

PROGRAMMES AT A GLANCE: JUNE 2023






- 21 countries updated








Sponsored by:



THALES
Building a future we can all trust

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Australia: Land 53</p> 	<p>Contracts for Tranche 1 were signed in 2016 with Mission Systems Australia (a subsidiary of L3Harris Corporation). All Tranche 1 equipment was delivered to units between 2017 and 2020, as planned. All equipment is supported by a dedicated warehousing, repair and inventory management facility in south east Queensland.</p> <p>Tranche 2 is acquiring emerging night-fighting technologies to augment, supplement or enhance the Tranche 1 equipment. In Dec 2020, the Government announced that Missions Systems Australia had been awarded the contract.</p> <p>The Night Fighting Equipment project (LAND 53 Phase 1BR) is replacing helmet-mounted night-vision equipment and laser-aiming devices that attach to specified Australian Defence Force weapons for dismounted combatants.</p> <p>Under Tranche 2, more than 5,500 helmet-mounted fused night vision systems will be delivered to the ADF, combining image intensification with thermal imaging to improve visibility and target detection in low or no light situations.</p> <p>Final Material Release is scheduled for March 2023, with Final Operational Capability in expected to be achieved in September 2023.</p>
<p>Australia: Land 125 Phase 3C</p> 	<p>Thales Australia is the Functional Systems Integrator manufacturing the Enhanced F88 Rifle and supplying the Steyr Mannlicher-produced Grenade Launcher Attachment. The rifles are built at the Thales Australia Small Arms manufacturing facility in Lithgow, New South Wales.</p> <p>A contract for the production of 30,000 Enhanced F88 Rifles, 2,277 Grenade Launchers, repair parts and training aids was signed in July 2015. Deliveries of the rifles were complete in March 2021 and deliveries of the remaining ancillary sub-systems were completed in October 2021.</p> <p>The Enhanced F88 project (LAND 125 Phase 3C) will deliver the Enhanced F88 Rifle, Grenade Launcher Attachment and a suite of surveillance and target acquisition ancillaries, including an enhanced day sight and thermal and image-intensifier sights, training and support systems.</p> <p>The list of capabilities delivered under the project was increased in July 2018 to encompass ancillary sub-systems including: suppressor, standalone grenade launcher stock and non-lethal reality based training weapons.</p> <p>In July 2020, the Government announced that an order had been placed for an additional 8,500 rifles. These deliveries will continue through to August 2022.</p> <p>Final Material Release is scheduled for September 2022, with Final Operational Capability expected to be achieved in December 2022.</p>
<p>Australia: Land 125 Phase 4 (Army High Priority Capability Gaps - Next Soldier Enhancement)</p> 	<p>Babcock Australasia announced Oct 2022 that it will partner with Shoal Group, Buzzworks and Bond University to deliver the Land 125 Phase 4 Integrated Soldier System Program, alongside its plans to establish a Future Australian Soldier System Technology Centre (FASST-C), should it be successful.</p> <p>Land 125 Phase 4 will deliver an integrated soldier system (ISS) integrating all elements and subsystems that are used, worn or carried by soldiers in any operational context or environment, for up to 72 hours without resupply. It excludes personal weapons and communications equipment, which are managed by separate, related projects.</p> <p>The ISS will also include un-crewed ground and aerial systems and self-learning machines.</p>
<p>Australia: Land 200</p> <p>LAND 200 is made up of phases from three projects: Land 125, Land 75 and JP 2072.</p>  <div style="border: 2px solid red; padding: 2px; display: inline-block; color: white; font-weight: bold;">UPDATED</div>	<p>The project provides Army with a Battle Management System and an integrated Tactical Communications Network to transform command and control of Land Forces into a modern networked system.</p> <p>The project is the heart of Australia's Army military digital evolution and comprises of two major sub systems:</p> <ul style="list-style-type: none"> • Battle Management System - a digital planning and monitoring system with a battle map displaying combated related data including overlays, orders, messages and blue and red force tracks. • Tactical Communications Network – mobile, highly secure, communications infrastructure that provides voice and data distribution of the Battle Management System and other combat systems such as the Army Field Artillery Tactical Data System. <p>The next Phase of the Land 200 program (Land 200 Phase 3) is scoped to deliver the next generation of Battle Management System and Tactical Communication Network capabilities to meet the current and future needs of the Land domain. Content is current as at April 2023.</p>


Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Australia: Land 400 Phase 2</p>  <p>UPDATED</p>	<p>Marand Precision Engineering and Rheinmetall have announced a \$50 million extension to their manufacturing partnership to now include the Boxer Combat Reconnaissance Vehicle (CRV) in use with the Australian Defence Force and for export orders.</p> <p>Marand has an existing partnership with Rheinmetall to manufacture LANCE digital turrets, hull components and vehicle attachments in Geelong for export markets utilising both companies' Australian supply chains.</p> <p>The enhanced manufacturing partnership announced by the companies on 26 May 2023 includes Geelong manufacture of Boxer CRV subassemblies including Citadel machining, turret hatches, turret baskets, doors and dismount hatches.</p>
<p>Australia: Land 121 Phase 3</p> 	<p>The Land 121 Phase 3B contract commenced in April 2016 with a four year program focused on the delivery of a fleet of 2,536 vehicles in multiple configurations to form the logistics backbone of the Australian Defence Force. Deliveries to Australian Army facilities around Australia are expected to be completed by April 2020 under the Land 121 Phase 3B program schedule.</p> <p>Deliveries of over 2,500 Rheinmetall MAN high mobility logistics vehicles to the Australian Defence Force have achieved a major new milestone with the Commonwealth of Australia declaring Initial Operating Capability (IOC) status for the LAND 121 Phase 3B program.</p> <p>The vehicles included under the Land 121 Phase 3B program and delivered to the Australian Army to date include the variants: Heavy Integrated Load Handling (HX-77); Heavy Tipper (HX-77); Medium Tipper (40-M); Tractor (HX-81); Heavy Recovery (45M); Medium-weight Tray with Crane (40M); Medium-weight Tray (40M).</p> <p>Australian industry capability (AIC) is a critical part of the Land 121 Phase 3B program and will be underscored during the next phase of the program - Land 121 Phase 3B/5B - which will see Rheinmetall deliver a further 1,044 vehicles and 872 modules, as well as on-going support to the capability to ensure it meets operational requirements.</p>
<p>Australia: Land 8710</p> 	<p>New Partnership For Australia's LAND 8710 Amphibious Program: the Australian Maritime Alliance (AMA) has teamed with IMC Naval Architects (IMC) to deliver a state-of-the-art solution for the Australian Army's LAND 8710 Phase 1A program.</p> <p>Army's Land Mobility System Program is currently looking at replacing the ageing Mechanized Mark 8 Landing Craft (LCM8), which were originally brought into service by the US Navy for river operations during the Vietnam War. The Australian Army have been using similar platform types for many years, which will soon be replaced by a more suitable watercraft under Project Land 8710 Phase 1 (Army Water Transport).</p> <p>Now that the landing craft (LLCs) aboard HMAS Canberra and HMAS Adelaide are fit for purpose, they could serve as a viable contender to meet Army's future water transport requirements.</p>
<p>Austria</p>  <p>UPDATED</p>	<p>The decision to increase defence spending is partly due to the ongoing conflict in Ukraine, highlighting the need for Austria to modernise its military capabilities. The country's tank fleet, in particular, requires an upgrade, and Austria has plans to invest in new Saab 105 jet trainers, AW169 helicopters, and Pandur 6X6 Evo armoured vehicles.</p> <p>Austria's ageing equipment and need for new systems will be a significant driver and many of its systems are ageing, with out-of-service dates rapidly approaching, which will compound the need for further acquisitions.</p>
<p>Belgium: BEST</p> 	<p>2019: Invisio has received a follow-up order from the Belgian Army to supply communication and hearing protection systems. The company won the order in partnership with Thales Belgium, which is the main contractor for the programme.</p> <p>The order is valued at around Skr25m (\$2.57m). Invisio expects to make deliveries in the fourth quarter of this year and the first half of next year.</p>






Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Belgium: STAR</p> 	<p>The STAR Plan, for Security, Technology, Ambition and Resilience. Government investment of €10.3 billion in capabilities to boost the defence budget to 1.54% of GDP by 2030.</p> <p>Belgium, like others, recognises that the threats are still out there. Indeed, after years of decline, the previous Belgian government already agreed in 2018 to a large-scale reinvestment that included the acquisition of 34 F35 combat aircraft, among others.</p> <p>Current investments include “traditional” capability areas, notably the total re-equipment of the army’s motorised brigade, with French armoured vehicles and the replacement of the navy’s 2 frigates. It also concerns other domains: the military intelligence service will be strengthened, and a brand new (defensive as well as offensive) cyber component will be created.</p> <p>Belgium could create a second army brigade, with heavier equipment than the existing one. And if Belgium sets up a second brigade, it needs to find soldiers.</p>
<p>Brazil</p>  <p>UPDATED</p>	<p>Brazil’s defence budget is projected to increase steadily over the coming years, reaching \$29.9bn in 2028, reflecting its commitment to modernising its armed forces. The government’s focus on internal security issues, including combating drug trafficking, arms smuggling and organised crime, is a key driver behind the increased defence expenditure.</p> <p>Modernisation programs such as the Brazilian Gripen program, VBTP-MR Guarani Project, and submarine development program are among the initiatives that contribute to the rise in defence spending.</p> <p>The Brazilian Army is actively undertaking various modernisation projects, including acquiring self-propelled howitzers and upgrading armoured vehicles. The Air Force has expanded its order of F-39 E/F Gripen fighter jets, while the Navy has outlined plans to procure patrol vessels, frigates, surveillance systems, logistical support ships, and unmanned aerial vehicles. These efforts reflect Brazil’s commitment to enhancing its defence capabilities and protecting its borders, including the Amazon rainforest and offshore oil reserves.</p>
<p>Canada</p>  <p>UPDATED</p>	<p>The Canadian Army recently published its Digital Strategy, titled <i>Modernization Vital Ground: The Essential Digital Pivot to be Effective in the Pan-Domain Fight</i>. The strategy outlines the commander’s vision for transforming the Army from an analogue organisation with legacy industrial-era structures, tools, processes, governance models and culture, to a true, data-driven, innovative organization that can leverage the military potential of digital solutions to influence the battle and deliver competitive advantage.</p> <p>The strategy comes at a time when the global security environment is becoming increasingly complex and unpredictable, with threats ranging from state actors to non-state actors, from conventional warfare to hybrid warfare, from physical domains to cyber and space domains. The Army recognizes that it needs to adapt and modernize its capabilities to be ready for the multi-domain operations (MDO) that will characterize the future of warfare.</p> <p>One of the key enablers of MDO is digital transformation, which is not just about transforming our current digital things into better digital things, but about changing the entire military relationship with technology, bringing a new, symbiotic relationship with digital tech that helps reinvent how objectives are accomplished and accelerates operational tempo.</p> <p>The strategy identifies four drivers for change that motivate the need for digital transformation:</p> <ul style="list-style-type: none"> • The exponential growth of data and information that requires new ways of collecting, processing, analyzing and disseminating it. • The rapid evolution of technology that offers new opportunities and challenges for military operations. • The changing expectations of soldiers and stakeholders that demand more agility, responsiveness and transparency from the Army. • The increasing complexity and uncertainty of the operational environment that requires more adaptability, resilience and innovation from the Army.




Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Croatia</p>  <p>UPDATED</p>	<p>This year's budget of the Croatian Defence Ministry is expected to be nearly 300 million kuna (€40 million) higher than in 2022, which will be used to improve the status and entitlements of military personnel, modernisation, and equipment. The government adopted the decision on the budget framework for 2023-2025, proposing that the Defence Ministry budget be increased by 298 million kuna to 7.7 billion kuna (€1.02 billion). Projections for 2024 and 2025 exceed 8 billion kuna (€1.06 billion).</p>
<p>Czech Republic</p>  <p>UPDATED</p>	<p>Russia's actions have left the Czech Army with many urgent tasks that can no longer be postponed. A five point plan covering long-term priorities involves a defence review, which is already underway; a vision for army future warfare; equipment modernization projects being accelerated (notably command and control, intelligence, fires and force protection); changes to the army's current personnel plan described as "unsustainable" and a debate about the future security priorities of the Czech Republic more generally.</p> <p>On procurement, the country too often plays "catch up" on acquiring equipment that was needed much sooner - including tanks, helicopters, logistics vehicles and guns.</p>
<p>Denmark</p>  <p>UPDATED</p>	<p>Denmark announced it will invest 38 billion kroner (€5.09 billion) to modernise its defence sector over the next 10 years. In a statement, the Ministry of Defence said it will allocate around 27 billion kroner for defence equipment, buildings, information technology and personnel, and a further 11 billion kroner for new investments, explaining that the current geopolitical situation required "more resources to ensure the current defence".</p> <p>This announcement comes in the wake of an audit of the armed forces intended to lay the ground for new defence budget negotiations. That review revealed the extent of wear and tear on equipment and barracks as well as severe IT challenges.</p> <p>The Danish government has also rowed in behind the European effort to supply Ukraine with the hardware and money it needs to fight back against the Russian invasion. Poulsen announced that the country will be sending Ukraine 1.7 billion kroner (€228m) in financial assistance - this as it teams up with the Netherlands and Germany to procure and donate Leopard battle tanks for the Ukrainian army.</p>
<p>EU: GOSSRA – European generic Soldier Systems</p> 	<p>The "Extended GOSSRA Architecture Document Draft 2 Version 2" was produced with focus on operational issues, maintenance and logistics, and technical issues.</p> <p>The project is in close contact with the "NATO LCG DSS, C4I&A Working Group" and the EDA "CapTech Land." The team is now working on the architecture to be proposed for standardisation and the accompanying formal architecture generated by Enterprise Architecture from SparxSystems Ltd. This architecture will then be validated and demonstrated to Stakeholders in February 2022.</p>
<p>Finland: Now known as Warrior 2020</p>  <p>UPDATED</p>	<p>The Finnish Defence Forces purchased Patria 6x6 armoured vehicles as a part of the multinational Finland-led CAVS (Common Armoured Vehicle Systems) programme that also features Latvia, Sweden and Germany. Patria signed the agreement for 91 vehicles with the Finnish Defence Forces Logistics Command. In addition to the vehicles, the purchase also includes spare parts, tools as well as operation and maintenance training, in addition to a purchase option for 70 vehicles. Deliveries of the vehicles will begin during 2023.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>France</p>  <div style="border: 1px solid red; padding: 2px; display: inline-block; margin-top: 5px;">UPDATED</div>	<p>The 2024-2030 military programming law will support an unprecedented 36 percent increase in the army's budget, including up to €18 billion in equipment and stocks.</p> <p>Land forces will remain around 77,000 soldiers, but the reserve will double and some units will transform to develop new capacities and consolidate service support. The operational force will keep the same structure: 1 Corps HQ, 2 combat divisions and 6 combined-arms brigades (French combined-arms brigades are slightly bigger than most of NATO's, with about 5,000 active duty soldiers and full combined-arms abilities). 3 other specialist brigades - aviation brigade, French-German brigade and Special Force brigade - will also be supported.</p> <p>The army will this year stand up a Combat Future's command, to keep up the pace with innovation and help coordinate acquisition programs with tomorrow's needs.</p> <p>The service will also create a specific command for deep operations, in support of the Corps and the two combat divisions, able to generate capacities to accelerate the kill-chain by systemizing intelligence, deep fires and aviation.</p> <p>Responding to NATO's force requirement, the French army is able to deploy up to its Corps HQ 1 division with 2 brigades, including enablers, the aviation brigade and a Special Forces task force. For an immediate response, a full brigade with 4 combined-arms battlegroups is permanently under alert.</p> <p>Existing training facilities are being enlarged and modernized with simulation, especially for command post exercises and regimental/brigade level live exercises.</p> <p>A major focus is on the UAV fleet, where starting in 2025, more than 3,500 drone systems of all types will be distributed in the forces. The goal is to develop a polyvalent drone capability, with diversified kits (intelligence, communications etc.). For the army, SDT Patroller systems are currently arriving, with a total order of 28. They will considerably increase detection and remote action abilities.</p> <p>As for deep fires, the Délégation générale de l'Armement (DGA: French Defense Acquisition Agency) is working with the Army on a system that will complement/replace the M270 MLRS ("LRU" in French), and is looking forward to acquiring loitering munitions.</p> <p>The 155mm CAESAR artillery system, which has proved its high efficiency in Ukraine but also against ISIS in Iraq, is being modernized, and the LECLERC tank is about to be renovated through the TITAN program.</p> <p>The real game changer for movement and maneuver is the communication system, called "SICS." It takes advantage of connectivity and digitalization to enable units to develop "collaborative combat" and take advantage of chaos in battle by sharing quicker blue and red pictures and striking solutions. Put more simply, SICS is a cognitive tool to speed up decisions and enable mission command and initiative.</p>
<p>France: Arme Individuelle Future (AIF)</p> 	<p>The tender called for a total of 90,000 weapons to be purchased, comprised of 45,000 assault rifles and 45,000 carbines, all chambered in 5.56 mm x 45 NATO ammunition. Under France's Military Programming Law 2014-19, more than 100,000 weapons - with the associated accessories, ammunition and services - will be delivered. A first batch of 400 rifles was received in May 2017.</p> <p> The bid request required the AIF standard to be integrated with the other aspects of France's FELIN future soldier system modernisation programme.</p> <p>Heckler & Koch's HK416F was selected in September 2016 to fulfill the requirement. This marks the first time that a France will acquire a standard-issue rifle from a foreign manufacturer.</p>










Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>France: Scorpion</p> 	<p>Scorpion is seeking to upgrade the army's light and medium tanks and improve their connectivity. The army received its first batch of Jaguar armored reconnaissance and combat vehicles in February 2022 and since then has ordered more. They are manufactured by a consortium comprising French contractors Nexter, Arquus and Thales. They will replace three existing vehicle platforms: the AMX-10RC tank destroyer, the ERC-90 Sagaie armored reconnaissance vehicle and the VAB HOT Mephisto armored personnel carrier.</p> <p>The same consortium is building the Griffon multi-role armored vehicle as part of the Scorpion program. They will replace 4x4 armored personnel carriers, which have been in the inventory since the 1970s.</p> <p>The Scorpion program has integrated two new platforms in addition to the Jaguar and Griffon. It has so far ordered 108 Serval light armored vehicles built by manufacturers Nexter and Texelis. The 15-ton Serval is expected to complement the 24-ton Griffon. It can move eight personnel, including the driver and gunner and is expected to be the main light vehicle in the inventory with some 16 variants, including patrol vehicle, a communications node and scout, according to French army fact sheets.</p> <p>Delivery of Griffons has also begun. The 6x6 vehicle will serve a variety of missions including a mobile mortar, mobile command post and ambulances. They can carry remotely operated 7.62mm or 12.7mm machine guns or 40mm grenade launchers.</p> <p>The French army decided not to include new high-firepower vehicles in its modernization plans, but rather to upgrade 200 of its Leclerc main battle tanks. That includes new computers, stronger armor, new sensors and the Scorpion Combat Information System. The French army was behind others in fielding so-called "kamikaze drones," but that was remedied by acquiring U.S.-made AeroVironment Switchblade drones in late 2022. Robots will be integrated with experimental vehicles planned to join crewed counterparts around 2025.</p>
<p>France: Titan</p> 	<p>Titan will start in 2030, a few years before Scorpion wraps up, and will run until 2045 with a concentration on modernizing heavy tanks, artillery and combat helicopters. Titan will start off as a series of studies that will identify the best technological solutions. The reason for the two-phased approach is that French military thinkers see the battlefields of 2030 and 2040 as being different.</p> <p>Ultimately, the goal is to have complete interoperability with allies. Work on inter-connectivity is already being carried out with partner nations such as other NATO members. Titan's future is a series of systems that will co-exist. One goal is to have up to 7,000 nodes on a division scale interconnected.</p> <p>Robotics on the Titan Programme will begin with experiments around 2030, these will include more autonomous robots that will collaborate with the second wave of new platforms developed under Titan.</p>
<p>Germany: 'Gladius' IdZ-2/ES</p> 	<p>Rheinmetall was contracted to deliver the IdZ-ES future soldier system to the German Bundeswehr in 2013. IdZ-ES is also known as the 'GLADIUS'.</p> <p>In 2017, the Bundeswehr ordered the next generation IdZ-ES plus for 68 platoons. The latest generation, IdZ-ES VJTF (also called GLADIUS 2.0) was contracted in 2018 and is successfully delivered. In June 2022, the Bundeswehr approved the system 'Combat Ready' being in service during the lead nation role of Germany in 2023.</p> <p>New equipment to reduce weight to 3.9kg by removing INS, new integrated tablet and squad leader display and upgrading C2 software. New 30% more battery capacity and lower power consumption.</p> <p>In total, Rheinmetall has delivered over 3,500 systems to the German Bundeswehr. 400 systems IdZ-ES VJTF are delivered. That version is much more modular, flexible, lightweight and offers an open system architecture for the integration of several sub-systems. The soldier system is fully integrated in the troop carrier PUMA and other platforms and sensor-to-shooter capability is realized. Fully combat proven by the German Armed Forces in June 2022.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>India</p>  	<p>Modernisation of Defence Armed Forces involves the acquisition of platforms, technologies and weapon systems to upgrade and augment Defence capabilities and is a continuous process based on threat perception, operational necessities and technological changes to keep the Armed Forces in a state of readiness to meet the entire spectrum of security challenges. Government attaches highest priority to ensure that the Armed Forces are sufficiently equipped to meet any operational requirement, which is achieved through induction of new equipment and technological upgradation of capabilities.</p> <p>Equipment requirements of the Armed Forces are planned and progressed through a detailed process which includes Ten Years Integrated Capability Development Plan (ICDP), Five Years Defence Capability Acquisition Plan (DCAP) and Annual Acquisition Plan (AAP) and deliberations by the Defence Acquisition Council chaired by the Raksha Mantri (Defence Minister.)</p> <p>To enhance the strategic capabilities and develop advanced technology/products the following initiatives/policies have been taken/made by the Government:</p> <ul style="list-style-type: none"> • DRDO has established 05 DRDO Young Scientist Laboratories (DYSLs) to provide solutions in advanced technology areas viz artificial intelligence, quantum technologies, cognitive technologies, asymmetric technologies and smart materials to tackle emerging challenges in military warfare. • Announcement of 18 major defence platforms for industry led Design & Development in March 2022. • Notification of three 'Positive Indigenisation lists' of total 310 items of services and two Positive Indigenisation lists of total 2958 items of DPSUs for which there would be an embargo on the import beyond the timelines indicated against them. • Launch of innovations for Defence Excellence (iDEX) scheme involving start-ups & Micro, Small and Medium Enterprises (MSMEs). • Launch of an indigenisation portal namely SRIJAN to facilitate indigenisation by Indian industry including MSMEs. • Opening up of Defence Research & Development (R&D) for industry, start-ups and academia with 25% of defence R&D budget earmarked to promote development of defence technology in the country.
<p>Israel: Edge of Tomorrow</p> 	<p>"Edge of Tomorrow," an innovative Israeli program, is set to revolutionize the concept of the infantry soldier. The program was unveiled by The Directorate of Defense Research and Development (DDR&D) from the Ministry of Defense, and Elbit Systems, one of the main companies producing defense electronic devices in Israel. The program incorporates networked warfare technologies for each and every soldier on an infantry combat team; it is also designed to improve the combat team's modern urban warfare, according to Israel's Defense Ministry.</p> <p>There will be specialized suits for every kind of soldier on a team which consists of a set of wearable technologies that include many connected subsystems. Everyone gets his specific suit and it's all connected, a soldier suit, a commander suit, a sharpshooter suit, etc. This set of technologies includes many different devices such as display goggles, a sleeve that helps with transmitting information within the group, computerized rifles, night vision systems, a component that can help with carrying weight, and fire detection capability. The plan is still in development, and the timing of the launch of the program is still uncertain.</p>
<p>Italy: Soldato Futuro</p> 	<p>The NATO Support and Procurement Agency (NSPA) awarded the European leading robotics and autonomous systems (RAS) developer and system integrator Milrem Robotics a contract to provide RAS Concept Development and Experimentation (CD&E) Services to the Italian Army. The scope of the multi-year campaign is to explore RAS technology in order to update the Italian army's RAS strategy and outline an implementation roadmap for the introduction of unmanned systems and related technology into service. Milrem Robotics will support the Italian army in developing a clear path to how RAS technology, systems and architectures can generate operational advantages and ground armed forces benefits when operating in urbanized environments.</p> <p>The Italian Army is to receive about 3 billion a year which is still under the EU 2% spend, but after years of inactivity are now planning to modernise its heavy brigades, splitting the programme in two phases. The first one, seen as an interim solution, is based on the upgrade of the legacy fleet of vehicles, which are the Ariete MBT, the Dardo AIFV, and a series of specialised versions of the M113 in the combat and combat service support roles that operate in mechanised infantry regiments alongside with the Dardo.</p> <p>The second step of the programme will include the acquisition of over 1,000 armoured vehicles of different types, its cost being evaluated at over 20 billion Euro. This programme will come in from 2035 on and will include new MBTs, the main part of it being however centred on a new modular tracked platform, AICS (Armoured Infantry Combat System) in official papers, which will give birth to a whole family of vehicles.</p>




Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
Japan: ACIES 	<p>Advanced Combat Infantry Equipment System (ACIES) is the integrated communication and coordinated system for JSDF infantry to enhance combat efficiency.</p> <p>Evaluation complete. Delivery of first system in 2012-2019.</p> <p> Hitachi prime; HMD by Shimadzu, NEC IR camera and Brentronics power solution. Based on US army's NETT Warrior and French army's Felin system, the ACIES system consists of HMD, wearable computer, protective gear, weapon and monitoring capability integrated as a system, designed to share information among the troops and C2 element to fight effectively and efficiently. Unlike the legacy Japanese military hardware, the ACIES will utilize large volume of COTS item as well as foreign source to save development cost and prevent obsolescence issues.</p>
Jordan: 'Future Soldier System' 	<p>Completed Phase I studies. Entered Phase II.</p> <p> Led by Army and KADDB. Selex and Sagem amongst international partners. Selecting which items can be developed produced locally or sourced internationally. Trialled weapons optics from Aselsan and Jels Polly & Norinco, Night Optics and STS. Also trialled gunshot location systems from QinetiQ, Raytheon and Ultra.</p>
Netherlands: VOSS (Improved Operational Soldier System) 	<p>Smart vest, power supply, load carriage and protection.</p> <p>The "Smart Vest" will be supplied by Elbit over a two-year period. Under this follow-on contract, Elbit Systems will supply additional wearable equipment consisting of soldier Load Carriage and Protection (LCP) systems. Under the VOSS programme, Elbit Systems is providing the Armed Forces of the Netherlands with man-pack E-LynX Software Defined Radio systems, RAPTOR wearable computing units, Command and Control capabilities as well as vehicle systems.</p> <p>The system includes vests, backpacks, and ballistic protection, which are being tested in different combinations, according to the MoD, which added that VOSS communications equipment is undergoing tests in various vehicles.</p> <p>VOSS is being tested for comfort and functionality in different environments: urban areas, woods, arctic conditions, and airborne. In 2018, VOSS vests and backpacks were tested by the Royal Netherlands Marines in Norway and by the army's 13 Light Brigade in Germany.</p>
Netherlands: VOSS 2 	<p>Elbit Systems Awarded \$50 Million Contract to Supply Additional Digital Soldier Systems to the Royal Netherlands Army.</p> <p>Under the contract, Elbit Systems will supply digital soldier systems and vehicular integration of improved combat network capabilities including TORCH-XTM Dismounted Command and Control systems and E-LynXTM Software Defines Radio systems. The solutions to be provided were designed to address unique requirements that were presented by the Netherlands' Defence Material Organization and field-tested by RNLA troops.</p> <p>The first new Dutch personal equipment from the VOSS (Enhanced Operational Soldier System) project has been issued to an operational unit.</p> <p>After many years of development, testing, adaptation and production The first official supply of personal equipment from the VOSS (Enhanced Operational Soldier System) project to an operational unit. This concerns the complete carrying system, battle belt and backpack. This also includes the new combat helmet.</p>
New Zealand: Soldier survivability programme of equipment (SSPE) 	<p>Incorporates Australia's Land 125 Phase 3B contracts, which have been awarded to Bendigo-based Australian Defence Apparel (ADA) for the supply of load carriage equipment, including ballistic plate carriers, packs, basic pouches and equipment bags.</p>



Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Norway</p>  <p>UPDATED</p>	<p>According to the <i>Long Term Plan</i> for the Armed Forces 2022-2029, large investments in modern materiel are planned for the Army. Various capabilities have been evaluated, each contributing to the necessary capacity of the land forces, and securing that available funds are used to provide the best possible operational capability. As with other acquisitions of key capabilities for the Armed Forces, the acquisitions of main systems for the Army will be time-consuming. The most important initiatives for the Army are to establish Finnmark Land Defence with adequate capabilities, strengthen the brigade system with further mechanization, and establish a satisfactory combat air defence.</p> <p>155 mm artillery system has been procured, while new artillery hunting radars are being procured. Acquisition of a new, modern tank capacity with associated infrastructure will start at the end of the short-term period. In order to maintain the tank capacity until new tanks are delivered from 2025, the service life of the existing Leopard 2 A4 will be extended. Additionally, it is planned to introduce a long-range precision fire system for the Army at the end of the period. A number of support vehicles based on the Leopard and the M113 platforms are renewed to support the mechanized structure. Furthermore, command and control systems for the Army will be upgraded continuously throughout the period. All-terrain vehicles and trucks will be replaced, when existing vehicles reaches the end of their service life. Overall, this means that the main materiel in the Army has been significantly modernized or is in the process of being modernized. The strengthening of the Army in Finnmark is supported by the acquisition of Man-Portable Air-Defence System and combat engineer resources. Modern equipment for the individual soldier, such as personal clothing and equipment, weapons, personal protection, optics and night capacity equipment will increase the ability to survive and conduct effective operations. Norwegian soldiers have modern and state-of-the-art equipment, and this will be maintained throughout the period with the supply of new equipment with associated necessary infrastructure such as barracks, offices, medical services, garrison security and garages. Special Forces capabilities will be upgraded throughout the period.</p>
<p>Pakistan: Concept phase</p> 	<p>The development and trials of a sabot FSDS-T round. The development of a driver's thermal imaging/night vision periscope. A pilot effort to rebuild T-80UDs (completed in August 2019). The continued rebuilding of M113-series armored personnel carriers.</p>
<p>Philippines: 'Future Soldier'</p> 	<p>President Duterte approved the Armed Forces modernization program's for Horizon 2 in 2018. The list of projects will be implemented to 2022, with a budget of about US\$5.6 billion. The Philippine Army has allotted 1.5 million pesos for its development of its 3rd UAV which will be an enhanced version of the Philippine Army's first two drones, the "Raptor" and the "Knight Falcon".</p> <p>The government is ordering 44,080 force protection equipment sets, composed of bulletproof vests, plate inserts and soft-ballistic panels, for which the government allotted some P1.76 billion. Each FPE weighs from 5.8 kg - 6.8 kg. The BAC expects the winning bidder to deliver 15,000 sets within 120 days of the opening of Letter of Credit. The remaining 29,080 sets will be delivered later.</p> <p>The Armed Forces of the Philippines will acquire close to \$1m worth of hand grenades for security operations. A bid bulletin published in The STAR showed that the AFP will acquire 11,364 smoke grenades and 11,460 fragmentation grenades. The government has allotted P19.944m for the smoke grenades and P19.998m for the fragmentation grenades. The Bids and Awards Committee of the Department of National Defense declared Remington arms company in the US as the winning bidder to supply 50,629 pieces of M4 rifles. The bid was for just under P2-billion. "Remington submitted a total bid price of P1,944,261,591.66, saving government coffers P1,245,365,408.34, based on the total authorized budget of contract of P3,189,627,000". This would place the price for each rifle at around P38,400, or around \$960. On 18 March 2014, the Philippine Army confirmed the purchase of 63,000 new-built M4 carbines for P2.4 billion, with the rifles costing P38,402 each. The M4s are part of an effort to replace the Army's Vietnam-era automatic rifles.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Poland</p>  <p>UPDATED</p>	<p>Poland's military procurements, resulting from the growing threat from Russia, are unprecedented in their scale. They provide not only opportunities – Poland can significantly boost its combat capabilities and thus its position within NATO – but also generate serious challenges which cannot be underestimated. Many questions remain unanswered.</p> <p>Major assumptions for the development of the Polish Armed Forces were included in the classified document entitled “Development Program of the Armed Forces for 2021-2035” (Program Rozwoju Sił Zbrojnych na lata 2021-2035), which was adopted in the second half of 2019, as well as in its derivative “Technical Modernization Plan for 2021-2035” (PMT, Plan Modernizacji Technicznej). It is worth noting that in order to make the modernisation process more efficient, the Polish government has decided to extend the planning period from 10 to 15 years. A record sum of €110.3 billion has been allocated for the programmes.</p> <p>The shopping list includes the K2 tanks, all 180 K2s are to be delivered for €3.16 billion by 2025. Additional tanks, up to 820 that are to be built locally from 2026 onwards. Apart from 116 used M1A1FEP ABRAMS tanks, Poland also ordered 250 new M1A2 SEPv3 ABRAMS tanks. In August 2022, Poland ordered 212 K9 Self-Propelled Howitzers (SPHs) for €2.28 billion. A subject of the framework agreement signed with Hanwha Defense is an acquisition of a total of 672 K9A1 SPHs and a development of K9PL version. In early September 2022, Huta Stalowa Wola was awarded a contract to deliver 48 new KRABs with support vehicles for €805 million. Another priority is rocket launchers. In February 2023, Poland received permission to order 18 HIMARS mobile artillery rocket launchers. Warsaw also announced a continuation of the HOMAR programme, which covers a purchase of rocket launchers capable of striking targets up to 300 km away. Poland will also receive the K239 CHUNMOO MRLs, which are intended to serve as a response to Russian BM-30 SMERCH MRLS and 9K720 ISKANDER SRBMs. A deal worth €4.36 billion was signed in early November 2022.</p> <p>The BORSUK Armoured Infantry Fighting Vehicle (AIFV), a locally designed tracked vehicle is expected to replace obsolete ex-Soviet BWP/BMP-1 AIFVs (it is estimated that last year, before some donations made to Ukraine, Poland had roughly 1,200 BWP/BMP-1s). A framework agreement for 1,000 BORSUKs to be signed soon. 10 mechanised battalions of the Polish Land Forces (Wojska Lądowe) are expected to receive at least 588 AIFVs by 2035.</p> <p>After acquiring helicopters for the Special Forces (4 S-70i BLACK HAWKS + an additional 4 ordered in 2021) and the Navy (4 AW101s), Poland wants to implement the KRUK programme. Under this codename Poland will acquire modern attack helicopters for its ground forces. In September 2022, Poland signalled its willingness to procure up to 96 AH-64E APACHE GUARDIAN helicopters.</p> <p>Under the WISŁA codename Poland has already purchased 2 PATRIOT PDB-8 batteries with 4 AN/MPQ-65 radars (16 launchers in total) and Northrop Grumman's ICBS (batteries are to be based on the US configuration of the Patriot/IBCS system). During the second phase, Poland is to receive 6 additional batteries and a new radar with 360-degree coverage, and will integrate its IBSC components with locally-manufactured radars.</p> <p>Under the codename NAREW, Poland is to receive 23 short-range air/missile defence batteries with almost 400 launchers with missiles with a range between 25-50 km. Poland has also ordered the first 2 firing units in an interim configuration (with CAMM missiles), which is different from a final variant (which will be integrated with the CAMM-ER missiles). A contract is to be signed by the end of 2023.)</p>
<p>Portugal: Soldado do Futuro</p> 	<p>EID has signed a €16,7 million contract with the Portuguese Army to supply PRC-525 Combat Net Radios (CNR) and ancillaries, including deployable base systems, power amplifiers for vehicular use and antenna tuning units.</p> <p>The PRC-525 tactical radio is currently the standard man-pack and vehicular radio system used by the Portuguese Army, which has been widely used in various operational scenarios, including international defence and peace keeping missions. It achieved the “Army Tested” and “Combat Proven” certifications from the Portuguese Army. Deliveries started in 2019 and will continue to 2026.</p> <p>For the light armament effort, about EUR42.8 million worth of gear is in a final phase of acquisition through the NATO Support and Procurement Agency (NSPA). This includes 11,000 5.56 mm assault rifles, of which 1,700 come with 40 mm grenade launcher; 300 7.62 mm assault rifles; 450 7.62 mm sniper rifles; 850 5.56 mm machine guns; 320 7.62 mm machine guns; 380 12-gage shotguns; and 3,400 detachable optics.</p> <p>The sensors and sighting auxiliaries subproject is worth EUR24.8 million and calls for 1,485 aiming and illuminating systems, 1,485 thermal imaging monoculars, 332 weapon thermal sights, 1,485 IFF beacons, 214 target locators and 1,485 flashlights.</p> <p>The C4I the project adds a battle management system (BMS) by Critical Software, and allocates EUR10.5 million for data and energy integrator systems, 292 handheld radios, 1,575 personal role radios, rugged tablets, headsets, batteries, and battery chargers.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
Romania  	<p>Ministry of Defense requested Parliament's approval for initiating the procedure for awarding the procurement contract for the "Main Battle Tank" modernization program, Phase I. Specifically, this involves acquiring a battalion of 54 American Abrams tanks. These tanks will be upgraded to the M1A2 variant. Furthermore, 12 "derivatives" will be purchased, based on tank chassis, from the inventory of the US Army, along with ammunition and training simulators.</p> <p>The modernization program for these tanks, with an estimated total value of EUR 1 bln, will commence in 2023.</p>
Russia: RATNIK 	<p>Pursuing own Russian technology after considering FELIN. Supplied by the Central Research Institute of Precision Machine-Building (TsNIITochMash), which is a part of Rostec, almost 300,000 Ratnik combat outfits have been delivered to troops. The suit is equipped with a backpack, a self-contained heater, an individual water filter, a gas mask and a medical kit.</p> <p>In 2021, in cooperation with domestic industrial enterprises, extensive work was carried out to include a new 'robotic' subsystem, Ratnik-3, in the combat equipment of a serviceman, which includes mini-and micro-UAVs, wearable robotic complexes, as well as exoskeletons. The full extent of the suit's capabilities and the current status of the project remain unclear.</p> <p>The Ratnik system consists of almost sixty distinct components, ranging from revamped ballistic vests and a new helmet system to active hearing protection to several boots options for different seasons and new radio equipment. Over three hundred thousand sets of Ratnik combat gear were delivered to Russia's military.</p> <p>Next-generation Sotnik system, intended to replace Ratnik, began in 2020. Sotnik promises Russian soldiers enough protection to withstand direct shots from .50 caliber bullets - without restricting a soldier's mobility. The first batch of Sotnik gear previously projected to be with select special forces units by 2025, and wider distribution by 2030.</p>
Serbia  	<p>Over the last few years Serbia has embarked on ambitious programme of equipment modernisation and acquisition. Whenever possible, the Serbian Ministry of Defence favors products that are manufactured in Serbia such as: Lazar armoured personnel carriers, Miloš light armored infantry vehicles, Nora B-52 artillery systems, Lasta 95 training aircraft. Largest procurement of foreign equipment recently included: Chinese HQ-22 air-defence missile system, Airbus H145M utility helicopters, Russian Mi-35 attack helicopters as well as various missile acquisitions (French surface-to-air Mistral for PASARS vehicles; Russian R-77 air-to-air BVR missiles for MiG-29 fighter aircraft, Ataka air-to-surface missiles for Mi-35 attack helicopters and Kornet man-portable anti-tank guided missiles).</p> <p>Significant acquisitions of military equipment are also planned in the near future: 2 Airbus C-295 transport aircraft (due to be delivered by the end of 2023), French Thales long-range Ground Master 400 and short-range Ground Master 200 air defence mobile radar systems (to be delivered in 2022 and 2023) and Russian long-range Krasukha and short-range Repellent Patrol mobile electronic warfare systems. Recently it was also announced the intention of purchase of 12 new French Rafale multirole fighter aircraft with the aim of replacing MiG-29 which will be in service until the end of the 2020s.</p>
Singapore  	<p>As part of its move to become a Next Generation force, the Singapore Army has invested in digitalised fighting and support platforms, such as the Hunter Armoured Fighting Vehicle. It will also introduced the Next-Generation Howitzer and Armoured Tracked Carrier, as well as more unmanned aerial and ground vehicles.</p> <p>To make training more realistic and effective for soldiers, the SAF is ramping up use of smart training facilities and advanced simulators. This includes the new SAFTI City training facility that supports training in complex urban environments, and the three Instrumented Battle Circuits that will surround it. Phase 1 of SAFTI City will be completed next year.</p> <p>The Army is currently using an integrated suite of Hunter simulators, which features customisable scenarios and terrain to provide realistic and safe training for Armour personnel.</p>
Slovakia  	<p>As part of a government-to-government agreement between Sweden and the Slovak Republic, the Ministry of Defence of the Slovak Republic has signed a \$1.37 billion (€1.3 billion) agreement for the delivery of 152 CV9035 infantry fighting vehicles (IFVs) from BAE Systems.</p> <p>With the ongoing modernisation programmes at different stages of implementation, specific examples of the equipment procured are the tracked and wheeled infantry fighting vehicles, additional equipment for the UH-60M Blackhawks, Defence Medical Service ambulances, a passive surveillance radar, whilst the equipment already delivered includes six Zuzana 2 howitzers, three airport surveillance radars, munitions worth almost €23million, nearly 1,600 light machine guns, specialist weather stations for field artillery, and thousands of tactical combat vests for service personnel. Purchasing three types of new equipment – Oshkosh 4x4 JLTVs, 5,000 M4 rifles, and sophisticated anti-drone systems.</p>




Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Slovenia</p>  <p>UPDATED</p>	<p>More resources will be allocated for modern equipment and modernisation of the Slovenian Armed Forces this year and in the coming years. This is also addressed in Slovenia's Resolution on the long-term programme for the development and equipping of the Slovenian Armed Forces until 2040, which creates the conditions for more investments in defence in the face of changed security conditions.</p>
<p>South Africa: African Warrior</p> 	<p>No progress due to budgetary concerns.</p>
<p>South Korea: Future Soldier</p> 	<p>DSM Dyneema has been named to provide the ballistic protection material and key solution for enhanced lightweight armor for the Republic of Korea (South Korea) Army Multi-purpose Body Armor Program. The Multi-Purpose Body Armor Program is part of South Korea's efforts in soldier modernization, seeking to equip defense personnel with lightweight armor that provides enhanced protection over a large area of the body, thus increasing protection and survivability.</p> <p>International R&D co-operation sought in Energy Supply, Sensor Fusion and Virtual Simulation.</p>
<p>Spain</p>  <p>UPDATED</p>	<p>The Spanish Ministry of Defence proposes to spend over 6.5 billion euros on the purchase and modernization of military equipment in 2023. More than 70% of the total defense budget (4.9 billion euros) will be spent on weapons modernization programs: F-110 frigates, S-80 submarines, armored vehicles, reconnaissance aircraft and anti-tank missiles, and missile launchers. Another 1.6 billion euros (against 708.2 million in 2022: 126% more) will finance programs for the development of military technologies and production facilities.</p>
<p>Sri Lanka</p>  <p>UPDATED</p>	<p>Various suppliers.</p> <p>Government plans to halve its military by 2030 as part of efforts to cut costs in light of the country's current financial crisis. Proposals would reduce number of approved military personnel from 200,783 to 135,000 by 2024, and further reduced to 100,000 by 2030. The army also expected to undergo "technological modernisation."</p>
<p>Sudan: Future Soldier</p> 	<p>The Sudanese military has selected the Chinese QBZ-97 bullpup for their Future Soldier System. The Sudanese military has been using Chinese weaponry for some time now including: Type 96 main battle tank, HJ-8 anti-tank missile, Type 56 and Type 81 rifles, CQ rifle (copy of the M16A1), QJZ-89 50-cal heavy machine gun, M99 50-cal sniper rifle and the QLZ-87 automatic grenade launcher.</p>
<p>Sweden: MARKUS Markstridsutrustad Soldat (Swedish Project for Development and Acquisition of Equipment for Foot Soldiers)</p> 	<p>Acquired AeroVironment Puma AE SUAV in June. New small arms family planned from 2017. The new Carl-Gustaf® M4 multi-role weapon system has been purchased from SAAB.</p> <p> RFIs submitted in for Sweden's IGR programme, replacing/supplementing IGR 1 the PRR, Motorola LMR and IGR 2 Harris 7800 SPR. The IGR comprises 17,000 group radios and 8,000 platoon radios.</p>




Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>Switzerland: IMESS (Integriertes Modulares Einsatzsystem Schweizer Soldat)</p> 	<p> Airbus won a contract for the prototype phase of the IMESS project from defence procurement agency Armasuisse in 2007, then received a CHF20 million (USD22 million) advanced production engineering contract from it in 2011, which was completed on schedule in 2014. The latter contract also included an option for series production of IMESS, valued at around USD160 million.</p> <p>In July of 2014, Airbus Defence and Space has announced it has completed the development of the Swiss Army's planned new future soldier system and it is now ready to enter serial production.</p> <p> The next stage of the project will see the Swiss Army conduct field trials of IMESS over two years, with Airbus Defence and Space providing logistical support for the test phase.</p> <p>Subsystems of the IMESS system include: the Kongsberg TacLAN tactical high-capacity radio system (including the SR600 hand-held and vehicle-mounted VM600 short range radios); and Sagem optics, including the Sword T&D (Thermal and Day) weapon sight, as used in the French FELIN system.</p> <p>As part of its 2019 defence procurement programme, the Swiss Army recently placed an order with Rheinmetall for the VarioRay LLM laser light module. A contract to this effect was signed in December 2019 with Switzerland's Federal Office for Defence Procurement (Armasuisse). Delivery of 9,640 devices is set to commence in May 2020 and be complete by the end of 2022. The order is worth a figure in the lower two-digit euro million range.</p> <p>It also includes accessories, spare parts and training support. Rheinmetall Air Defence AG is the general contractor for the project; Rheinmetall Soldier Electronics GmbH is the manufacturer.</p> <p>Used for detecting, identifying and marking targets, the laser light modules – known as the LLM 19 in Swiss military parlance – will be mounted on soldiers' assault rifles. Weighing approximately 240 grams, the VarioRay LLM can be mounted on a MIL-STD 1913 rail on any assault rifle, and operated via a trigger cable. Together with the night vision and thermal imaging devices also acquired under the 2019 defence procurement programme, it will enable Swiss troops to perform their missions around the clock and in all weather conditions.</p>
<p>Thailand: SFT 21</p> 	<p>Concept phase.</p>
<p>United Kingdom: DCCS/FIST 2</p> 	<p>New home for FIST 1b from 2015.</p> <p>Major R&D thrust on burden reduction Goal to reduce burden to 40Kg by 2020.</p> <p>In mid-March 2013 Roke Manor Research Ltd, part of the Chemring Group, was awarded a three-year research contract under the Dismounted Close Combat Sensors (DCCS) Research Programme. Roke is leading a team that also includes SEA (Systems Engineering & Assessments) and QinetiQ to assess, mature and integrate innovative sensor technology for the dismounted close combat infantry soldier.</p>



Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>UK: DSA/ Project Raven</p> 	<p> Raven involved Trellisware, BAE, Ultra and Black Diamond, using the US Nett Warrior BMA. Its main aim was to work out what they might need for DSA.</p>	<p>The British Army is investing more than £1 million in a hi-tech virtual reality (VR) programme that will depict hostile virtual reality environments to enable soldiers to hone their skills.</p> <p>A £1 million contract has been awarded to software developer Bohemia Interactive Simulations (BISim), which was spun-out of the games software company behind the game ARMA 3, to explore how VR can be incorporated into soldier training.</p> <p>Founded in Australia in 2001, BISim is known for developing military simulation and training software. The company employs more than 250 people in the US, UK, Australia, Germany, the Czech Republic, and Poland, and offers its products to more than 50 defence organisations to train their personnel.</p> <p>BISim's Virtual Reality in Land Training (VRLT) pilot programme aims to improve future military training by exploiting the advantages of VR technology.</p> <p>The programme will test a variety of virtual reality applications, including high resolution VR headsets to enhance environmental immersion; avatars that can be customised to imitate facial features and body structures of fellow soldiers; mixed reality enabling soldiers to interact with objects; and, technology offering analysis to help soldiers understand their own performance.</p> <p>The training programme will provide soldiers multiple hostile simulated scenarios - such as heavy crowds and cross-fires or a building occupied by enemy soldiers - which are usually difficult to create in traditional training grounds.</p> <p>The £1 million contract has been awarded via the £800 million Defence Innovation Fund, which aims to integrate advanced technology into the military frontline.</p>
<p>United Kingdom: FIST 3/DCC Inc 3</p> 	<p>Continuing Procurements and Contract awards.</p>	<p>Meggitt secures £13 million UK MoD small arms simulator upgrade.</p> <p> FIST enhancements to 59 of the MoD's 154 DCCTs include three simulators: an underslung grenade launcher sight, a thermal sight and a commander's target locator, for which Meggitt will provide associated ballistics and round effects for SA80/UGL rifle simulators, modifying them to accommodate new thermal sights.</p> <p>35,000 sets of kit are expected to be bought and issued between 2015 and 2020. This equipment is designed to bring the British infantryman up to standards and link with new technology currently employed, including the new underslung grenade launcher for the SA80 and the deployed Bowman communications network. It is not intended that every soldier be equipped with FIST: instead unit commanders will request FIST kits as necessary and so they can be tailored to the situation and mission aims.</p> <p>As well as linking into the new technology for the soldier it is designed to link in with other new communications including Cormorant and Talon as well at the UK UAV project called Watchkeeper.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>UK: Future Soldier</p> 	<p>Innovation and experimentation form the bedrock of Future Soldier. This will be achieved through expanding relationships with the Defence industry and driving experimentation from within the force. A new Experimentation and Trials Group, based around the 2nd Battalion, The Yorkshire Regiment and specialist trials and development units, will trial new technologies and integrate them into the way that the army will fight and operate.</p> <p>The British Army Battle Lab will open in 2022 and will, through investment and collaboration with partners, industry and allies, enable the early adoption of next generation capabilities. It is part of a joint environment innovation hub known as Defence BattleLab.</p> <p>A new Land Industrial Strategy (LIS) will strengthen relationships with the Defence industry and unlock the potential of innovation and development.</p> <p>Programme THEIA will promote new digital ways of working, enable better decisions and catalyse organisational competitiveness.</p> <p>From 2024, the Collective Training Transformation Programme will ensure the Army remains prepared for ever more complex threats, taking advantage of immersive training environments and data-led training.</p> <p>Over the next 10 years, the entirety of the Army's deployable digital system will be modernised, including a world-leading Army Cyber and Electromagnetic Activities capability. This will work alongside significant investment in the security of the Army's data and digital capabilities.</p> <p>Future Soldier will be a change in mindset; the Army needs to understand and account for the impact which environmental change has on our world, our operations, and our security. We will seek to use technological solutions which contribute to the UK's goal of net zero carbon emissions by 2050, whilst also helping to reduce some drivers of conflict and resulting in a more effective and greener Army.</p> <p>Under a programme called Mercury, the Army is looking at capabilities required in 2035 and beyond. This will be focused on using lower carbon technologies of the future to enhance operational and strategic advantage. Includes a vision for an electrically powered force.</p>
<p>UK: Ranger Regiment</p> 	<p>The 1st Battalion, Ranger Regiment (1 RANGER) formed following the disbandment of the Royal Scots Borderers. Based in Northern Ireland. It is regionally aligned to West Africa.</p> <p>The 2nd Battalion, Ranger Regiment (2 RANGER) formed following the disbandment of the 2nd Battalion, Princess of Wales's Royal Regiment. Based near Aldershot. The battalion includes F (Falklands) Company, formed Nov 2021 from the Royal Gurkha Rifles. It is regionally aligned to East Africa.</p> <p>The 3rd Battalion, Ranger Regiment (3 RANGER) was formed following the disbandment of the 2nd Battalion, Duke of Lancaster's Regiment. Based at Pirbright, but will move to Aldershot in 2027. It is regionally aligned to Europe.</p> <p>The 4th Battalion, Ranger Regiment (4 RANGER) was formed following the disbandment of the 4th Battalion, The Rifles. Based in Aldershot. The battalion includes G (Coriano) Company, formed Jan 2020 as part of 3rd Battalion, Royal Gurkha Rifles. It is regionally aligned to the Middle East.</p> <p>As part of a significant British Army restructuring, following the recent Defence Command Paper, a new thousand-strong '<i>Ranger Regiment</i>' will be formed of four "all-arms" battalions, each of about 250 personnel. "They will be able to operate in complex, high-threat environments, taking on some tasks traditionally done by Special Forces. This work will involve deterring adversaries and contributing to collective deterrence by training, advising and, if necessary, accompanying partners."</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>United States: Nett Warrior</p> 	<p>ADS Provides PEO Soldier PM GS ongoing assistance and support for Nett Warrior. ADS is a Prime on the DLA SOE TLS Contract, allowing us to provide PEO Soldier PM GS with much of the C4ISR equipment they require to increase mission readiness.</p> <p>Kägwerks, announces the receipt of its largest contract-to-date for the D.O.C.K. Lite™ chest-worn networking hub. The \$24 million dollar contract continues the fielding of the D.O.C.K. Lite™ across additional combat units.</p> <p>The D.O.C.K. Lite™ system combines a ruggedized chest mounting solution for the soldier's end user device (EUD) with a networking hub to connect various soldier-worn radios, peripherals such as the Army's Enhanced Night Vision Goggles (ENVG-Bs) and data sources worn by the soldier. The D.O.C.K. Lite™ hub supports both cable and secure Intra-Soldier Wireless (ISW) network connections which reduces cable clutter, weight, volume, and cost for each soldier while enhancing their situational awareness and combat effectiveness.</p> <p>Delivery of 7000 ensembles delivered; futher 10,000 in production. Currently comprises chestmounted Samsung Galaxy S5 EUD; data power cable; prc-14 RIFLEMAND radio, DAGR; Central processor and conformal battery. Additonaly Squad power manager 5590.</p> <p>During the U.S. Army's Project Convergence 2021 experiment scheduled for October 2021, researchers will assess silicon anode cells for its Conformal Wearable Battery to be used with the Integrated Visual Augmentation System (IVAS) and the Nett Warrior system. The batteries double the power, allowing those systems to run much longer without increasing size and weight. Ultimately, the new cells could be used in a wide range of batteries for the military and commercial sectors, including those used to power tactical radios, electric cars and cellphone.</p>
<p>United States: Marines</p>  	<p>The 3rd MLR, a unit crafted as part of the ongoing Force Design 2030 modernization effort, is meant to carry out the new Stand-In Forces operating concept, which calls for small U.S. Marine Corps units to pair with allies in the first island chain, which stretches from Japan's East China Sea islands through the Philippines. This would allow the units to operate there on a regular basis as well as provide sensing and shooting capabilities while remaining stealthy.</p> <p>When the unit first attended the 2022 Balikatan exercise, it had recently been redesignated and did not have all its subordinate commands in place. Col. Tim Brady, the regiment's commanding officer, said that year's drill marked 3rd MLR's first chance to leave its Hawaii home base with a skeleton crew of a couple hundred Marines and operate in the South China Sea.</p> <p>This year, however, 1,300 Marines from a fully established 3rd MLR showed up at the exercise in April and sought to demonstrate their intended multidomain role in a joint and combined fight.</p>
<p>United States: PEO Soldier PM Soldier Protection and Individual Equipment</p> 	<p>Microsoft Corporation awarded a fixed price production agreement to manufacture Integrated Visual Augmentation System (IVAS).</p> <p>Project Timeline: SEP 2021: Vehicle Integration VE3 – Bradley, Adversarial Electronic Warfare & Cybersecurity Test. MAY 2022: Operational Test (IOT) SEP 2022: First Unit Equipped (FUE)</p> <p>IVAS being developed to efficiently deliver relevant mission information and operationally-relevant tools to soldiers at every stage of mission execution. The integration of the technology with platforms and drones extends the combat advantage of a single dismount beyond physical limitations. "Together it gives the entire force better situational awareness and allows soldiers to make more informed decisions before dismounting," said Mathur. "There are no longer gaps in information between mounting, transit and dismounting, which will increase the survivability and lethality for both the platform and the soldiers." The cross-enterprise Platform Integration team plans to conduct a user study with further IVAS integration to Stryker platforms in August 2022. "This product has the potential to be a force multiplier," said Franke. "It'll help bring more vehicles, crews, and dismounts home alive and I hope to be able to use it as it continues to develop in the future."</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>United States: Marine Expeditionary Rifle Squad (MERS) AKA - Gruntworks</p> 	<p>Continuing Soldier as a System approach.</p> <p>July 2019 - Ultra Electronics Advanced Tactical has been awarded a \$39.92 million, five-year, indefinite delivery/indefinite quantity (IDIQ) contract to support the Program Executive Office, Land Systems (PEO LS), United States Marine Corps. This contract will provide software sustainment and upgrade of the Virtual Air Defense Systems Integrator (vADSI) used in the Common Aviation Command and Control System (CAC2S). The initial delivery order for 2019 will be \$2.18 million. CAC2S provides Marine Corps Marine Expeditionary Units (MEUs) and Marine Air-Ground Task Forces (MAGTFs) the ability to process and display mission critical data while automatically correlating air and ground targets allowing battlefield commanders the tactical advantage through enhanced decision-making.</p> <p>vADSI and CAC2S provides primary tactical and mission functionality that is interoperable in a Joint tactical data link environment, and meets US, UK and NATO combat mission requirements. Over the course of CAC2S development, the vADSI has been enhanced to integrate and interface with multiple tactical information systems and networks to enable CAC2S to fully support the future combat requirements of the Marine Corps.</p> <p>The Gruntworks Squad Integration Facility showcased its latest initiatives to lighten and streamline the individual loads Marines carry into combat during the Navy League's 2015 Sea, Air, Space exposition in mid-April.</p> <p>On display was an advanced 3-D body scanner, a sophisticated computer simulation program, and a state-of-the art medical device commonly used by professional sports teams to measure performance and stress on joints.</p>
<p>United States: Air Soldier</p> 	<p>Strategy changed in Dec 2011. Changed from three to two increment approach. RFP issued in March 2012. Currently in EMD phase, procurement of Sub-Inc 1a in FY2014 and Sub-Inc 1b in FY2017.</p> <p>Government is prime integrator with various vendors providing components: Raytheon Corp., Physical Optics Corp., Flight Suits, Switlik Parachute Co. and Rini Corp.</p> <p>Air soldier goals: reduce bulk and weight. Integrate aviation life support equipment. Improved operations in degraded visual environments, increase operations in full MOPP and extreme temperatures.</p> <p>Operational and limited user tests led by operational test command; UH-60M and CH-47F aircrews from the 25th Combat Aviation Brigade evaluated the Air SS including: LCE; improved flight helmet; helmet display and tracking system; day/night helmet mounted displays; enhanced HMD symbology.</p>
<p>United States DARPA: Warrior Web</p> 	<p>The Wyss Institute for Biologically Inspired Engineering at Harvard University announced that it has been awarded a first-phase \$2.9 million follow-on contract by the Defense Advanced Research Projects Agency to continue development of its Soft Exosuit.</p> <p>The program consists of two separate but related program tasks. Task A, Warrior Web Alpha, seeks to develop a mix of core technologies critical to the realization of a Warrior Web capability. Part way through the Warrior Web program, Warrior Web Bravo, or Task B, is expected to develop an integrated suit capability by leveraging the technology developed by Task A efforts and incorporating the most appropriate breakthroughs into a suit that shows the best performance.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>United States US Space Force</p> 	<p>The new, independent U.S. Space Force will maintain and enhance the competitive edge of the DOD in space while adapting to new strategic challenges.</p> <p>Space Systems Command (SSC), in partnership with the Air Force Research Laboratory (AFRL), has awarded a \$2 million contract to PredaSAR, of Boca Raton, Florida. The contract will support an on-orbit cooperative demonstration between the PredaSAR satellite constellation and the joint SSC, AFRL, and Defense Advanced Research Projects Agency (DARPA) Blackjack satellite constellation.</p> <p>Through the command and control of all DOD satellites, satellite operators provide force-multiplying effects. Satellites provide essential in-theater secure communications, weather and navigational data for ground, air and fleet operations and threat warning.</p> <p>Ground-based and space-based systems monitor ballistic missile launches around the world to guard against a surprise missile attack on North America. A global network of space surveillance sensors provide vital information on the location of satellites and space debris for the nation and the world. Maintaining space superiority is an emerging capability required to protect U.S. space assets from hostile attacks.</p> <p>Space Test Program (STP)-3 completed roll-out to Space Launch Complex-41 on December 3 2021 in preparation for a pre-dawn launch from Cape Canaveral Space Force Station.</p> <p>STP-3 is a co-manifested spacecraft mission on a United Launch Alliance Atlas V "551" (five meter fairing, five solid rocket motors and one upper stage engine) launch vehicle. STP-3 is designed to mature technology and reduce future space program risk for the Department of the Air Force and the USSF by advancing warfighting capabilities in the areas of nuclear detonation detection, space domain awareness, weather and communication. The primary spacecraft is Space Test Program Satellite (STPSat)-6 and the rideshare spacecraft is Long Duration Propulsive ESPA (LDPE)-1.</p>
<p>United States US Space and Naval Warfare Systems Command: Joint Effects Model (JEM) Increment 2</p> 	<p>General Dynamics Information Technology was awarded the Joint Effects Model (JEM) Increment 2 contract by the Space and Naval Warfare Systems Command (SPAWAR). JEM is the U.S. Department of Defense's primary system for modeling the effects of chemical, biological, radiological and nuclear (CBRN) material releases. The cost plus fixed-fee award has a potential value of \$23.5 million over five years if all options are exercised.</p>
<p>United States: Armored Multi-Purpose Vehicle (AMPV)</p> 	<p>On going. The initial \$382 million award, granted in December 2015, called for BAE to deliver 29 vehicles in five variants in a 52-month engineering, manufacturing and development phase that will lead to a contract to replace all of the obsolete 2,897 M113 vehicles in the Army's Armored Brigade Combat Teams (ABCT).</p> <p>At AUSA Global Conference, 2015, April, Col. Mike Milner, the AMPV program manager, said he expects 180 vehicles a year from BAE. That's enough vehicles to modernize 1.3 armored brigades a year. With 12 such brigades in the Army, the last would replace its M113s in the "late 2020s". BAE rolled out the first prototype AMPV to the US Army in December 2016, the company stated.</p>

