partnerships:** HM Government should proactively support the presence of UK defence firms in the markets of key partners, and where possible seek to leverage the know-how of allied industry to onshore production in Britain. In addition, HM Government can learn lessons from the upsides and downsides of the complex weapons Portfolio Management Agreement 2 (PMA2) and develop new long-term portfolio arrangements in other capability segments such as in space capability and shipbuilding.

4. **Generate certainty and stability:** Always-on/continuous low-rate production should be built into procurement contracts to maintain supply chains and skills. In addition, a long-term financial settlement with HM Treasury; clear and comprehensive equipment pipelines; and public technology roadmaps.

5. **Seize the future:** Research and Development (R&D) funding should be centralised into a single Innovation Finance Vehicle to streamline MOD funding and knowledge of the innovation landscape: the size and length of awards should be increased. The Department for Education (DfE) and MOD should explore the creation of a University Tech Alliance to deepen Further Education (FE) involvement and alignment. HM Government should create a Defence Technology Institute, jointly funded by government/industry.

6. **Improve skills:** HM Government should inject funding into the Further Education sector to double the number of students studying engineering at T-Level and the DfE should formalise the Science, Technology, Engineering and Mathematics (STEM) club initiatives in schools.

7. **Access to capital:** Through the British Business Bank, HM Government should create a Long-Term Investment for Defence Fund, modelled on the Long-Term Investment for Technology and Science (LIFTS) scheme, and it should create a specific Defence Policy Bank.

8. **Governance:** The responsibilities and relationships of new institutions should be clearly defined. The Defence Industrial Joint Council (DIJC) should meet quarterly, with a problem-centric agenda where participants can not only exchange information and raise problems, but also suggest policy and create task forces to unblock problems.

1.0 Introduction

> *The fact was that our forces were insufficiently equipped to meet the dangers with which we now were faced. It was abundantly clear that we must spend substantially more on defence if we were to play our full part under the North Atlantic Treaty. Public opinion had come to recognise this very clearly during recent weeks.*[1]

The Attlee government is famous in the United Kingdom (UK) for many significant and long-lasting achievements, including the founding of the National Health Service (NHS) and of the North Atlantic Treaty Organisation (NATO). What is less well known is that in 1950, it instigated a significant rearmament programme. As the above quote suggests, there are many similarities between the problems which faced the Attlee government of 1950 and the problems facing His Majesty's (HM) Government today.

The British economy was still in recovery after a major global shock (in the form of the Second World War); as a result HM Government's fiscal firepower – and its ability to continue to enact its ambitious social democratic agenda – was under heavy strain. Informed by their experience of the failure of deterrence in the 1930s, the key figures within the Attlee government were determined to prioritise defence. They did so while fully aware that their progressive reforms would crumble without adequately deterring and constraining the Soviet Union.

Today, the situation is different, but many of the core problems are similar. The geopolitical environment is worsening and Britain's armed forces – following years of underinvestment – are in need of regeneration. To compound this need, the United States (US) – which has long maintained a sizeable military presence in Europe, including many of NATO's key enablers – has made it clear the region will be deprioritised to focus on the Western Pacific. This US pivot, and its desire for Europeans to lead on European security, has long been signalled. Many uncertainties surrounding the future of Russian aggression in Ukraine remain, but what is clear is that Britain must rearm, and devote

[1] 'Conclusions of a meeting of the Cabinet held at 10 Downing Street, SW1, on Tuesday, 1st August 1950 at 10am', National Archives: CAB 128/18 CM (50).

considerably more resources to the armed forces, the defence industry, the research base and the infrastructure underpinning them.

On the 25th February, Sir Keir Starmer, Prime Minister, announced plans to increase defence spending to 2.5% of Gross Domestic Product (GDP) by 2027.[2] This, and the stated aim to reach 3% during the next Parliament, is a welcome move, but the geopolitical situation will necessitate further increases sooner rather than later. For comparison, the UK's Cold War defence spending averaged 6.3% of GDP.[3] Though the threat from Russia is not as great as the vast Soviet legions stationed in central Europe, Britain in 2025 will be rearming from a much reduced defence base compared to 1950.[4] Aiming for 3% by the early 2030s is a step-change from the figures of the 'peace dividend' era, but global events may result in this target being revised upwards and the target date being brought forwards. The Defence Industrial Strategy (DIS) should have scalability built into its design to lay the groundwork for future uplifts in investment.

Investing in Britain's defence industrial strength will not only bolster deterrence, it will also help to kick-start growth in the economy. The 1950s would see both the volume of UK defence exports and economic growth skyrocket; the decade would be the second-fastest period of growth for post-war Britain with an average annual growth rate of 3.2% (just behind the 1960s with 3.4%).[5] Increased defence spending and economic growth are not mutually exclusive.

This report examines the challenges facing the 2025 Defence Industrial Strategy (DIS2025), currently being formulated alongside the Strategic Defence Review (SDR). It will be an important test case for HM Government's 'securonomics' approach – a fact which is understood within the Ministry of Defence (MOD), HM Treasury and 10 Downing Street.

Some steps advocated in this Report have already been signalled, as HM Government takes urgent action to put the UK on the footing needed for a period of intense geopolitical uncertainty. But in the scramble for urgent action, the UK needs to ensure what emerges is coherent, and matches the wider goals of mission-led government. The next DIS should

[2] Joshua Nevett and Jonathan Beale, 'Starmer cuts aid to fund hike in defence spending', *BBC News*, 25/02/2025, https://www.bbc.co.uk/ (checked: 14/03/2025).
[3] 'SIPRI Military Expenditure Database', Stockholm International Peace Research Institute, No date, https://www.sipri.org/ (checked: 14/03/2025).
[4] *Ibid.*
[5] 'National accounts at a glance: A summary of recent trends and movements within the UK economy', Office for National Statistics, 30/10/2020, https://www.ons.gov.uk/ (checked: 14/03/2025).

address the unavoidable questions: how would Britain's capabilities and industry scale in a peer conflict, and how does HM Government shape the defence industry to give the UK the ability to act, alongside partners, to ensure Euro-Atlantic security?

However, simply investing more is only part of the solution. To generate strategic advantage (see: Box 1), the outputs of the defence sector need to be greater than the sum of their parts. This has long been recognised, but requires bold decisions to make a reality. Alongside increased investment, reforms to defence industrial policy and defence procurement should be introduced to create a more coherent and efficient sector. Crucial to this will be radical clarity on clear areas of focus for British defence policy.

Box 1: Strategic advantage

In the Primer entitled 'What is strategic advantage?', the Council on Geostrategy defined strategic advantage as: the ability to induce catalysts to help secure, more efficiently and effectively, national objectives.[6] Strategic advantage is derived from catalysing the resources and instruments at the state's disposal – in other words, its national strengths – to generate a strategic effect which is more potent than if the catalysts had not been devised.

The Council on Geostrategy expanded this definition further with a typology which divides strategic advantage into four forms, which are not mutually exclusive:

- **Amplifiers**, which increase strategic effect;
- **Multipliers**, which broaden strategic impact;
- **Accelerators**, which speed up strategic success;
- **Extenders**, which further strategic reach.

The goal of this Report is to provoke debate and challenge as the new strategy is finalised, and to suggest early actions which HM Government can take to make it work.

[6] Gabriel Elefteriu, William Freer and James Rogers, 'What is strategic advantage?', Council on Geostrategy, 23/11/2023, https://www.geostrategy.org.uk/ (checked: 14/03/2025).

This Report's guiding thread is that aligning security goals with economic goals, at a time of extreme geopolitical uncertainty and breakneck technological change, requires increased funding, clearer central direction and active support of innovation; all of which necessitates a much closer relationship between HM Government, the defence sector, and the scientific and Further Education communities.

