



Ministry  
of Defence

# Setting the context: current capability plans to enable Integrated Force 30

July 2022

# Introduction

1. The Equipment Plan 21 provides further detail on the changes made to the programme following the Integrated Review (IR) and Spending Review (SR). In this section we outline, per command/domain, the main capability plan over the next ten years to demonstrate where planned funding is focussed. Other than the significant increase in investment in our nuclear enterprise, largely driven by Dreadnought, our priorities for additional funding through the Integrated and Spending Review were focussed on the Future Combat Air System, Cyber, Space, Defence Digital and Weapons.
2. This annex outlines Equipment Procurement spend for each of the top-level budgets for category A – C programmes or projects<sup>1</sup>, as such it does not cover the majority of equipment that is in service as that is covered under support spend. Not all the capability areas listed within are full programmes, for example they may only be in the concept phase, nor has a final decision been made for all of them on the exact nature of the capability or funding level.

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1. Due to sensitivity this does not cover every Category A – C programme and the exact cost for some programmes is not included.

## Navy Command

3. Navy Command plan to spend £38.1 billion in the equipment plan over the next ten years, compared to £30.6 billion at the end of the previous planning round. New investment through the Integrated Review focused on improving the sustainability, lethality and availability of the fleet and delivering a modernised, high-tech, and automated Navy. This included investment in world-leading autonomous mine hunting capability to replace legacy platforms and increased air defence capability for our Type 45 destroyers. The most significant investment in the Navy was through the shipbuilding pipeline, a strategic, long-term investment that will increase the capability and size of the Royal Navy's surface fleet; further detail on this can be found within the National Shipbuilding Strategy.
4. The below table shows the Equipment Procurement spend for category A – C (value of over £50 million) programmes/ projects within the Royal Navy over the next ten or so years, it is not a complete list of all the areas in which Navy Command are investing nor does it cover the costs of in-service support.

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Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Underwater</b>	Spearfish Torpedo Upgrade (FUWWS Inc 1)	Upgrade programme for Spearfish heavyweight torpedoes	Manufacture	Ongoing	<£100m
	Sting Ray Mid-Life Upgrade	Upgrade programme for Sting Ray torpedoes	Concept	Ongoing	£200m-£1bn
	Multi-Role Ocean Surveillance Ship (MROSS)	To improve our ability to protect our underwater critical national infrastructure and improving our ability to detect threats in the North Atlantic	Concept	Ongoing	
<b>Above Water</b>	Type 83 Future Maritime Air Defence platform	Replacement for our Type 45 destroyers, due in service in the late 2030s	Concept	2030s	
	Type 31	A new class of lighter, flexible general-purpose frigates	Manufacture	Ongoing	£1bn-2bn
	Type 26	Delivery of the T26 Global Combat Ship	Manufacture (Batch 1 & 2)	Ongoing	£6bn+
	Type 32	Designed to protect territorial waters, provide persistent presence overseas and support our Littoral Response Groups	Concept	Ongoing	
	National Flagship	Designed to showcase cutting-edge British shipbuilding, engineering and technology, particularly clean maritime technologies	Concept	Ongoing	£200m-£250m
	Mine Hunting Capability – Block 1	Delivery of a safer, faster and automated Mine Hunting Capability (MHC), developed in partnership with France	Demonstration, Manufacture	Ongoing until 2025	£300m
	Mine Hunting Capability – Block 2		Assessment, Demonstration, Manufacture	Mid to late 2020s	£1bn+
	Maritime Electronic Warfare (EW) Programme	Containing two projects: 1. Maritime Electronic Warfare System Integrated Capability (MEWSIC) Project comprising various components such as radar electronic support measures sensors and EW command 2. Electronic Warfare Countermeasures Project	Concept	Ongoing	£400m-£600m

