

# INDIA'S APPROACH TO MILITARY AI

## Strategy, Governance, and Challenges



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## ABOUT THIS REPORT

Artificial intelligence is reshaping the character of warfare and the terms of strategic competition. As the United States pursues unconstrained adoption of military AI and China accelerates integration through military-civil fusion, India faces a widening capability gap with direct implications for its national security. This report assesses India's military AI ecosystem, its institutional foundations, operational deployments, and persistent structural constraints, and benchmarks it against the rapid advances of its principal competitors. It finds that India possesses a distinctive but underutilised advantage in the DRDO's Evaluating Trustworthy AI (ETAI) Framework, which offers an operational governance model that neither great power has matched. The report proposes a policy roadmap spanning institutional reform, talent acquisition, fiscal reallocation, and agile procurement, alongside an international strategy for India to shape emerging norms on military AI governance rather than merely inherit them.

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# Executive Summary

India confronts a rapidly widening military AI gap. Situated in a volatile neighbourhood characterised by active border disputes, nuclear-armed adversaries, and the prospect of simultaneous challenges on multiple fronts, the country's ability to integrate artificial intelligence into its armed forces is a strategic imperative. This report assesses India's military AI ecosystem, benchmarks domestic initiatives against the rapid advancements of China and the United States, and proposes a policy roadmap to close the gap.

Global military AI spending surged from approximately \$4.6 billion in 2022 to \$9.2 billion in 2023, with projections approaching \$38.8 billion by 2028. India has established foundational structures, the Defense AI Council, the Defense AI Project Agency, and 129 approved AI projects across the services, yet operational deployment remains constrained by fragmented data architectures, procurement timelines designed for hardware rather than software, and an annual dedicated military AI expenditure of roughly \$50 million, representing approximately 3 per cent of estimated Chinese investment. The international environment compounds these challenges. China's military-civil fusion strategy creates a seamless pipeline from commercial AI laboratories to battlefield deployment, while the January 2026 US Department of War directive mandating AI models free of vendor-imposed ethical guardrails signals an acceleration toward the development of unconstrained capabilities. Together, these developments risk a global race to the bottom in which competitive pressures override safety considerations and meaningful human control, leaving middle powers struggling to balance innovation with responsible governance.

Despite severe resource asymmetry, India possesses a distinctive advantage. The 2024 Evaluating Trustworthy AI (ETAI) Framework, released by the Defense Research and Development Organisation, represents a rigorous effort to institutionalise safety, reliability, and robustness as the foundations of military AI, an operational governance model that neither the United States nor China has matched. However, India operates within a data-doctrine gap. The absence of a unified, inter-service data architecture hinders the development of Joint All-Domain Command and Control capabilities, and the scope of AI integration has until recently been narrowly focused on autonomous systems and logistics rather than the full spectrum of intelligence analysis, decision support, cyber operations, and information warfare. India's path forward requires pivoting from a compliance-heavy posture to an active, operational stance, translating the ETAI Framework from a policy document into a deployed capability while maintaining ethical commitments.

This report recommends establishing a permanent Directorate of AI within the Integrated Defense Staff, tasked with formulating a comprehensive military AI adoption strategy and overseeing a centralised Unified Defense Data Cloud. It calls for a ring-fenced allocation of 1 per cent of the capital defense budget for AI-specific investment; the creation of a Specialised AI Cadre complemented by lateral recruitment of civilian experts, agile procurement models decoupled from hardware timelines; and a structured mechanism for scouting dual-use civilian AI technologies. Internationally, India should leverage its hosting of the 2026 AI Impact Summit and its engagement with the REAIM process to champion performance-based governance standards, an engineering-standards approach to military AI safety that offers a credible alternative to both unconstrained acceleration and unworkable prohibition. In today's era of rapid, unbridled adoption of military AI, India must transition from a passive recipient of global norms to an active shaper of governance frameworks, ensuring that international regulations do not stifle technological growth or the strategic autonomy of the Global South.