2.0 What is securonomics?

Rachel Reeves, Chancellor of the Exchequer, first used the term 'securonomics' in May 2023. She described its aim as:

> Forging a new partnership between an active state and dynamic open markets; fostering a new era of global partnerships between nations with shared values and interests…with the goal of making hard work pay for working people in Britain once again.[7]

Framed as a British application of modern supply-side economics, the approach was honed in Labour's pre-election growth mission statement, which pledged that the incoming government would use state direction to 'crowd in' private investment to designated key sectors, with the aim of achieving the highest growth in the Group of Seven (G7) by the end of the decade.[8]

HM Government intends to use signalling, regulatory certainty and targeted public investment to direct private investment towards innovative sectors; spread growth to neglected regions; and attack structural barriers to growth. To this end, it published Invest 2035, the economy-wide industrial strategy green paper, which identified defence as one of eight priority sectors.[9]

However, the headwinds to securonomics are strong. HM Treasury is close to its self-imposed ceiling for borrowing, setting limits on any growth-driving investment it can do. Externally generated inflation has obliged the Bank of England to maintain interest rates at a level which bears down on growth. The fiscal situation is worsened by the fact that global demand is weak and decades of offshoring, deskilling and poor productivity have left the UK with a narrowed industrial base. For many years, the impact of these factors was counteracted by high net inward migration leading to GDP growth, but this has become politically unacceptable and is scheduled to fall. The low growth environment has

[7] Rachel Reeves, Speech: 'Securonomics at the Peterson Institute, Washington DC', Labour Party, 24/05/2023, https://labour.org.uk/ (checked: 14/03/2025).
[8] '5 Missions for a Better Britain', Labour Party, 24/02/2023, https://labour.org.uk/ (checked: 14/03/2025).
[9] 'Invest 2035: the UK's modern industrial strategy', Department for Business and Trade, 14/10/2024, https://www.gov.uk/ (checked: 14/03/2025).

led to risk aversion among investors meaning 'crowding in' for any sector is hard to achieve without proactive de-risking policies in place.
For economists, the goal of industrial strategy is brutally simple: to move people, capital and resources from low-value sectors of the economy to high-value sectors. Defence is clearly one such sector.[10]

As global demand for military goods is growing, and because there are proven growth multipliers arising from defence spending, the UK defence sector can play an outsized role in achieving HM Government's growth mission. Bain & Company, for example, calculate that each £1 billion spent on defence generates £2.2 billion in economic value for the UK, and supports 15,000 jobs.[11] Bain's research shows that the defence sector achieves top-quartile Gross Value Added (GVA) and productivity returns, including a 2.2x multiplier on investment. The economic case and the security case for defence investment are aligned, as the new government recognises.

However, in such conditions, the process of sectoral reallocation is inevitably 'sticky': consumers, investors, firms and workers have ingrained behaviours which are hard to shift through policy alone. And some headwinds to investment in defence are stronger than in the civilian economy.

[10] Josh Bivens, 'The industrial policy revolution has begun, but another is still needed', Economic Policy Institute, 18/05/2023, https://www.epi.org/ (checked: 14/03/2025).
[11] Subash Viroomal, Roland Sonnenberg and Nigel Cornish, 'Unlocking the Full Value of UK Defence Spending', Bain & Company, 03/2024, https://www.bain.com/ (checked: 14/03/2025).

3.0 What is HM Government trying to achieve?

In opposition, Labour produced a scorecard (unpublished) of the 2021 Defence and Security Industrial Strategy (DSIS2021) and concluded that it was neither well designed or well executed, nor achieving its aims. The intended 'virtuous circle', whereby government investment in Research and Development (R&D) triggers private investment and export growth, had failed to kick in.

The new government's vision for change is embodied in the Defence Industrial Strategy Statement of Intent (DIS-SOI), published by the MOD in December 2024.[12] Its aim is to send a clear market signal in advance of the completed strategy, through a statement of strategic aim and a list of six priorities. The strategic aim is for the defence sector to become 'better, more integrated, more innovative, and more resilient'. The six priorities are to:

1. Prioritise investment in UK-based firms;
2. Create long-term partnerships with both firms and allied governments;
3. Generate certainty and stability through clear signalling of long-term intent;
4. Focus on future technologies where Britain can achieve leadership;
5. Spread defence investment across all regions of the UK;
6. Achieve economic deterrence, by showing the UK can regenerate armed force under stress.

To achieve this, the MOD intends to reconfigure its institutional relationship with the defence sector. There will be a Defence Industrial Joint Council (DIJC), replacing the Defence Suppliers Forum and drawing in a wider mix of firms, research institutions and the trade unions. Within the MOD, there will be a 4* National Armaments Director (NAD) with responsibility for procurement across all domains and services, who will oversee DIS2025.

[12] Defence Industrial Strategy – Statement of Intent', Ministry of Defence, 02/12/2024, https://www.gov.uk/ (checked: 14/03/2025).

In addition, since the DIS-SOI was issued, geopolitical changes have triggered numerous immediate decisions - for example a commitment to a Small and Medium Enterprise (SME) workshare percentage for MOD work and the decision to unlock the National Wealth Fund for defence investment.[13] Though these are welcome moves, it is important that HM Government adopts and communicates a clear methodology, since in the long term it is only by matching industry and armed forces to geostrategic goals that the UK will prevail.

This Report asks: firstly, is the new policy design feasible and coherent? Secondly, what are the barriers to executing it? Thirdly, what are the toughest choices to be made? And finally, what are the short-term actions which, if taken now, could generate long-term strategic advantage?

The obvious place to begin with is geopolitics – because as the UK rearms its forces and retools its industry, its allies and partners are doing likewise; its adversaries are trying to thwart it; and the US is engaged in a major refocus towards the Indo-Pacific, which puts pressure on the UK as a nuclear power to lead and organise Europe.

[13] 'New measures to boost small businesses benefitting from UK's defence investment', Ministry of Defence, 03/03/2025, https://www.gov.uk/ (checked: 14/03/2025).

4.0 The geopolitical context

The geopolitical environment is worsening, but this started many years ago with the rise of Russian revanchism and the People's Republic of China's (PRC) militarisation in the late 2000s. Although many leaders in free and open countries tried to ignore these trends for as long as possible, the post-Cold War era of relative predictability and global peace is now indisputably over.

The wider global environment, one defined more by competition and conflict than cooperation and peace, represents a set of challenges to HM Government not seen for several decades. But it also comes with fresh possibilities for the UK to renew its strength and help shape the future international order, alongside like-minded allies and partners, in accordance with its interests.

The global situation reinforces the need to pursue a securonomics approach – an approach which does not create a closed economy but which does create a far more resilient one: an economy whose vulnerabilities the UK's adversaries will find it harder to exploit, which is better shielded from global shocks, and which British citizens know is worth defending.

The ability to deter, and if necessary defeat, adversaries during this new era will require significantly more resourcing than was needed from the 1990s to the 2010s. The UK's adversaries have stolen a march in modernising and expanding their forces and in investing in future military technologies.

Before the full-scale Russian invasion of Ukraine, the UK was the third highest defence spender in terms of GDP per capita in NATO. It has now fallen to ninth (see: Table 1) and, without uplifts greater than those already announced, will decline further as time passes.[14] Britain should aim to be among the leaders in the technology arms race, and to fight for a larger share of the expanding defence export market.

[14] 'Defence Expenditure of NATO Countries (2014-2024)', NATO Public Diplomacy Division, 17/06/2024, https://www.nato.int/ (checked: 14/03/2025).

Table 1: Top 10 NATO defence spenders by % of GDP

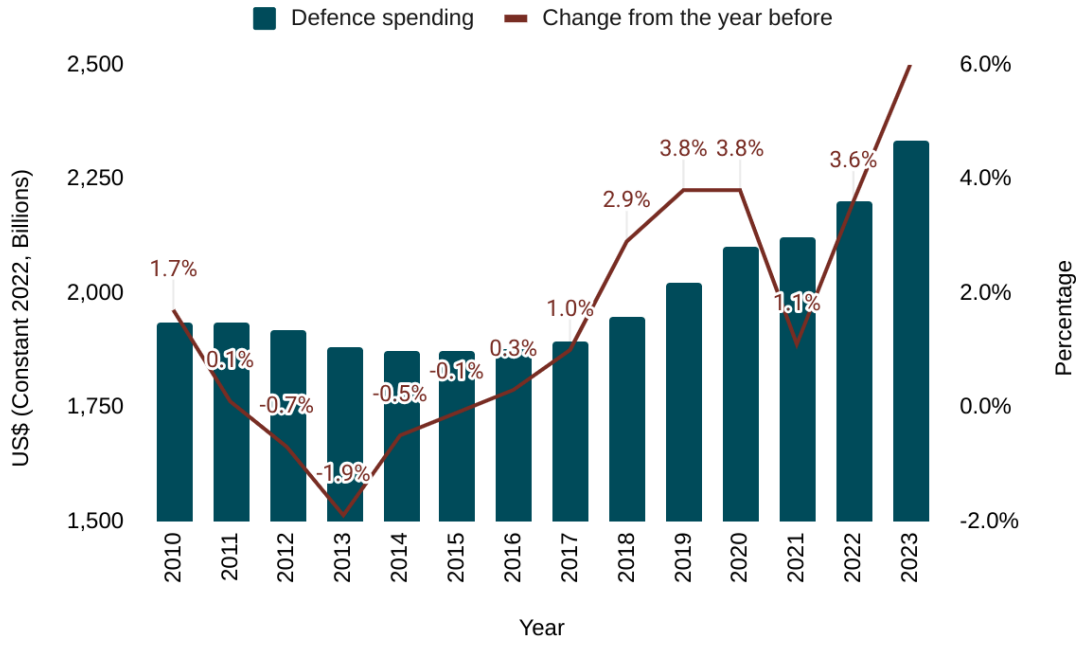
Rank	Country	2014 % of GDP	Country	2024 % of GDP	Position Change
1.	**US**	3.71	**Poland**	4.12	▲4
2.	**Greece**	2.22	**Estonia**	3.43	▲2
3.	**UK**	2.14	**US**	3.38	▼2
4.	**Estonia**	1.93	**Latvia**	3.15	▲23
5.	**Poland**	1.88	**Greece**	3.08	▼3
6.	**France**	1.82	**Lithuania**	2.85	▲23
7.	**Croatia**	1.81	**Finland**	2.41	▲3
8.	**Norway**	1.54	**Denmark**	2.37	▲9
9.	**Montenegro**	1.50	**UK**	2.33	▼6
10.	**Finland**	1.45	**Romania**	2.25	▲3