Country Programme Name	Schedule / Contractor Team / Recent Procurement Activity / Notes
<p>United States: Enhanced Night Vision Goggle III and Family of Weapon Sight-Individual (ENVG III/FWS-I)</p> 	<p>The fully integrated ENVG III/FWS-I solution is being developed and manufactured at the company's recently completed 47,000 square foot state-of-the-art facility in Hudson, New Hampshire.</p> <p> BAE Systems The U.S. Army has awarded BAE Systems a five-year contract worth up to \$434 million for the company's integrated night vision and thermal targeting solution, which improves the speed and accuracy of targeting by dismounted soldiers. The new offering helps troops to rapidly and covertly acquire targets in all weather and lighting conditions. In October 2016 BAE Systems was awarded a \$13.5 million order to begin producing the sights, which will cover 100 units.</p> <p> BAE Systems and DRS Technologies began providing the U.S. military with the Enhanced Night Vision Goggle III (ENVG III) technology in summer 2015 The long term-plan is to have 18 soldiers per platoon with the FWS-I and 24 soldier per platoon with ENVG IIIs, over the course of the programme.</p>
<p>United States: M88A1 HERCULES Upgrade</p> 	<p>The U.S. Army needs to modernize the 36 M88A1 recovery vehicles to the M88A2 Heavy Equipment Recovery Combat Utility Lift Evacuation Systems (HERCULES) configuration.</p> <p> BAE Systems The U.S. Army has awarded BAE Systems a contract modification worth \$109.7 million to convert 36 M88A1 recovery vehicles to the M88A2 Heavy Equipment Recovery Combat Utility Lift Evacuation Systems (HERCULES) configuration.</p> <p> Work on the contract is expected to begin in August by the existing workforce and will take place primarily at the company's York, Pennsylvania, and Aiken, South Carolina, facilities. Deliveries were set to begin in November 2017 and continue through August 2018.</p>
<p>United States DARPA: Positioning System for Deep Ocean Navigation (POSYDON)</p> 	<p>POSYDON aims to replace current navigational methods that pose a detection risk for undersea vehicles forced to surface periodically to access the space-based Global Positioning System (GPS), which cannot sufficiently penetrate seawater. In addition, access to above-water GPS may be denied by hostile signal jamming.</p> <p> BAE Systems Under DARPA's POSYDON program, a BAE Systems-led team will create a positioning, navigation, and timing system designed to permit vehicles to remain underwater by using multiple, integrated, long-range acoustic sources at fixed locations around the oceans</p> <p> Other members of BAE Systems' POSYDON team are the University of Washington, the Massachusetts Institute of Technology, and the University of Texas at Austin.</p>
<p>United States Next Generation Squad Weapon program</p> 	<p>Recently the army selected three competitors for prototypes to build both an automatic rifle and a rifle with a common 6.8mm cartridge to replace the M4 for an as yet undetermined number of troops in the Army, Marine Corps and Special Operations Forces.</p> <p> AAI Corporation Textron Systems; General Dynamics-OTS, Inc.; and Sig Sauer, Inc. U.S. Army announce a 10 year follow-on contract to Sig Sauer, Inc for manufacture and delivery of two Next Generation Squad Weapon variations (the XM5 Rifle and the XM250 Automatic Rifle) and the 6.8 common cartridge family of ammunition.</p> <p>Award follows a 27 month prototyping and evaluation that included technical tests and soldier touch points of three competing prototype systems.</p> <p>The value of the initial delivery order on the contract is \$20.4 million for weapons and ammunition that will undergo testing. Contract includes accessories, spares and contractor support.</p> <p>The XM5 Rifle to replace the M4/M4A1 carbine within close combat force. The XM250 Automatic Rifle is to replace the M249 Squad Automatic Weapon.</p> <p>Both weapons fire common 6.8 millimeter ammunition utilizing government provided projectiles and vendor-designed cartridges. The new ammunition includes multiple types of tactical and training rounds that increase accuracy and are more lethal against emerging threats than both the 5.56mm and 7.62mm ammunition.</p>