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Littoral Capability</b>	FCF investment – Block 1	Funding to develop our Future Commando Force as part of the transformation of our amphibious forces	Concept, Demonstration and Manufacture	Ongoing until 2025	£200m-£300m
<b>Support Vessels</b>	Fleet Solid Support Ships	Development of a fleet of Solid Support Ships that sustains the fighting capabilities of Maritime Task Groups; acting as a catalyst for the growth of the UK shipbuilding industrial base and supply chain; promoting the standards for environmental compliance and carbon reduction	Assessment	2020s-2040s	£1bn-£2bn
	Multi Role Support Ships (MRSS)	Development of MRSS to provide the platforms to deliver Littoral Strike, including Maritime Special Operations	Concept and Assessment	Funding until in service in 2030s	

## Army Command

5. [Future Soldier](#) is the plan for the most significant transformation of the British Army in a generation. The Army's Equipment Programme is a key part of the implementation of Future Soldier and the transition from an analogue Army to a digital, more connected Army which is fit to compete and win in the Information Age. The Army plans to spend £41.3 billion in the equipment plan over the next ten years, aiming to deliver an Army capable of conducting integrated multi-domain operations to project UK influence and deter adversaries as we compete short of conflict, and fight and win should deterrence fail. The "Integrated 8" modernisation and transformation priorities, to which major projects and programmes in the Land domain have been aligned, are set out in the Land Industrial Strategy.
6. The below table shows the Equipment Procurement spend for category A – C (value of over £50 million) programmes/projects within Army Command over the next ten or so years, it is not a complete list of all the areas in which Army Command are investing nor does it cover the costs of in-service support.

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Evolved Digital Backbone</b>					
<b>Land Environment</b>	MORPHEUS	Next Generation Tactical Communications	Concept	Ongoing until 2030s	
<b>Tactical Communications and Information Systems</b>	TRINITY – Battlespace Wide Area Network	Enables greater OpCIS range and bandwidth	Concept	Ongoing until 2030s	£5bn+
	Dismounted Situational Awareness	Provides enhanced situational awareness through a equipment and software to provide tracking and information sharing in real time	Concept	Ongoing until 2030s	
	Tactical CIS Support and Design Services	Support and Design services	Concept	Ongoing until 2030s	
	NIOBE – Deployable Tactical Information Exchange Hub	Tactical hotspots to enable greater range and bandwidth at Bde and BG level	Concept	Ongoing until in service in early 2030s	
<b>Long-Range ISTAR</b>					
<b>Land Intelligence, Surveillance and Reconnaissance</b>	WATCHKEEPER – Mid-Life Extension and AQUILA – Future Integrated Tactical UAS	Watchkeeper mid-life extension and AQUILA, a future tactical ISTAR capability	Concept	Ongoing until 2030s	£1bn+
	ZODIAC – Future Integrated Tactical ISTAR	Integration of ISTAR into the digital backbone	Concept	Ongoing until 2030s	
	SERPENS – Next Generation Weapon Locating System	Tactical weapon locating system	Concept	Ongoing until 2030s	

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Long-Range Fires</b>					
<b>Close Support and Deep Fires</b>	Land Deep Fires – GMLRS Enhanced Range and M270 recapitalisation	Modernising M270 and extension of range	Concept/ Manufacture	Ongoing until 2030s	£2bn+
	Dismounted Joint Fires Integrator and fire control systems	Delivers advancements in the integration of Joint Fires (fires delivered from Air, Land and Maritime platforms) producing target effect in the Land Environment	Assessment	Ongoing until 2030s	
	Close Support Fires – Tactical Guided Munitions	Guided munitions with increased range and accuracy that can be fired by current and future Close Support Fires platforms	Concept	Funding from 2023 onwards	
	Close Support Fires – Mobile Fires Platform	A Close Support Fires platform to replace AS90	Concept	Ongoing until 2030s	
<b>Air and UAS Defence</b>					
<b>Air and UAS Defence</b>	Land GBAD	Future Ground Based Air Defence capability, includes Short & Medium Range Air Defence and counter-UAS	Concept	Ongoing until 2030s	£1bn+
<b>Cyber</b>					
<b>Cyber</b>	Cyber and Electromagnetic Effects	Land Cyber Programme	Concept/ Assessment	Ongoing until 2030s	£250m-£500m



Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Next Generation Aviation Systems</b>					
<b>Next Generation Aviation Systems</b>	Apache Capability Sustainment	Modernisation of Apache to AH64E	Development/ Manufacture	Ongoing until 2030s	£4bn+
	Chinook Capability Sustainment	Modernisation of CH47	Concept/ Assessment	Ongoing until 2030s	
	New Medium Lift Helicopter	Project to rationalise five rotary wing requirements into a single aircraft type	Concept	From 2023	
<b>Next Generation Combat Systems</b>					
<b>Armoured Vehicle Pipeline</b>	AJAX	Armoured Cavalry Program delivering a medium armour and reconnaissance capability	Manufacture	Ongoing	£9bn+
	Challenger 3	Upgrade of Challenger 2 to Challenger 3	Development	Ongoing until in-service in late 2020s	
	Armoured Support Vehicle	Armoured C2 and Sp platforms (replacing the role filled by Bulldog)	Concept	Funding from 2025 onwards	
	BOXER Strategic Pipeline	Delivers a wheeled platform covering multiple different roles that forms the bulk of the Armoured Brigade Combat Team	Development/ Manufacture	Ongoing until 2030s	
<b>Protected Mobility</b>	Protected Mobility Pipeline – Protected Mobility Platforms, Multi-Role and General	Pipeline to provide the PM required across the Land Environment e.g. Future Battlefield Ambulances, C2 etc.	Concept	Funding from 2025 onwards	£1bn+
	General Support Utility Vehicles	Next generation of general support vehicles	Concept/ Assessment	Funding from 2025 onwards	

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Manoeuvre Support</b>	TITAN, TROJAN & TERRIER Mid-Life Upgrade	Midlife upgrade to T2 and TERRIER to extend service to 2040	Concept	Ongoing until complete in early 2030s	£1bn+
	TYRO – Bridging	Tactical Close and General Support bridging	Concept	Ongoing until 2030s	
	TRITON – Wide Wet Gap Crossing	Provides a WWGC capability replacing M3 RIG	Concept	Ongoing until 2030s	
	Explosive Ordnance Disposal and Electronic Counter Measures	Modernising EOD capabilities	Concept/ Assessment	Ongoing until 2030s	
<b>Logistics Support and Deployable Infrastructure</b>	Heavy Equipment Transport, Materiel and Bulk Liquid Distribution	Next generation of Land materiel lift, bulk liquids and equipment transportation	Concept/ Development	Ongoing until 2030s	£1bn+
	Deployable Infrastructure	Delivers Defence requirements for deployable infrastructure including fuel supply, power, shelter and plant equipment	Concept	Ongoing until 2030s	
<b>Soldier Lethality</b>					
<b>Light Forces, &amp; Individual Combat Lethality &amp; Protection</b>	Army Special Operations (ASO), Light Forces STA, Lethality and Protection	Delivery of ASO requirements and the modernisation of light forces equipment to include night vision, sighting systems, weapon systems and personal protective equipment	Concept/ Assessment	Ongoing	£500m-£1bn

## Air Command

7. Air Command plan to spend £36.2 billion in the equipment plan over the next ten years, compared to £34.7 billion at the end of the previous planning round. New investment through the Integrated Review focussed on making the Royal Air Force one of the most technologically innovative, productive, and lethal air forces in the world. New funding is supporting the Radar 2 programme to give Typhoon a powerful active electronically scanned radar, enhance the military flying training system through the use of synthetics and to bring the E7 Wedgetail into service. Moreover, a strategic investment of over £2 billion has been made in our Future Combat Air System over the next four years which is part of a budget of £8.65 billion out to 2030 although the ultimate amount we invest will depend on key programme choices.
8. The below table shows the Equipment Procurement spend for category A – C (value of over £50 million) programmes/ projects within the Royal Air Force over the next ten or so years, it is not a complete list of all the areas in which Air Command are investing nor does it cover the costs of in-service support.