The world economy has struggled for growth since the Great Recession in 2008, with average annual growth coming in at 2.6% (to 2023).[15] For comparison, the 16 years prior to the financial crisis saw average annual growth at 3.3%.[16] The UK in particular was hit hard by the recession, with average growth of 1.1% since 2008 compared to 2.8% in the 16 years before.[17] Subsequent global shocks, ageing populations and tight fiscal situations in the larger economies have acted as brakes on global growth, yet global defence spending is on the rise.

Consequently, defence exports remain one of the most promising avenues for growth for the UK, an area where Britain has leading expertise but limited capacity. It is too often overlooked that much of the value of the UK's defence exports come in the form of subsystems and components. To seize the opportunity, HM Government should catalyse the efforts of the private sector to overcome constraints, such as the need for skilled workers, access to capital, and pull through of R&D to production. Chart 1 shows how total global defence spending has changed year-on-year since 2010.

[15] 'GDP growth (annual %)', World Bank, No date, https://data.worldbank.org/ (checked: 14/03/2025).
[16] *Ibid.*
[17] *Ibid.*

Chart 1: Global defence spending since 2010[18]



These significant defence spending increases look set to continue. Eastern Europe and East Asia – the epicentres of geopolitical competition – have seen the most dramatic increases. Between 2021 and 2024, European Union (EU) countries' total defence expenditure increased by over 30% to £270 billion, and is expected to rise by more than another £83 billion (in real terms) by 2027.[19] The extent of US retrenchment away from Europe remains to be seen: any large-scale withdrawal of forces would leave significant capability gaps. Estimates vary, but to fill these gaps, European defence spending could be required to increase by as much as £207 billion per year.[20] However, the US has signalled its willingness to support European allies to acquire and develop the necessary capabilities.[21]

The UK is widely acknowledged to have one of the world's most advanced defence sectors – especially in the maritime and aviation sectors – and an underappreciated but crucial role in the export of key

[18] *Ibid.*
[19] 'EU defence in numbers', European Council, 28/01/2025, https://www.consilium.europa.eu/ (checked: 14/03/2025).
[20] Alexandr Burilkov and Guntram B. Wolff, 'Defending Europe without the US: first estimates of what is needed', Bruegel Institute, 21/02/2025, https://www.bruegel.org/ (checked: 14/03/2025).
[21] Paul McLeary and Laura Kayali, 'US pledges to speed up arms sales to Europe', *Politico*, 13/02/2025, https://www.politico.eu/ (checked: 14/03/2025).

components. Many allies and partners are looking to modernise and expand their militaries, but limited defence expertise and capacity is slowing these programmes. Were Britain to invest in increasing its defence industrial capacity, and reform the sector to place a stronger emphasis on exportability (via less emphasis on 'gold plating' requirements, more exploration of opportunities to co-produce equipment, and expansion of the subsystem/component supply chain), the economic benefits could be considerable.

Box 2: South Korean defence exports case study

With the ever-looming prospect of conflict with Pyongyang, Seoul – even during the 'peace dividend' era – maintained a strong defence industrial capacity capable of supplying and reconstituting South Korean forces in a prolonged conventional conflict. As a result, South Korean exports in recent years have boomed. Over the previous decade, South Korean defence exports were typically valued around £2 billion per year. They surged to £13.7 billion in 2022, and £11.1 billion in 2023; South Korea is now one of the ten largest defence exporters in the world.[22]

The UK's European allies and the US are also stepping up state direction with new defence industrial strategies. The US' National Defence Industrial Strategy (NDIS) and the European Defence Industrial Strategy (EDIS) provide opportunities for British firms, but pose a design problem for UK DIS.[23]

Both the EU and the US have emphasised a strong preference for domestic production, and the EU is also attempting to defragment procurement across its members. These are realities to which DIS2025 must adapt. The UK should make the most of the fact that both the EU and the US have signalled a willingness to foster collaboration between allies. It is firmly in the interests of HM Government to maintain a foot in the door of both defence markets. In the US, this means expanding on the

[22] Hoshik Nam and Wilder Alejandro Sánchez, 'South Korea's Growing Role as a Major Arms Exporter: Future Prospects in Latin America', *War on the Rocks*, 21/08/2024, https://warontherocks.com/ (checked: 14/03/2025).
[23] 'A new European Defence Industrial Strategy: Achieving EU readiness through a responsive and resilient European Defence Industry', European Commission, 05/03/2024, https://defence-industry-space.ec.europa.eu/ (checked: 14/03/2025).

opportunities brought about by AUKUS Pillar II (especially now Congress has reduced International Traffic in Arms Regulations, or ITAR, barriers for Britain), leveraging US advanced capability expertise to onshore production in the UK where possible, and pushing hard to support British component use in American military equipment. In the EU, this means building upon the bilateral security agreements made in recent years (such as with France, Germany and Poland) and fighting for participation rights both in major projects and in any collaborative finance ventures, while simultaneously protecting the interests of UK defence firms.

5.0 Rapid technological change

Alongside the geopolitical challenge is the frenzied pace of technological change. There has been a blizzard of new capabilities such as First-Person View (FPV) drones, targeting algorithms and hypersonic missiles.[24] But it is important to remember that many of these capabilities are coming to fruition following years of investment in R&D, this being particularly true for more exquisite capabilities. For the defence industrial strategist, the challenge is to match the innovation cycle to that of the threat; to remain among the leaders in scientific innovation; to boost the rate at which advances in science can be translated into strategic advantage; and to boost manufacturing and commercialisation readiness levels. A key challenge for DIS2025 will be to nurture a 'balanced' defence sector which includes a wide variety of suppliers able to develop both low-end equipment (such as expendable FPV drones) and exquisite equipment (such as sophisticated long-range radars).

The Australian Strategic Policy Institute's (ASPI) Tech Tracker, for example, reports 'a stunning shift in research leadership over the past two decades towards large economies in the Indo-Pacific, led by China's exceptional gains'.[25] Out of 64 critical technology areas, the PRC now leads in 57. Though the UK remains in the top five countries in 36 technologies, that is a reduction from 44 over the past five years. In the most critical areas – for example AI, hypersonics, synthetic biology, stealth and quantum computing – there is a danger that, with the application of AI to the innovation process, countries with a tangible lead can become uncatchable, creating what ASPI calls a 'technology monopoly'.

[24] William Freer, 'Britain's hypersonic challenge: Strategic opportunities and risks', Council on Geostrategy, 10/09/2024, https://www.geostrategy.org.uk/ (checked: 14/03/2025).
[25] Dr Jennifer Wong Leung , Stephan Robin & Danielle Cave, 'ASPI's two-decade Critical Technology Tracker', Australian Strategic Policy Institute, 28/08/2024, https://www.aspi.org.au/ (checked: 14/03/2025).

Box 3: UK performance against its goals in Critical Technologies

The 2021 Integrated Review specified five critical technological areas for the UK: Artificial Intelligence (AI), Quantum Technologies, Semiconductors, Engineering Biology and Future Telecoms. This report mapped these against ASPI's Tech Tracker, which measures country performance in the publication of highly cited papers, and breaks the UK's five target areas, plus AUKUS relevant technologies, into 26 sub-categories.

UK scientific research achieves Top Five status in only 17 out of these 26 sub-categories.