# The Accelerating Logic of Algorithmic Warfare

The integration of artificial intelligence and machine learning into defense and national security has shifted from a specialized interest to a primary global priority. Systems capable of performing tasks that typically require human intelligence, such as perception, learning, reasoning, and decision-making, now operate in dynamic environments with varying degrees of autonomy. The current era is defined by an AI arms race in which technological superiority is measured not only by bean-counting of defense platforms but also by the sophistication of the algorithms that can direct them. Russia's ongoing war on Ukraine has shown that AI-enabled systems in geospatial intelligence, unmanned operations, and cyber warfare play crucial roles on the battlefield, effectively transforming modern conflict zones into AI laboratories where theories of algorithmic warfare undergo real-time testing under combat conditions.<sup>1</sup>

Global trends have highlighted key applications that are redefining military capabilities across all domains of warfare. Autonomous systems, including uncrewed aerial vehicles, surface vessels, and submarines, increasingly demonstrate independent navigation and, in some cases, autonomous targeting decisions that compress the traditional observe-orient-decide-act cycle to fractions of a second.<sup>2</sup> Intelligence analysis platforms are employing computer vision and deep learning to process vast battlefield data, automating target recognition to provide commanders with unprecedented situational awareness. For instance, Israel's Lavender system has showcased AI's precision targeting capabilities using satellite imagery and communications data to identify and track targets with accuracy previously impossible through human analysis alone.<sup>3</sup>



*Shield AI executive, training Ukraine's Unmanned Systems Forces (USF) for operations with V-BAT, the vertical take-off and landing (VTOL) uncrewed aerial system (UAS) proven in electronic warfare environments. Source: Shield.ai*

Beyond kinetic applications, AI has shown its potential in neurotech applications exploring cognitive enhancement for personnel, promising to augment human decision-making capabilities under combat stress.<sup>4</sup> Similarly, AI deployment in cyber defenses is intended to identify vulnerabilities and respond to threats at speeds exceeding human capability, creating an offensive-defensive dynamic in which algorithmic speed determines survival. Furthermore, decision support systems use AI for war gaming and logistical

planning, enabling predictive maintenance that reduces operational downtime and optimizes supply chain management across theater-wide operations.

Major actors are leading these developments with distinct, increasingly divergent approaches to adopting military AI. In a memorandum dated January 9, 2026, US Secretary of War Pete Hegseth outlined the 'Artificial Intelligence Strategy for the Department of War,' emphasizing rapid adoption of AI to achieve military dominance through what the Pentagon now terms an 'AI-First' warfighting posture.<sup>5</sup> The strategy aims to reimagine every military workflow by leveraging AI as a foundational technology, drawing on combat-proven operational data from two decades of operations that no other military can replicate. The most controversial directive, 'No Usage Policy Constraints on Lawful Military Applications,' requires the Department to procure and use AI models free of vendor-imposed restrictions, such as content filters, ethical guardrails, or safety policies, that could hinder operations permitted under US law and existing Department of Defense rules on the use of force.<sup>6</sup> This policy fundamentally rejects the safety-first approach advocated by AI ethics researchers and prioritizes unrestricted capability over precautionary ethics. The directive has raised concerns among AI safety researchers and international law experts, who warn that it risks escalation, misuse, and the erosion of emerging norms on meaningful human control in warfare.

China pursues a fundamentally different model through its military-civil fusion strategy, which has officially affirmed intelligentization, the comprehensive adoption of AI and advanced technologies, as a core goal for military modernization by 2035.<sup>7</sup> This state-directed approach compels its massive private technology sector to share all advancements with the People's Liberation Army, enabling rapid scaling of civilian AI breakthroughs for military applications. China's fusion strategy has eliminated the traditional boundary between commercial innovation and defense procurement, creating a seamless pipeline from research laboratory to battlefield deployment. Similarly, Russia, despite severe economic constraints imposed by international sanctions, has prioritized automating significant portions of military equipment, viewing AI as a critical force multiplier that can compensate for quantitative disadvantages in personnel and conventional equipment through improved command, control, and decision-making capabilities. President Putin's statement, "Whoever becomes the leader in this sphere will become the ruler of the world," is a clear indication of Russia's imperative regarding military AI.<sup>8</sup>

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# China's Military AI Wish List

Key takeaways from 9,000+ PLA requests for proposal (2023–2024) on AI-enabled C5ISRT capabilities across all domains of warfare.