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Combat Air</b>	Typhoon	Spiral development of Typhoon FGR.Mk 4	In-service & Development	2022-2040	£1bn+
	Lightning II (F35)	Procurement of additional F-35 aircraft over the 48 we are already committed to	In-service	2022-2035	£1bn+
	Future Combat Air Systems	Funding for the concept and assessment phase for FCAS to replace Typhoon in the mid-2030s	Concept, Assessment & Design	2022-2035	£8bn+
	European Common Radar System Mk2	Procurement of Typhoon Radar 2 to give Typhoon a world-leading Electronic Warfare capability	Assessment, Design and Manufacture	2022 until in service in early 2030s	£1bn+
<b>Air Launched Weapons</b>	AMRAAM	Advanced Medium Range Air-to-Air Missile stockpiles	In-service	Ongoing	£100m+
<b>Air Transport &amp; Air-to-Air Refuelling</b>	A400M	22 Atlas aircraft, Maintenance Centre and 2 Full Flight Simulators, rear crew synthetics and associated equipment	In-service with 20 of 22 aircraft delivered	2022 until all additional airframes and associated upgrades are in-service (later 2020s)	£1bn+
	C17 Globemaster	Enhancement of capability of our C17 Globemaster, Strategic over-sized lift military transport aircraft	In-service	Ongoing until early 2030s	£200m-£1bn
	Voyager	Contract to provide an Air-to-air refuelling tanker capable of air transport	In-service	Ongoing until mid 2030s	£1bn+

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Persistent Wide Area Surveillance (Maritime); Signal Intelligence; Tactical ISR; Armed ISR</b>	Airseeker (Rivet Joint & Ground System)	Extension of the Rivet Joint Cooperative Programme until 2035	In-service	2022 until out of service date in 2035	£200m-£1bn
	Maritime Patrol Aircraft (P8)	Future weapons portfolio and sonobuoy provision	Concept & Assessment	Ongoing	£1bn+
	Shadow	Upgrade programme	In-service & Development	Ongoing	£100m-£200m
	Protector	Securing ISD and armed capability	Manufacture & In-service	Ongoing	£1bn+
<b>Future Force GBAD &amp; Air Surveillance</b>	Counter small UAS	Investment in additional Counter-Small UAS capability	Concept, Assessment & Design	2022 until in-service in early 2020s	£100m-£200m
	Ballistic Missile Defence Radar	Ground-based BMD radar, which will enhance the coverage and effectiveness of the NATO BMD system	Concept, Assessment & Design	Funding from 2022 until concept, assessment and design phase ends in late 2020s	£200m-£1bn
	Air Defence Radar Recapitalisation	Replacement of aging radar systems and equipment; contractorisation of engineering support	In-service	Ongoing	£200m-£1bn
	Air Platform Protection	Aircraft defensive systems	In-service & Development	Ongoing	£200m-£1bn
	Marshall	Updates obsolete Air Traffic Management equipment and provides availability-based service outputs at airfields and associated sites in the UK and overseas	Manufacture & In-service	Funding until upgrades complete in later 2020s	£200m-£1bn
	Guardian	Upgrades the ground-based Air Defence C2 System in the UK and BFAI	In-service	Ongoing until in-service in early 2020s	£200m-£1bn