Though ASPI measures only the influence of scientific research, Britain cannot turn such research into development, commercialisation and capacity if the UK does not produce it. This is in no small part due to the small scale of British R&D funding initiatives, which make it hard for pull through to production to occur.

Russia's war against Ukraine shows how wartime conditions catalyse innovation, and DIS2025 needs to embody its lessons. The innovation cycle in drone warfare is, anecdotally, between six and 18 weeks.[26] Software engineers regularly go to the front line to install upgrades. Both Russian and Ukrainian forces have also regularly adapted their more exquisite capabilities such as long-range strike missiles and tanks, highlighting the need for Britain to nurture a balanced defence sector capable of staying ahead across capabilities.

The Ukrainian Ministry of Strategic Industries directs priorities in real time, through 'round-table' meetings with contractors, and has taken stakes in several defence companies. Instead of channelling everything through a single ministry, those supplying solutions typically deal with brigade-level 'skunkworks'. Both the MOD and a raft of British businesses have plunged into this endeavour to positive effect. However, both the pace of non-Ukraine MOD procurement, and the wider pace of innovation, are perceived to lag behind the war-induced timetables of Ukraine.

[26] David Hambling, 'How the drone battles of Ukraine are shaping the future of war', *New Scientist*, 18/02/2025, https://www.newscientist.com/ (checked: 14/03/2025).

In addition, the proliferation of low-cost weapons (also highlighted by Houthi tactics in the Red Sea) has led to a renewed focus on the economics of warfare. The low cost of entry to these new technologies means military-industrial planners have to consider factors such as the economic damage done to the adversary relative to the cost of a capability. Meanwhile, rapid advances in civilian data processing and AI mean the integration of such technologies into military capabilities is critical.

If spiral development, modularity, and agile procurement are obligatory for survival in wartime, it is hard to imagine that DIS2025 can be designed without embedding them into a new core operating system. Likewise, the ability to scale production rapidly during a crisis, and to achieve 'always-on' production schedules with long-term contracts which support a diverse ecosystem of suppliers, becomes crucial. This in turn demands a restructuring of relationships between the UK's MOD, its traditional Prime contracting partners, R&D providers and the SME-dominated supply chain.

6.0 Barriers to execution

While the UK defence sector has a relatively strong base to grow from, there are structural obstacles to seizing the opportunity:

- Capital is highly mobile and Britain's major allies are also pursuing explicit strategies to attract inward defence investment. In all previous major conflicts, the UK could assume that investors were aligned with the national interest. Today, such alignment has to be won through market incentives;
- Several major allies retain government stakes in defence Primes, HM Government has divested most of its stakes;
- Britain's own defence consumption is small compared to the global opportunities for suppliers;
- Though the UK is an attractive defence investment destination because of its stable governance and innovative business culture, its human and physical capital requires major improvements if it is to compete for inward investment: transport, housing, energy and Science, Technology, Engineering and Mathematics (STEM) education are factors repeatedly cited as barriers to investment and operational expansion;[27]
- There is, both in defence and the wider business landscape, an absence of financial backers and institutions prepared to engage in the 'mezzanine' level of company growth. This has resulted in a deficiency in commercialisation readiness, where solutions which are ready for production may not be matched by the commercial maturity of the company itself. This is an economy-wide problem, not just a phenomenon experienced by the MOD's enabling agencies.

To address these challenges, the six priorities need to be executed in a way which incentivises global investors to increase their appetite for UK investment. This requires the UK to consider strategic partnerships in order to expand the scale of the potential market for new capabilities. This will require the development of a Strategic Industrial Participation Policy to encourage foreign companies to invest in Britain, and onshore

[27] Mann Virdee, 'How can Britain become more prosperous?', Council on Geostrategy, 27/08/2024, https://www.geostrategy.org.uk/ (checked: 14/03/2025).

industrial capacity and knowledge where possible (Australia's Industry Capability Programme could serve as a model to learn from).[28] At the finance level, it will necessitate new kinds of institutions to facilitate public-private partnership in the defence space.

The Chancellor's decision to unlock the National Wealth Fund for defence investment is welcome, but it may prove more effective to channel investments through specific vehicles - for example, a Defence Policy Bank; a Defence Technology Institute focused on co-funding new manufacturing infrastructure in the UK; and the Single Innovation Vehicle focused on early stage technologies, which was announced in principle last month. It will also require an economy-wide effort to improve skills, transport, education and access to the energy grid. Each of these challenges should be concretely addressed in DIS2025 and by the next iteration of *Invest 2035*.

As the MOD finalises DIS2025, it is important to identify the real obstacles rather than the imagined ones, through a mixture of qualitative and quantitative research. To this end, the Council on Geostrategy designed a questionnaire circulated to decision makers in the UK defence industry. Participants were asked to grade the likelihood and severity of a number of potential risks (identified in previous conversations with senior defence industrial figures) to the objectives of the DIS-SOI.

The risks to the defence sector's ability to help deliver economic growth which respondents believed were most likely to manifest were:

1. 'Feast' and 'famine' contract cycles;
2. Unclear long-term signalling (for example on capability priorities and funding levels) by HM Government;
3. Energy costs;
4. MOD requirements shifting over the course of a competition;
5. Skills shortages.

The risks respondents believed would have the biggest impact, were they to manifest, were:

1. Unclear long-term signalling by HM Government;
2. Skills shortages;
3. 'Feast' and 'famine' contract cycles;

[28] 'Australian Industry Capability Programme', Australian Government: Defence, no date, https://www.defence.gov.au/ (checked: 14/03/2025).

4. Energy costs;
5. MOD requirements shifting over the course of a competition.

These top five risks, both by likelihood and impact, should focus the minds of those designing and executing DIS2025, because they are backed by discussions with industry leaders. In addition to the survey data on barriers, wider discussions highlighted several recurring themes including:

- **Skills:** From the interviews, it is clear that the current bottlenecks lie in three production areas: welding, plating and electrical engineering. Numerous senior managers explained that the basic problem is the absence or shortage of Further Education training courses close to where defence industries are situated, with several colleges closing their courses for financial reasons. This, the industry sources suggest, is a bottleneck which could have knock-on consequences for years as the production workforce matures. Scope for the MOD and defence firms to co-develop and deliver curricula to educational institutions to resolve these issues should be explored.

  At the graduate level, the shortage of qualified engineers available to the defence industry arises from the following factors: the low percentage of women studying engineering (which narrows the talent pool); the attraction of engineering graduates to data analytics and quantitative analysis for consulting and financial companies; and peer pressure against defence as a legitimate career choice.

- **Access to capital:** Environmental, Social and Governance (ESG) investment criteria were sometimes identified as problematic, but a greater issue is the general risk aversion among investors due to the Basel III requirements.[29] Cashflow for defence firms is 'lumpy'; contractual risks are often high and borne by the supplier; anecdotally private equity in London is more risk averse when it comes to defence compared to other European capitals. As to the

[29] 'Basel III is an internationally agreed set of measures developed by the Basel Committee on Banking Supervision in response to the financial crisis of 2007-09. The measures aim to strengthen the regulation, supervision and risk management of banks.' See: 'Basel III: international regulatory framework for banks', Bank for International Settlement, no date, https://www.bis.org/ (checked: 14/03/2025).

'valley of death' problem in research commercialisation, it is clear that the UK structurally lacks the financial institutions prepared to take risks at this stage of company formation. Generally, there is a degree of impatience for a return on investment and this approach is a problem for defence firms, but the creation of the National Security Strategic Investment Fund is a good start in addressing this problem.[30]

This goes to the heart of the challenge for securonomics in defence. While it is possible to 'de-risk' investment through rules and incentives, the headwinds in defence are higher and so the de-risking actions have to be clearer and stronger than the rest of the economy. This in turn requires HM Treasury to recognise the high potential multiplier effects of defence investment in its own metrics. Signalling and regulatory certainty alone are unlikely to achieve the government's objectives.

For the cash-rich and deficit-prone US Government, de-risking under 'Bidenomics' was achieved with money: tax breaks, subsidies, state-backed loans, and joint and long-term investments. With the UK fiscally constrained, other forms of incentive to private capital will be essential in defence (such as via public-private partnerships).

- **SMEs:** Since many future capabilities will be modular and spirally developed, the SME role in delivering them will play an important role. At present, the MOD has a small SME Engagement Team but nothing on the scale of the US Department of Defence's (DOD) Office of Small Business Programmes, with 700 public servants and clear goals for Prime subcontracting with SMEs and direct DOD subcontracting (22.43% and 28% respectively for the 2024 financial year).[31] To achieve these goals, the Office of Small Business Programmes uses a combination of incentives including audits and scorecards for Primes which are factored into future DOD contracting decisions.