Source: Probasco, Bresnick & McFaul · CSET Georgetown · February 2026

## SCALE OF ACQUISITION

PLA RFPS, 2023–2024

<b>9,000+</b> AI-related RFPs analysed	<b>6 domains</b> Air, sea, land, space, cyber, cognitive	<b>3–6 mo</b> Typical acquisition timelines
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## C5ISRT DOMAINS

<b>Command &amp; Control</b> AI-DSS for strategic awareness, multi-domain coordination	<b>Maritime &amp; Undersea</b> Submarine tracking, acoustic detection — countering US naval edge	<b>Space</b> Orbital tracking, satellite assessment, space targeting
<b>Cognitive Domain</b> Deepfake generation & detection, psychological warfare	<b>Cyber</b> Active defence, encryption testing, quantum-resistant crypto	<b>Surveillance</b> Facial/gait recognition, device inspection, VPN monitoring

## KEY TAKEAWAYS

<b>01</b> <b>Broad AI Experimentation</b> PLA pursuing AI for <b>C5ISRT</b> in <b>every domain</b> — from strategic decision-support to sensor tools.	<b>02</b> <b>Countering US Advantages</b> Focus on <b>maritime awareness</b> and <b>space capabilities</b> . Undersea acoustic detection, satellite tracking.
<b>03</b> <b>AI Decision Support</b> AI-DSS <b>ingesting open-source data</b> to predict unrest and tensions. Compensating for <b>officer corps weaknesses</b> .	<b>04</b> <b>Cognitive Warfare &amp; Deepfakes</b> "Intelligent deepfake system" in 10+ languages, LLM-powered cognitive targeting.
<b>05</b> <b>Rapid Commercial Prototyping</b> 3–6 month timelines, small budgets. <b>Non-traditional vendors</b> via military-civil fusion.	<b>06</b> <b>Expansive Surveillance</b> Face recognition through masks, gait analysis, deleted data recovery. Single RFP: 1,000+ cameras.
<b>80+ asset swarm</b> AI-controlled over 200+ miles	<b>5M faces + 5M vehicles</b> Storage in single RFP

## IMPLICATIONS FOR COMPETITORS

<b>SENSING</b> <b>Counter-Sensing &amp; Deception</b> Maritime/space ISR demands counter-sensing and resilience investment.	<b>AI-DSS</b> <b>Rethink Military Signalling</b> AI-processed open-source data could complicate deterrence and escalation.			
<b>EXPORT CONTROLS</b> <b>US Hardware Enables PLA</b> PLA seeking NVIDIA/AMD chips; deploying DeepSeek LLMs trained on US GPUs.	<b>ACQUISITION</b> <b>Speed as Strategy</b> 3–6 month cycles should motivate acquisition reform and monitoring.			
<b>1,000+</b> Cameras, single RFP	<b>250+</b> Drones, base security	<b>350</b> Vehicles tracked at once	<b>97%</b> Face ID at 60° angle	<b>5M</b> Face records per system

The European Union offers another model, focusing on a human-centric, risk-based approach through its comprehensive AI Act.<sup>9</sup> While EU regulations largely exclude direct military applications from their scope, they shape global norms and emphasize the importance of accountability, transparency, and adherence to international humanitarian law. The Bletchley Summit in the United Kingdom in 2023<sup>10</sup> and its 2024 Seoul follow-up emphasized AI safety considerations,<sup>11</sup> while the 2025 Paris conference advanced inclusive declarations that recognized both opportunities and risks inherent in military AI adoption.<sup>12</sup> These European-led initiatives represent an attempt to establish a middle ground between unconstrained acceleration and complete prohibition.

Overall, we are witnessing unconstrained U.S. policy, combined with China's aggressive military-civil fusion and Russia's force-multiplier strategy, which together reveal a global arms race that leaves other nations facing difficult choices. Middle powers such as South Korea, the Netherlands, Canada, and Australia have increasingly advocated multilateral norms to mitigate the risk of escalation, recognizing that they cannot compete on raw spending but can help shape the regulatory environment.

Several diplomatic initiatives clearly indicate this, though progress remains fragmented and contested. For instance, the Responsible AI in the Military Domain (REAIM) meetings, with the 2023 summit in The Hague producing a Call to Action, the 2024 Seoul summit yielding a Blueprint for Action, and the most recent, the third summit in A Coruña, Spain, on February 4–5, 2026, adopting the REAIM 2026 Pathways to Action, to promote practical implementation measures (e.g., lifecycle oversight, human control, and industry guidelines), alongside a Framework of Responsible Industry Behaviour.<sup>13</sup> Beyond REAIM, the G7's 2023 Hiroshima AI Process (HAIP) adopted high-level guidelines for frontier AI development, with voluntary compliance from major AI developers and support from fifty-six countries through the HAIP Friends Group, though these frameworks largely address civilian applications.<sup>14</sup> Similarly, NATO has defined responsible AI use through six principles, including lawfulness, explainability, and bias mitigation, thereby demonstrating alliance members' commitment to coordinated standards.<sup>15</sup>