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Space Development</b>	Command and Control (C2)	More detail provided in the Defence Space Strategy	Concept & Assessment	Ongoing	£100m
	Situational Domain Awareness		Concept & Assessment	Ongoing	£100m
	Communications	Currently the Head Office Space Directorate Programme own the programme pending transfer to Space Command which is hosted in Air Command	Concept & Assessment	2023-2024 Onwards	£100m
	Control		Concept & Assessment	Ongoing	£100m-£200m
	ISR		Concept & Assessment	Ongoing	£200m-£1bn
<b>Synthetic Training</b>	Defence Operational Training Capability (Air)	GLADIATOR will enable the rebalancing of live training into the Synthetic Environment	In-service & Development	Ongoing	£100m
<b>Flying Training</b>	Military Flying Training System	The UK Military Flying Training System (UKMFTS) provides aircrew training to all branches of the UK Armed Forces to a standard for input to Operational Conversion Units (OCU)	In-service	Ongoing	£1bn+

# UK Strategic Command

9. UK Strategic Command (UKStratCom) are responsible for most capabilities that sit across all operational domains and are planning to spend £35 billion in the equipment plan over the next ten years, compared to £28.8 billion at the end of the previous planning period. UKStratCom received significant new investment, due to the Integrated Review, focussed on improving integration across domains and developing our digital and cyber capabilities. We increased investment in our intelligence capabilities, including through increased use of automation in the analysis of the vast amount of data we collect, in our cyber capabilities and in the transformation of our logistics and support of our forces.

We have also invested further in a Defence synthetic enterprise, better networked modelling and simulation capabilities and an increased pipeline of funding for our Special Forces will ensure that they continue to have the equipment and capabilities that they need to continue to undertake the most challenging operations. Moreover, UKStratCom has set aside £178 million in its equipment plan to respond to operational equipment requirements to mitigate unforeseen risks.

10. The below table shows the Equipment Procurement spend for category A – C (value of over £50 million) programmes/projects within UKStratCom over the next ten or so years, it is not a complete list of all the areas in which UKStratCom are investing nor does it cover the costs of in-service support.

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Networks and Services</b>	Next Generation Communications Network (NGCN)	A single Defence Enterprise Network to replace legacy fixed networks and become the foundation of the Digital Backbone which will provide the pan-defence communications infrastructure	Concept (legacy networks in-service)	Ongoing until early 2030s	£1bn+
	MODNet Evolve	MODNet Evolve will provide the hardware, software and service management capabilities that MOD personnel at base locations (UK and overseas) need	Concept & Assessment	Ongoing	£1bn+
<b>Data and Applications</b>	Digital Foundry	The Digital Foundry and Defence Artificial Intelligence Centre (DAIC) will assemble, cohere and exploit Defence data for the battle and business space, and advance Defence's physical and virtual automation and machine capabilities	Concept	Ongoing	£200m-£1bn
<b>Joint Crypt Key Programme</b>	Joint Crypt Key Programme	JCKP is a joint programme between the Ministry of Defence (MOD) and the National Cyber Security Centre (NCSC)	Manufacture/ In-service	Ongoing	£1bn+
<b>Simulation Enablers</b>	Defence Synthetic Enterprise Platform (DSEP)	DSEP provides a platform for the creation, deployment and evolution of digital solutions for Defence	Assessment	Ongoing	£200m-£400m
	Defence Synthetic Network (DSN)	DSN will provide the high bandwidth, low latency, resilient network to meet Defence's synthetic training requirements	Concept	Ongoing	<£100m



Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>ISTAR</b>	ODYSSEY	ODYSSEY will provide a common access portal with advanced data analytics to deliver an all-source intelligence data exploitation capability across Defence	Concept	Ongoing	£250m
	Mission Data for Information Advantage (MD4IA)	Improving the production and dissemination of Mission Data to support platforms and deliver information advantage	Assessment	Ongoing	<£100m
	Automation, Digitalisation, Data Exploitation and Robotics (ADDER)	ADDER is focused on optimising specific intelligence feeds and data types	Concept	Ongoing	£100m-£200m
	Machine Assisted Rapid-Repository System (MARS)	The MARS project will provide access to and exploitation of data for Military Intelligence	Assessment	Ongoing	<£100m
	AETHER	Ultra Persistent and Surveillance capability	Concept	Ongoing	£100m
<b>Space</b>	Alternative Navigation (AltNav)	Alternative Navigation methods in the event of disruption to global navigation satellite systems (GNSSs)	Concept/ Tech Demonstrator	Ongoing	<£100m
	SKYNET 6 Enduring Capability	The next era of SATCOM for the MOD	Assessment	Ongoing	£1bn+