  HM Government's recent announcement to create an SME Hub and the commitment to a mandatory SME workshare

[30] 'National Security Strategic Investment Fund', British Business Bank, no date, https://www.british-business-bank.co.uk/ (checked: 14/03/2025).
[31] 'Small Business Programme Goals & Performance', Office of Small Business Programmes (US), no date, https://business.defense.gov/ (checked: 14/03/2025).

percentage are steps in the right direction.[32] This Hub should be modelled on the DOD's Office of Small Business Programmes, which promotes, monitors and enforces SME participation.

Above all, many in the defence sector lament the absence of a voice in the innovation process (and for most SMEs even a single point of contact with the MOD). Though many of their complaints arise from bureaucratic procurement rules, duplication of effort and speed of response – which the Defence Secretary has pledged to address – their most relevant request to the MOD is this: *specify the problem, not the solution* (a request which is strongly echoed by Mid-Tier companies and defence Primes).

Until the MOD allows Britain's highly innovative and specialised private sector to offer their own creative solutions to defence technological problems, and finds ways to combine this with the scalability and expertise offered by Primes, it is unlikely that the full potential of the sector will be unleashed.

[32] 'New measures to boost small businesses benefitting from UK's defence investment', Ministry of Defence, 03/03/2025, https://www.gov.uk/ (checked: 14/03/2025).

7.0 Deriving strategic advantage from the six priorities

Before HM Government can consider how a more effective DIS can be implemented, the objectives of the DIS-SOI must be fully established. The six priorities outlined in the DIS-SOI can be understood as actions and effects. Table 2 shows is an overview of the desired effects of the six priorities and how each can help the UK achieve strategic advantage:

Table 2: DIS-SOI desired actions, assumed effects, and how they generate strategic advantage

Action	Effect	Strategic advantage
Prioritise UK-based businesses	Ensure maximum UK GDP growth multipliers from MOD spending	Amplifies the impact of defence spending on the British economy
Forge partnerships	With firms: eradicate unnecessary competition and government-industry friction; With allies: achieve scale, technology/ knowledge transfer, boost export potential and manufacturing capacity	Multiplies Britain's efforts by bringing allies on board and Amplifies efforts to increase the industrial base with greater economies of scale
Generate certainty and stability	Boost investment, attract workers, smooth cash flow and order flow for businesses, creating more predictable risks	Accelerates industrial growth by allowing stakeholders to make and implement long-term plans

	and lowering cost of capital	
Seize the future	Boost productivity, drive exports, expand UK defence Intellectual Property (IP), maintain technological leadership against Britain's adversaries, 'stay in the game' of critical technologies alongside the UK's major allies, and move innovation management from 'cottage industry' to a single, world-class operation	Amplifies the UK's industrial output through productivity gains and Extends Britain's strategic reach by making British technology central to the systems used by allies and partners
Spread prosperity	Boost UK GDP and productivity by encouraging investment in regions where there are few defence jobs and facilities; enhance resilience against attack; and boost social cohesion by giving all communities a stake in the success of the defence industry	Amplifies the UK's industrial output through productivity gains and Accelerates growth by targeting areas with the most significant potential economic gains
Deter	Match British military deterrent capabilities with the ability to regenerate force at scale	Amplifies Britain's ability to deter adversaries by proving it could stay in the fight in a prolonged peer conflict

These are the right priorities, and if executed forcefully should produce strategic advantage within the lifetime of the strategy. But, in order to achieve this, the question of how to go about this in relation to each priority, to catalyse Britain's national resources, must be answered.

7.1 Prioritise UK-based businesses

The DIS-SOI declares the MOD's intention to 'promote UK based businesses for defence investment without losing the benefits of competition'. These two aims are difficult to achieve in tandem (unless there is strong competition within the supply chain).

Various models exist from other countries which successfully promote their own defence industrial base. For example, France and South Korea have in essence adopted 'national champion' defence firms (such as Dassault and KNDS or Hyundai Heavy Industries), which receive extensive government support and preferential treatment. Others such as Japan and Poland have adopted an approach which leans far more into co-production and co-development: for example, Japan's Mitsubishi Heavy Industries produces Patriot missiles under licence from Lockheed Martin and the Polish Armament Group plans to licence-produce Hyundai Heavy Industry K2 tanks.[33]

Some countries set mandatory percentage domestic workshare quotas, while 53 countries practice Offsetting – the requirement for foreign contractors to create domestic economic value equivalent to a percentage of the total contract value.[34]

Over the last 20 years, the UK has had no clear strategy for promoting UK-based businesses, instead choosing 'global competition by default'.[35] DSIS2021 replaced that with a 'case-by-case approach' which proved hard to read.[36] By focusing more of the UK's defence spend in Britain, the economic impact of defence spending will be greatly **amplified**.

[33] 'K2 tanks will be produced in Poland', Ministry of National Defence (Poland), 20/06/2024 https://www.gov.pl/ (checked: 14/03/2025).
[34] Norway's Offsetting rules, for example, are administered by a small sub-unit of the Royal Norwegian Ministry of Defence (RNMOD). See: 'Guidelines for Establishing and Implementing Offset in connection with Procurement of Defence Material from foreign Suppliers', Royal Norwegian Ministry of Defence, 09/2004, https://www.regjeringen.no/ (checked: 14/03/2025).
[35] Louisa Brooke-Holland, 'Defence procurement: challenges and reform', House of Commons Library, 13/09/2024, https://researchbriefings.files.parliament.uk/ (checked: 14/03/2025).
[36] 'Defence and Security Industrial Strategy', Ministry of Defence, 23/03/2021, https://assets.publishing.service.gov.uk/ (checked: 14/03/2025).

Part of the problem is that, although HM Government wants to 'onshore' production, it has often been unwilling to procure enough equipment to make such a proposition financially viable for defence firms: the New Medium Helicopter programme is a case in point.[37]

DSIS2021 specified three categories of sovereignty requirement in defence production: strategic – including Nuclear, Submarines, Crypt-Key and Offensive Cyber; those requiring onshore production for operational independence, including complex and novel weapons, Test & Evaluation, and Chemical, Biological, Radiological, and Nuclear (CBRN); and components of the land, maritime and information architecture.

In the heightened threat environment, when the ability to secure freedom of action may rely on the retention of sovereign industrial capability at a more granular level, these categories should be reviewed based on an assessment of risk in wartime.

However, to give a clear signal - both to its own procurement mechanisms and to the market - HM Government should adopt a clear decision making process. It can, of course, be varied due to ministerial directive or urgent operational requirement, but by outlining the criteria which will be followed, HM Government can establish a default behaviour the market can plan for.

Beyond this, as several defence firms have made the point in submissions to the MOD, the definition of a 'UK business' needs to be clarified, as does the definition of an SME. A significant number of Mid-Tier UK defence firms fall outside the SME category, meaning there is no clear function in government responsible for accelerating their growth to global scale.

7.2 Forge partnerships

The MOD's Portfolio Management Agreement with MBDA has been renewed.[38] Arrangements such as these offer both positive and negative effects. For example, long-term arrangements can encourage firms to deliver and sustain critical capabilities by giving industry certainty to invest, but too diverse a portfolio can create inefficiencies by reducing competition too much. Drawing on the lessons of the Portfolio

[37] Richard Thomas, 'UK confirms single tender for New Medium Helicopter "competition"', *Airforce Technology*, 10/10/2024, https://www.airforce-technology.com/ (checked: 14/03/2025).
[38] 'Battle-winning complex weapons for UK Armed Forces secured for another decade', Defence Equipment and Support, 22/07/2024, https://des.mod.uk/ (checked: 14/03/2025).

Management Agreement 2 (PMA2) agreement, similar approaches can be replicated in other sectors, for example space, land or energetics. Alongside AUKUS and the Global Combat Air Programme (GCAP), the UK is clearly moving into a 'partnership era'. But the downsides have to be actively managed.

According to MakeUK, there are 12,000 SMEs involved in the defence sector. They are among the most innovative and agile participants in defence, and employ a large part of the workforce, yet they repeatedly complain they have no voice and little pricing power in the market as currently structured. Both the US NDIS and the EU EDIS explicitly address greater SME participation, with the US defining clear goals and imposing an array of incentives and support measures for its own direct procurement from SMEs and Prime subcontracts.