Much of this regulatory effort has centered on Lethal Autonomous Weapon Systems (LAWS), with the Convention on Certain Conventional Weapons establishing an expert group in 2013 and endorsing guiding principles in 2019 that emphasize the primacy of international humanitarian law, human supervision, and risk mitigation.<sup>16</sup> However, signatory states have not agreed on implementation pathways. 129 nations, including Brazil, China, Italy, and South Africa, continue to advocate for a legally binding agreement, while only 12 countries, including India, Russia, the United Kingdom, and the United States, oppose such constraints, and 54 remain undeclared. At the UN level, Resolution 79/239, adopted in 2024, and the upcoming 2026 Global Dialogue seek a binding treaty on LAWS by 2026, building on Austria's October 2023 resolution requesting the Secretary-General to survey member-state positions.<sup>17</sup> Furthermore, civil society organizations such as Stop Killer Robots and bodies such as the International Committee of the Red Cross have intensified advocacy for legally binding instruments. Yet, opposition from great powers has made a comprehensive agreement uncertain.<sup>18</sup>

# Global Military AI Systems: Comparative Overview

Key AI-enabled defence platforms by nation, developer, domain, and operational status

NATION	SYSTEM	DEVELOPER	DOMAIN	DESCRIPTION & STATUS
United States	Project Maven	NGA / DoD / Palantir	Command / Intel	ML for ISR data, target ID, decision-making; <b>deployed</b>
	Defense Llama	Scale AI	Command / Control	Command, targeting, report synthesis; <b>demonstrated</b>
	MQ-9 Reaper	General Atomics	Air	AI-enabled target identification and tracking drone
	Orca XLUUV	Boeing	Sea (Submarine)	Long-range autonomous submarine drone; <b>demonstrated</b>
	Hivemind	Shield AI	Command / Air	AI for drone swarm coordination; <b>deployed</b>
	XQ-58A Valkyrie	Kratos	Air	Stealthy autonomous wingman aircraft; <b>in development</b>
	Sea Hunter	Leidos	Sea	Autonomous naval vessel for ASW
China	ACE	DARPA	Air	Autonomous air-to-air combat programme
	ChatBIT	PLA (researchers)	Command / Control	Military AI on Meta Llama; <b>demonstrated</b>
	JARI-USV-A	CSSC	Sea	Autonomous patrol ship; <b>demonstrated</b>
	Jetank	AVIC	Air	Swarm drone carrier; <b>demonstrated</b>
	DeepSeek (Mil.)	Xi'an Tech Univ.	Simulation	Foundation model for military simulations
Russia	Intelligentization	PLA	Strategy	AI + swarm tech to overwhelm missile defences
	Lancet	ZALA Aero	Loitering Munition	Autonomous targeting; <b>combat-proven, Ukraine</b>
	Uran-9	Kalashnikov Group	Land	Artillery UGV; <b>deployed</b>
	Geran-2	Alabuga	Loitering Munition	Loitering munition; <b>deployed</b>
Israel	Abzats	NVP Geran	Land	Anti-drone warfare vehicle; <b>deployed</b>
	Lavender	IDF	Command / Targeting	AI target recommendations in Gaza
	Gospel	IDF	Command / Intel	AI data processing for precision targeting
Ukraine	Harpy	IAI	Loitering Munition	Radar-seeking loitering munition (early LAWS)
	Saker Scout	Saker	Air	Quadcopter drone; <b>deployed</b>
France	MetaConstellation	Palantir (for Ukraine)	Command / Intel	Satellite imagery + intel for long-range strikes
	Artemis	Min. of Armed Forces	Command / Intel	Big-data platform for autonomous intel and C2
Germany	cortAIx	Thales	Sensors	AI accelerator for sensor object detection
	Helsing AI	Helsing	Software	AI for weapon systems and battlefield decisions
Iran	Ababil-5	HESA	Air	Armed ISR drone; <b>deployed</b>
	Mohajer-6	Qods Aviation	Air	Armed ISR drone; <b>deployed</b>
Turkey	Kargu	STM	Loitering Munition	Loitering munition; <b>deployed</b>
Estonia	THeMIS	Milrem	Land	Artillery UGV, autonomous nav; <b>deployed in Ukraine</b>
India	TAIWS	Indian Army	Land	Border defence robot; <b>demonstrated</b>
EU (Joint)	AMIDA-UT	PESCO Project	Intel / Training	Automated mapping, ID, damage assessment
	SWADAR	EDA Prize Winner	Air / Intel	AI-enabled drone swarm tracking