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Defence Medical and Medical Operational Capability</b>	CORTISONE	MOD's Future Medical IS capability change programme	Various (Subject to sub-project element)	Ongoing	£100m-£200m
<b>Support Capability</b>	Business Modernisation for Support (BMfS)	A transformation programme to modernise the Defence Support Network (Information Services) capabilities	Assessment	Ongoing	£200m-£1bn
<b>Special Projects</b>	TIQUILA	Small tactical UAS	Concept	Ongoing	£100m-£200m
	CRENIC	Electronic Counter Measure programme	Assessment/ Demonstration	Ongoing	£500m-£1bn
	C-CBRN	Protective equipment and chemical sense	Concept	Ongoing	£150m-£250m
	SF Pipeline (Multiple elements)	Assured pipeline of funding to deliver specialist capabilities across 6 themes	N/A	Ongoing	£1bn+

## Strategic Programmes

11. Strategic Programmes is a set of equipment programmes, led by a team within head office. They are responsible for the procurement of Defence's Complex Weapons portfolio, test evaluation and training services. New investment, as a result of the Integrated Review, will be made in missile and sensor upgrades for the Type 45 Sea Viper system, in Directed Energy Weapons and in our test and evaluation capabilities.

12. The below table shows the Equipment Procurement spend for category A – C (value of over £50 million) programmes/projects within UK Strategic Programmes over the next ten or so years, it is not a complete list of all the areas in which Strategic Programmes are investing nor does it cover the costs of in-service support.

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>T&amp;E Futures</b>	T&E Transformation Programme	Programme transforming the Defence T&E enterprise making it fit for the 21st century	Concept	Ongoing	<£100m
	Long-Term Partnering Agreement (LTPA)	A 25-year contract between MOD and QinetiQ to deliver T&E and Training Support Services to the UK Armed Forces	In-service	Ongoing	£1bn+
<b>Complex Weapons pipeline</b>	Future Cruise Anti-Ship Weapons	A joint programme with France to deliver a sea and air-launched long range strike weapon	Assessment	Ongoing	£2bn-£3bn
	Brimstone 3A	A spiral development programme to incorporate software improvements, enhancing performance and operational capability	Manufacture/ Migration	Ongoing	£500m-£1bn
	Brimstone 3B		Assessment & Demonstration	Ongoing	£250m-£500m
	Martlet	Lightweight missile fitted to Wildcat helicopters for attack of smaller Fast Attack Craft	Manufacture/ Migration	Ongoing	£250m-£500m
	Meteor	Beyond Visual Range Air to Air Missile (BVRAAM) capability	In-service Typhoon & Integration contracted for F-35B	Ongoing	£500m-£1bn
	Meteor Mid-life Update		Assessment		
	Sea Venom	Heavyweight missile fitted to Wildcat helicopters for attack of larger Fast Attack Craft and Corvettes	Manufacture/ Migration	Ongoing	£250m-£500m
	Spear Cap 3	Primary air-to-ground weapon for F-35B Lightning and Typhoon	Demonstration	Ongoing	£500m-£1bn
	Sea Viper Evolution	Task Group Ballistic Missile Defence Capability for Type 45 Destroyers	Develop & Manufacture for Cap1, Assessment for Cap2	Ongoing	£250m-£500m