Further to this, forming partnerships with allies will multiply the efforts of HM Government by helping to achieve scale (such as with the F-35 Lightning II and Eurofighter Typhoon), enmesh British technology/components in the equipment of allies (such as with the F-35 Lightning II), and boost export potential (such as with the Storm Shadow cruise missile). Partnerships with allies can also help to accelerate the UK's efforts to build up industrial expertise and capacity onshore by leveraging allied knowledge.

7.3 Generate certainty and stability

In discussions with industry, certainty and stability is the principal request. But achieving it means taking hard choices, which UK defence policymakers have been reluctant to do since the end of the Cold War. It is for the SDR to specify what the UK intends to focus on in the future.

Once the priority is clear, the NAD needs to signal at what level 'certainty and stability' will be applied. The Nuclear Enterprise, for example, gains certainty and stability by virtue of being excluded from five-yearly defence reviews. Certainty in the equipment priorities and long-term pipelines will accelerate efforts to increase defence industrial capacity by allowing for firms to make long-term decisions in establishing supply chains, pursuing R&D and recruiting workforces as early as possible.

Given the timescales involved in surface shipbuilding, there is a strong case for applying the same principle there – taking a decision as soon as possible on Type 83 class destroyers and Type 32 class frigates,

will allow yards to invest over a 10-15 year cycle rather than through guesswork. Likewise, a clear commitment to the type and scale of future combat air capability will go a long way to creating certainty in the UK aerospace sector where uncertainty (e.g., on the UK's original commitment to 138 F-35B Lightning II Joint Combat Aircraft) adds risk to supply chains.

Industry voices repeatedly ask for the publication of procurement pipelines and agreed technology roadmaps. But until the provision of such information is backed by consistent long-term investment by the MOD, the fear of cancellation, delay and scope-creep acts as a counterweight to any other de-risking efforts.

7.4 Seize the future

The principle here is sound, both for economic and geopolitical reasons. The technologies of the future will give the UK a decisive edge in battle. Promoting company formation and growth in such sectors increases the chance of UK SMEs and Mid-Tiers achieving bigger scale. And such technologies typically produce civilian and dual use applications which can amplify the prospects for broader economic growth.

However, if HM Government is serious about growing Britain's defence output at the leading edge of technological change – thereby extending the UK's strategic reach by ensuring access to British technology is vital to allies and partners – this means applying the principles of industrial strategy (state direction, subsidy, co-ownership, and strategic partnership) to a sector currently dominated by global market forces: Higher Education.

BOX 4: The PRC's 'Seven Sons' of National Defence

The 'Seven Sons' of National Defence are a group of leading Chinese universities with deep links to the defence industry, and are subordinate to the Chinese Ministry of Industry and Information Technology.[39] Up to half their PhD graduates go into the defence sector. All seven are accredited as complete

[39] Alex Joske, 'The China Defence Universities Tracker', Australian Strategic Policy Institute, 25/11/2019, https://www.aspi.org.au/ (checked: 14/03/2025).

institutions to take part in Top Secret weapons research. A total of 68 Chinese universities are part of the wider 'civil-military fusion' project.

The UK, by contrast, exerts no direct control over university R&D and operates through a network of grant funding research vehicles where universities bid voluntarily for work.

In addition, the current university funding model incentivises UK universities to recruit Chinese students, many of whom study the STEM subjects vital to the PRC's future national security goals, while UK defence companies face a shortage of employable UK engineering graduates.

Under current circumstances, the UK should not maintain a *laissez-faire* attitude to university defence research. Instead, HM Government should back strongly the right of universities to conduct such research, and use market incentives in ways which can leverage the strengths of British universities.

One of the most difficult challenges facing the DIS will be to *combine* the long-term, traditional procurement cycles needed for major platforms with a much more agile and less predictable endeavour to scale the UK's procurement of force multiplying innovations (such as via developments in AI, Cyber, or Electromagnetic Warfare).

7.5 Spread prosperity

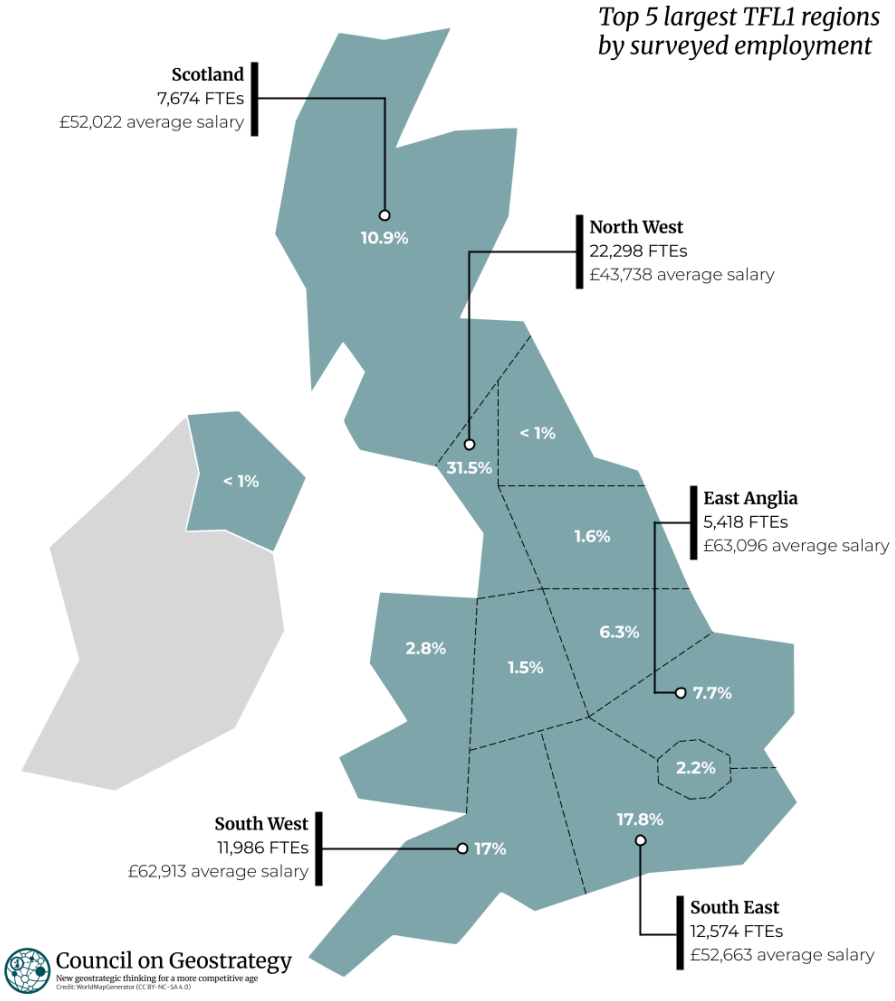
This goal could be critical in the achievement of HM Government's growth objective. In 2022, the median defence salary was £41,792, compared to £31,262 for all manufacturing jobs.[40] Productivity (one of the long-standing issues of the British economy) in defence is also spectacularly higher: £112,000 GVA per worker compared to the manufacturing average of £81,000. Focusing investment on a highly productive sector such as defence amplifies the ability of investment to generate a return.

Yet, such jobs are spread unevenly across the UK. According to JEDHub, North East England, the West Midlands and Yorkshire/Humberside each contain fewer than 2% of the defence

[40] '2024 Annual Economic Report', JedHub, 29/04/2024, https://www.jedhub.org/ (checked: 14/03/2025).

workforce, while North West England has 31.5% and South East and South West England combined have 34.8%, as shown in Figure 1.

Figure 1: Geographical distribution of defence sector jobs in the UK[41]



To accelerate growth, the government's Invest 2035 strategy will need to overcome the known obstacles to the defence sector: lack of availability of engineering training (which can be alleviated by re-training from adjacent industries), lack of access to the energy grid, inadequate transport and housing infrastructure, planning restrictions,

[41] *Ibid.*

and uncoordinated regional governance. Despite years of good intent, for example, Regional Defence Security Clusters (RDSCs) are only now in the process of formation in many areas; their function within the overall system of regional governance is not clear, nor is their relationship to the future DIJC.

As it attempts to spread defence investment, the MOD should be careful not to disrupt successful clusters and regional industrial cultures. But cities such as Stoke-on-Trent, mayoralties such as Tyneside, and all three devolved nations have strong industrial infrastructures and workforces with skills which translate well to the defence sector (such as the automotive industry) and which could respond to targeted inward investment if engaged at the right level of governance. In this context, specifying a national security and resilience duty for the new English Strategic Authorities would be an important clarifying step.