# India's Military AI Policy Evolution

India's entry into military AI must be viewed through the lens of its unique and increasingly complex security environment. The country faces a two-front threat that demands a sophisticated technological response. Northward, the People's Liberation Army is systematically integrating AI into command-and-control structures and deploying autonomous systems in Tibet's high-altitude terrain.<sup>19</sup> While the 2020 Galwan Valley clash was fundamentally a close-quarters physical confrontation fought without significant technological enablers, it underscored the extreme conditions, high altitude, sub-zero temperatures, and limited connectivity that define this operational theatre. Subsequent military build-ups along the Line of Actual Control have increasingly incorporated AI-enabled surveillance, autonomous logistics platforms, and unmanned systems, signalling that future confrontations in this region will involve not just soldiers but also algorithmic decision-support systems operating in environments where altitude and cold severely compromise human cognition. Westward, concerns remain about Pakistan's ability to leverage low-cost autonomous technologies and cyber capabilities to maintain asymmetric pressure.

This technological shift has created new dimensions of strategic instability, particularly regarding the dynamics of nuclear escalation. Decision-making cycle compression, the OODA loop acceleration, can escalate military engagements into rapid, unpredictable conflicts before human diplomats or even senior commanders can intervene to de-escalate.<sup>20</sup>

India's formal engagement with AI began with the 2018 national strategy known as #AIforAll, which primarily focused on AI's potential for social inclusion and economic growth through applications in agriculture, healthcare, education, and financial inclusion.<sup>21</sup> However, the defense implications quickly gained recognition within the Ministry of Defense, leading to the establishment of the Defense AI Council in 2019 to provide strategic policy direction and the Defense AI Project Agency, its executive arm, responsible for translating policy into deployed technology.<sup>22</sup> Several milestones have marked India's modest progress since these institutional foundations were established. In 2021, the successful demonstration of a heterogeneous 75-drone swarm during the Army Day parade showcased India's growing tactical capability in autonomous systems, with drones coordinating reconnaissance missions with minimal human intervention.<sup>23</sup> This was followed by the 2022 launch of 75 priority AI products, spanning diverse domains, from facial recognition systems for border security to predictive maintenance algorithms for aging military equipment and language translation tools that enable real-time communication across India's linguistically diverse armed forces.<sup>24</sup>

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A watershed moment in India's policy evolution arrived with the 2024 release of the Evaluating Trustworthy AI (ETAI) Framework and corresponding Guidelines by the Scientific Analysis Group of the Defense Research and Development Organisation. This framework is India's first comprehensive set of technical criteria for assessing whether AI systems are safe, reliable, and secure for military use...The ETAI is built upon five non-negotiable principles that distinguish India's approach from both the unconstrained US model and the opaque Chinese system.

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The ETAI is built upon five non-negotiable principles that distinguish India's approach from both the unconstrained US model and the opaque Chinese system. These principles are:

- Reliability and Robustness, ensuring systems perform consistently across diverse operational conditions;
- Transparency, providing explainability for algorithmic decisions;
- Fairness, preventing discriminatory outcomes, though this receives less emphasis in purely military contexts;
- Privacy, protecting sensitive operational data;
- and Safety and Security, mandating protection against adversarial attacks and system failures.

In the defense domain, the framework prioritizes reliability, robustness, safety, and security, while recognizing that ethical principles such as fairness and privacy may vary in importance across specific operational contexts. For high-risk systems involving lethal autonomous weapons or critical border surveillance, the framework mandates a human-in-the-loop approach, ensuring that human judgment remains the final arbiter of force and aligns with India's consistent position at the United Nations Convention on Certain Conventional Weapons, which holds that lethal force must remain under meaningful human control.<sup>26</sup>

This commitment to trustworthy AI positions India distinctly in the global landscape, as the ETAI framework is a middle path between unrestrained use (US) and opacity, and could serve as a model for other middle powers and developing nations.