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Complex Weapons pipeline</b>	Land Precision Strike	Missile to engage mobile armoured targets at long range	Concept	Ongoing	£1bn+
	Sea Ceptor	Shorter range Air Defence missile for T-45, T-23, T-26 and T-31 using Common Anti-Air Modular Missile (CAMM)	Manufacture & In-service	Ongoing	£500m-£1bn
	SHORAD LMM (Lightweight Modular Missile)	Shorter Range Air Defence missile for the Army	Manufacture	Ongoing	£100m-£250m
	ASRAAM Blk6	Advanced Short-Range Air-to-Air Missile for Typhoon and F-35B	Manufacture	Ongoing	£100m-£250m
	Stormshadow	Air launched deep strike cruise missile capable of penetrating hardened targets	In-service	Ongoing until out of service in early 2030s	£100m-£250m
	SHORAD HVM	Shorter Range Air Defence missile for the Army	In-service	Ongoing until 2026	<£100m
	Land Ceptor	Medium Range Air Defence missile for the Army using Common Anti-Air Modular Missile (CAMM)	Pre-concept	Ongoing	£500m-£1bn
	Mounted Close Combat Overwatch (MCCO)	Battle Group Organic Anti-Armour capability	Pre-concept	Ongoing	£250m-£500m
	Sea Viper Multi-Function Radar	Air Defence radar development programme	In-service	Ongoing	£100m-£250m
	ASTER Mid-Life Refresh	Longer-range air defence missiles for T45	Design & Manufacture	Ongoing	£100m-£250m
<b>Novel Weapons</b>	Directed Energy Weapon (DEW)	A weapon system that disrupts, degrades, or damages a target by emission of highly focused electromagnetic energy, either laser or radiofrequency	R&D/Concept	Ongoing	£100m-£250m

## Defence Nuclear Organisation

13. The Defence Nuclear Organisation (DNO) sustains and renews the nuclear deterrent so that it remains credible, effective and protects the people of the United Kingdom, now and in the future. The DNO sponsors the Defence Nuclear Enterprise, which includes all the organisations, programmes and people that sustain the UK's strategic nuclear deterrent. Within the Enterprise, the DNO, Submarine Delivery Agency and Navy Command work with Defence Equipment and Support, BAE Systems, Rolls-Royce and Babcock Marine (Babcock) to effectively and safely

deliver submarine capability to the Royal Navy. The warheads for the UK's nuclear deterrent are designed, certified and manufactured by the Atomic Weapons Establishment, an arm's length body owned by the MOD. As a responsible nuclear submarine operator, the Enterprise is also progressing with the dismantling and disposal solution for decommissioned nuclear submarines and investigating potential future applications of advanced nuclear technology beyond its traditional use in submarines, as well as its potential contribution in Net Zero 2050.

Capability Group	Capability Project/ Programme	Description	Status of the Programme (Lifecycle)	Timeframe for new investment	Approximate Investment Value over the next 10 years
<b>Strategic Nuclear Deterrent (SSBN)</b>	Dreadnought Submarine Programme	The design, development and manufacture of four Dreadnought SSBN Class submarines	In-build	Ongoing	£40bn+
<b>Attack Submarine (SSN)</b>	Astute Submarine Programme	To development and manufacture of the seven Boat Astute Class	In-build & In-service	Ongoing	
<b>Nuclear Reactor Production</b>	Core Production Capability	To deliver safe nuclear reactor cores to meet the Royal Navy's submarine programme	In-build	Ongoing	
	Nuclear Warhead Capability Sustainment Programme	To deliver and sustain the capability to underwrite the UK nuclear warhead stockpile		Ongoing	
<b>Submarine Dismantling</b>	Submarine Dismantling Project	Dismantling the UK's de-fuelled, nuclear powered submarines after they have left service with the Royal Navy	Demonstration phase	Ongoing	
<b>Maritime Underwater Future Capability</b>	Ship Submersible Nuclear (Replacement) (SSN(R))	The programme to consider successor solutions for Astute Class attack submarines when they start to leave service in the late 2030s	Concept phase	Ongoing	