7.6 Deter

The defence sector makes a crucial contribution towards deterrence. It can demonstrate to potential adversaries that both Britain's conventional military and its industrial supply chain could withstand a period of high-intensity conflict. Without a sufficiently large and resilient defence industry, an adversary may believe they could instigate a confrontation in the knowledge that Britain could not stay in the fight for long.

A further consideration is that, unlike previous eras of intense geopolitical competition, most defence firms today experience recruitment problems arising from the delegitimisation of defence careers. Any strategy for scalability should accept the challenge of legitimising defence in the eyes of a generation which has never experienced peer threats.

For deterrence to be more comprehensive, this needs cross-Whitehall modelling and contingency planning against realistic scenarios. One has been spelt out by Donald Trump, President of the US: a 5% defence spending target. Another may be more disturbing: conventional war with a peer adversary. Yet, this was the planning assumption of HM Government in the 1930s, once the 'Ten Year Rule' was abandoned.

To amplify the ability of the defence industry to contribute to deterrence, HM Government should develop a rearmament model which

anticipates the bottlenecks which would result from a sudden defence stimulus; an investment programme alone can only contribute so much.

7.7 Resolve economy-wide issues

The DIS is only part of the solution. Many challenges, such as skills, infrastructure, access to capital and pull through will require economy-wide efforts involving numerous departments of state. One key lesson drawn from countries which execute this successfully is the importance of micro-institutions: the Further Education colleges, the STEM clubs, the 'back to engineering charities' aimed at young mothers, and the RDSCs (albeit the value of RDSCs is reduced if they do not have a clear focus).

For decades, the UK has lacked the ability to coordinate such institutions. Much of the over-specification and over-complication of defence contracts stems from a desire to micromanage in lieu of directing. Putting this right is an iterative process, at the centre of which has to be a culture of collaboration stretching from Whitehall to the factory floor.

8.0 Conclusion

HM Government is right to promote securonomics as the way forwards for the UK to build a more resilient and prosperous economy. This method will better prepare Britain for potential future geopolitical shocks and help catalyse its national power base. In other words, securonomics and strategic advantage are mutually supporting concepts. The defence sector has already been recognised as one of the most promising sectors for delivering economic growth. The mutual positive impact investment in defence will have on both national security and the economy indicates HM Government should view a well-designed rearmament programme as a matter of priority.

To maximise the potential benefits of such an approach, HM Government should pursue its securonomic agenda in the defence sector with vigour and clearheadedness. The DIS-SOI has provided a coherent outline from which a rearmament-focused DIS can be developed, but key obstacles to achieving it lie in:

- Treasury unwillingness to commit the long-term funding needed (and therefore also the ability of the MOD to offer long-term contracts);
- Economy-wide capacity constraints on skills, infrastructure, energy costs and access to capital;
- The fragmentation and slowness of MOD decision making;
- Risk aversion in the global finance system;
- Armed forces preference for 'gold-plating' requirements, micromanagerial design processes and aversion to either long-term contracts or follow-on continuous low-rate production.

Tough choices need to be made. In addition to progression with defence reforms, some of the toughest choices which will need to be made are those preoccupying the SDR: in which domains, theatres and technologies to focus the UK's resources, and with which allies to form long-term strategic partnerships? Concomitantly, which capabilities, which allies and which 'sacred cows' is Britain prepared to dispense with? The short-term decisions which could yield the biggest long-term strategic advantage are indicated in the 'Recommendations' section.

Britain's defence industrial might has been allowed to atrophy for too long. The volume (not the value) of UK defence exports in the 1950s was over 300% what it is today.[42] The challenge of rebuilding this crucial component of deterrence will not be easy: three decades of cashing in on the 'peace dividend' has atrophied capacity. Yet, the current situation represents an opportunity as much as a challenge. Global defence spending is on the rise and many of Britain's allies are desperate for military material – whether finished products or access to key components for their own equipment.

The UK has found itself in a tense geopolitical environment before, and it has managed to secure its interests and protect its security even in the most trying of times. Key to all these moments, whether it was the 1900s, 1930s, or the 1950s, was the decision – no matter the fiscal situation – to rearm. Victories in the First World War, the Second World War, and the Cold War are testament to the fact that the right decisions were made.

In the next iteration of DIS, it is important that the commitments come in the form of a direct task, from the Secretary of State for Defence to the NAD with clear success metrics and reporting lines. Rather than a collective declaration of an intention to do better, this time around the strategy needs to be an executable plan.

[42] 'SIPRI Arms Transfers Database', Stockholm International Peace Research Institute, no date, https://www.sipri.org/ (checked: 14/03/2025).

9.0 Recommendations

Based on the risks and opportunities identified in this report, a set of recommendations are designed to aid HM Government in formulating the DIS to secure strategic advantage across the six priorities of the DIS-SOI. To maximise strategic advantage to achieve its securonomics goals, HM Government should:

9.1 For the design of DIS2025:

- Draft DIS2025 as a mission statement for the new NAD, with quantifiable objectives, clear success metrics and a timetable for implementation. This will establish a clear line of responsibility for delivery.
- Conceive of DIS2025 as a ten-year strategy, scheduled for update in the mid-2030s.
- Ensure the overarching principle of DIS2025 is that, when the MOD commissions a new capability, it takes account not only of cost and technical compliance but its responsibility to nurture and grow the UK's defence industrial and research base.
    - For example, it should take into consideration whether a design exists which can be ordered in sufficient numbers to co-produce and co-develop in Britain (as was the case with Boxer), or to what extent 'gold-plating' can be reduced to increase unit numbers and increase export opportunities.
- Create unity of purpose between the MOD, defence firms, and their workforce, by stating precise effects and objectives, creating a common 'language of industrial policy' and a cadre of specialists who understand the challenge.
- Resolve the questions: How would new capabilities be produced at scale, together with ammunition, fuel, maintenance, and training, in a conventional conflict lasting longer than 90 days? And how would they be adapted at speed?

9.2 For prioritising UK-based businesses:

- Contain a clear definition of what constitutes a UK-based business, together with a review of the current definitions of a Prime Contractor, Mid-Tier and an SME.
- Outline the concrete mechanisms through which HM Government will prioritise the allocation of MOD spending to UK-based businesses, namely a cascading preference for:
    - Partnerships with UK-based companies and/or allied governments, designed to maximise UK economic value and security.
    - Developing a methodology for defining onshore workshare arrangements such as through a Strategic Industrial Participation Policy which would actively encourage foreign companies to invest in and develop industrial capacity and knowledge sharing in Britain.
- Establish clear channels through which HM Government will help champion UK components for allied equipment, building on the success British firms have had in enmeshing themselves in the supply chains of the finished products of allies; examples include engines, ejector seats, submarine components, soft kill decoys, actuators for aircraft engines and complex weapons, as well as myriad others.
- Set a clear target for the percentage of the MOD's equipment/services budget to be directly spent with SMEs by 2030, and clear targets for the percentage of SME subcontracting Primes should aim for from their own spend with SMEs by 2030.[43] HM Government should give the new SME Hub a formal toolkit of levers and incentives to help achieve these targets, modelled on the operations of the US DOD's Office of Small Business.
- Reduce energy costs for UK firms, helping make them more competitive internationally by:
    - Reforming the existing pricing model which sets prices nationally and is based on the most expensive source of energy used – even if that source only provides a marginal amount of energy; and

[43] 'MOD regional expenditure with industry 2023/24', Ministry of Defence, 21/11/2024, https://www.gov.uk/ (checked: 14/03/2025).

- Increasing cheaper domestic energy production through a combination of regulation reforms (the first welcome steps of which have already been taken) and investment.

9.3 For forging partnerships:

- Avoid the introduction of barriers, and reduce existing ones, to the participation of British firms in the defence markets of key allies and partners including those in North America, Europe, and the Indo-Pacific.
- Learn lessons from the pros and cons of the complex weapons PMA2 and develop long-term portfolio arrangements in other capability segments such as space, shipbuilding and land warfare.
- Explore the option of a joint shipyard partnership with Norway with the aim of expanding shipyard capacity in the UK. This will help facilitate the export of Type 26 class frigates to Norway without impacting Royal Navy in-service date pipelines.

9.4 For generating certainty and stability:

- Aim to build always-on or continuous low-rate production into procurement contracts beyond the initial numbers required. This will maintain supply chains and retain key skills and machinery, allowing for capacity to be surged if needed.
- Agree a rolling ten-year financial settlement between HM Treasury and the MOD.
- Publish clear equipment pipelines for every major capability area.
- Produce official technology roadmaps for each domain.
- Ensure contracts are designed in a way to allow for spiral development.
- Allow companies or consortia to bid to become part of a cross-functional team, where the MOD outlines the problem and the desired effect, rather than simply a requirements document.
- Restate and, if necessary, amend the critical technology areas where the UK wishes to achieve world-leading status.

9.5 For seizing the future:

- Centralise the MOD's funding of R&D and early stage company development into a single Innovation Finance Vehicle. The purpose of such a vehicle is not only to streamline funding but to centralise the MOD's knowledge of the defence innovation landscape, which is fragmented, and to form a single guiding intelligence for its innovation spend. The Innovation Finance Vehicle should be tasked with:
    - Raising the average size of awards;
    - Extending the average length of funding; and
    - Meeting challenging targets for pull through to production and commercialisation, including the right to pull the plug on projects which are failing, and to take stakes in high risk/reward endeavours.
- Explore, jointly between the MOD and DfE, the creation of a Universities Tech Alliance, whereby universities can volunteer for enhanced access to research funding by signing up to principles of responsible and ethical defence research, and by demonstrating high institutional resilience against hybrid aggression. The aim of this is to signal to staff, students and governance bodies alike that the university supports legitimate defence research, and will enthusiastically collaborate with the UK defence sector.

9.6 For improving skills:

- Inject funding into the Further Education sector with urgency, including a subject-related student allowance, to increase greatly the number of students studying engineering at T-Level (currently below 8,000).
- Create tailored defence industrial skills centres (e.g., a welding/plating training centre) in under-invested regions, using the DIJC to bring together employers, unions and training providers in a state-led initiative to overcome market failure;
- Formalise, via the DfE, the STEM club initiatives in schools, creating a national certification scheme incentivising learning in science areas appropriate to the priorities listed in the 2021 Integrated Review, and to national security.

- Aim for comprehensive regional provision of engineering T-Level courses by 2027, addressing the geographical scarcity which can mean that employers cannot find training locally, even in areas of current defence growth.

9.7 For improving access to capital:

- Create, through the British Business Bank, a Long-Term Investment for Defence Fund, modelled on the LIFTS scheme launched in 2024, which aims to de-risk pension fund investment into defence firms.
- Set up a specific Defence Policy Bank, through which stakes in new joint ventures and startup endeavours could be held.
- Establish a Defence Technology Institute, mirroring the Aerospace Technology Institute, which is part-fund, part-incubator, aimed at Technology Readiness Levels 4-6 and boosting manufacturing readiness in established UK businesses.

9.8 For establishing new approaches to governance:

- Define the responsibilities of new institutions in the industrial strategy framework – e.g., the UK Industrial Strategy Council, the DIJC and its subgroups, and the RDSCs – as well as their relationship to national and regional governance.
- Hold quarterly meetings of the DIJC. Its agenda should be problem-centric. It should be free not only to exchange information and raise problems, but to suggest policy and create task forces to unblock specific problems.
- Ensure the RDSCs have clear purpose, and have a formal relationship to the DIJC as well as to their newly devolved English Strategic Authorities and devolved nations.
- Empower the DIJC, under the guidance of the Defence Secretary and NAD, to set its own objectives and report publicly on progress towards them.
- Build workforce and skills provider representation at every level of the DIJC's activities.

Annexes

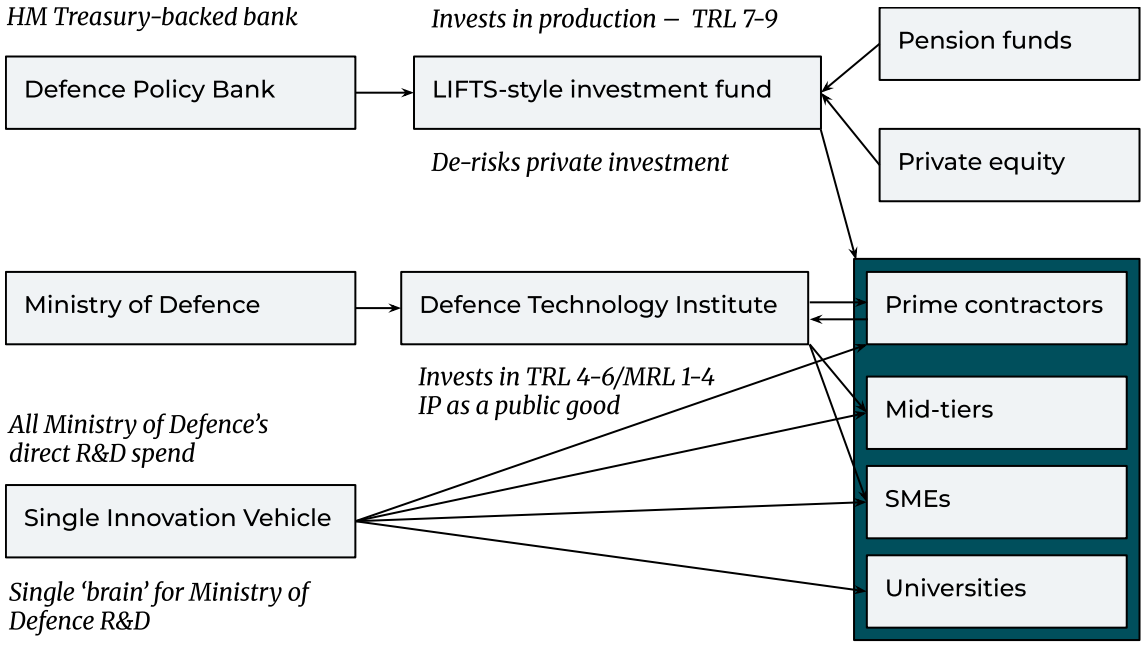
Annex I: UK performance in science and technology broken down by critical areas identified in 2021 Integrated Review and AUKUS technologies[44]

Category	Subcategory	Position in Top 5	Risk of PRC technology monopoly
Artificial Intelligence	Data Analytics	4	Medium
	Algorithms and Hardware Accelerators	-	Medium
	Machine Learning	-	Medium
	Integrated Circuit design and fabrication	-	Low
	Adversarial	-	Low
	Natural Language Processing	4	Low
Semiconductors	Advanced Magnets and semiconductors	3	Medium
	Wide/Ultrawide Bandgap semiconductors	-	Medium
Quantum	Cryptography	-	Medium
	Computing	3	Medium
	Communication	4	Low
	Sensors	-	Low
Engineering Biology	Synthetic Biology	5	High
	Manufacturing	5	Medium

[44] Dr Jennifer Wong Leung , Stephan Robin & Danielle Cave, 'ASPI's two-decade Critical Technology Tracker', Australian Strategic Policy Institute, 28/08/2024, https://www.aspi.org.au/ (checked: 14/03/2025).

	Antibiotics/Retrovirals	-	Medium
	Genetic engineering	4	Low
	Genomic sequencing and analysis	3	Low
	Nuclear medicine	-	Low
	Vaccines and medical countermeasures	3	Low
Future Telecoms	Optical	3	High
	Undersea Wireless	5	High
	Advanced Radiofrequency Comms	4	Medium
	Distributed Ledgers	4	Medium
	High Performance Computing	4	Low
AUKUS Technology	Autonomous Underwater Vehicles	4	High
	Electronic Warfare	4	High
	Air-independent Propulsion	-	Medium

Annex II: Potential joint-venture vehicles to support the defence contribution to securonomics



Source: Authors' own

About the authors

William Freer is Research Fellow in National Security at the Council on Geostrategy. He is also an Associate Fellow of the Royal Navy Strategic Studies Centre.

Paul Mason is an author, journalist and political researcher. He is also the Aneurin Bevan Associate Fellow in Defence and Resilience at the Council on Geostrategy.

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About the Council on Geostrategy

The Council on Geostrategy is an independent non-profit organisation situated in the heart of Westminster. We focus on an international environment increasingly defined by geopolitical competition and the environmental crisis.

Founded in 2021 as a Company Limited by Guarantee, we aim to shape British strategic ambition in a way that empowers the United Kingdom to succeed and prosper in the twenty-first century. We also look beyond Britain's national borders, with a broad focus on free and open nations in the Euro-Atlantic, the Indo-Pacific, and Polar regions.

Our vision is a united, strong and green Britain, which works with other free and open nations to compete geopolitically and lead the world in overcoming the environmental crisis – for a more secure and prosperous future.

Notes

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Dedicated to making Britain, as well as other free and open nations, more united, stronger and greener.

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Address: 14 Old Queen Street, Westminster, London, SW1H 9HP
Phone: 020 3915 5625
Email: info@geostrategy.org.uk