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# India's Institutional Framework and Operational Reality

Over the years, India has transitioned from a decentralized approach characterized by service-specific initiatives to a structured governance model anchored by the Ministry of Defense. The apex of this architecture comprises the Defense AI Council (DAIC), which provides a broad strategic vision, identifies the military's most pressing technological requirements, and allocates resources across competing priorities.

The Defense AI Project Agency (DAIPA) serves as the executive arm, responsible for the practical implementation that ensures high-level policy translates into field-deployed technology rather than remaining a theoretical framework.<sup>27</sup> This centralized leadership complements service-specific centers of excellence that cater to unique operational environments of each armed forces branch, recognizing that AI applications for high-altitude warfare differ fundamentally from those for maritime domain awareness or aerospace operations.

GOVERNANCE PIPELINE			
01 Apex Body <b>Defence AI Council</b>	→	02 Executive Arm <b>DAIPA</b>	→
03 R&D Engine <b>DRDO / CAIR</b>			
→	04 Deployment <b>Service Centres</b>		
SERVICE CENTRES OF EXCELLENCE		OPERATIONAL TESTBEDS BY BRANCH	
ARMY	NAVY	AIR FORCE	
<b>Indian Army</b> MCTE, Mhow Predictive logistics, telemetry processing, border surveillance, drone swarming	<b>Indian Navy</b> INS Valsura, Jamnagar Underwater domain awareness, submarine acoustic detection, vessel tracking in IOR	<b>Indian Air Force</b> UDAAN, Rajokri Airspace management, image analysis, target recognition, C4ISR, predictive maintenance	
<b>85+</b> AI use cases identified	<b>8–10</b> Known AI initiatives	<b>5–8</b> Identified projects	
<b>129</b> Approved AI projects	<b>140+</b> AI-enabled border surveillance systems	<b>₹400 cr</b> Annual dedicated military AI allocation	<b>~3%</b> Of China's estimated PLA AI spending

The Indian Army's AI Centre at the Military College of Telecommunication Engineering in Mhow serves as the primary testbed for land-based systems, including predictive analytics for logistics to anticipate supply requirements before units request them and telemetry data processing for armored units, enabling predictive maintenance and reducing breakdowns during operations.<sup>28</sup> The Indian Navy, through its center at INS Valsura in Jamnagar, focuses on underwater domain awareness as a critical capability for securing India's vast maritime periphery and monitoring Chinese submarine activity in the Indian Ocean Region.<sup>29</sup> The center employs machine learning algorithms to distinguish natural acoustic signals from mechanical signatures of adversarial submarines, a technically demanding challenge given the complexity of underwater acoustic environments and the sophistication of modern submarine quieting technologies. Similarly, the Indian Air Force's Unit for Digitisation, Automation, AI, and Application Networking focuses on airspace management for one of the world's most congested airspaces and predictive maintenance for aircraft fleets, where unplanned groundings can significantly degrade operational readiness.

Operational deployment has reflected this institutional architecture through an expanding portfolio of AI applications across all three services, though exact project counts remain classified or aggregated under Ministry of Defense reporting. According to openly sourced information, the Indian Army has identified more than 85 AI use cases spanning intelligence, surveillance, and reconnaissance (ISR), drone swarming, predictive analytics, and logistics optimization, with 23 AI-driven applications already deployed and more than 140 AI-enabled surveillance systems operational along the borders. The Indian Navy has approximately 8-10 known AI initiatives focused on underwater domain awareness and maritime vessel tracking.<sup>30</sup> The Indian Air Force is similarly pursuing 5-8 identified projects emphasizing image analysis for target recognition, C4ISR integration, and autonomous navigation capabilities, including integration into modernization programs such as the Netra Mk2 Airborne Early Warning and Control System.<sup>31</sup> Collectively, these service-specific efforts respond to the 75 priority AI initiatives launched in 2022, which were subsequently expanded to 129 approved projects, of which 77 were completed as of February 2026, as per publicly available information.

The DAIPA coordinates these initiatives and is supported by a broader ecosystem, including 113 startups contracted through the iDEX mechanism, with 76 projects already awarded.<sup>32</sup> Post-Operation Sindoora, the emphasis on AI applications in ISR and autonomous systems has accelerated deployment timelines, though detailed project specifications and performance metrics remain classified for operational security.<sup>33</sup> This portfolio operates within the modest [~\$46 million] ₹400 crore annual dedicated allocation and the broader DRDO capital expenditure framework, highlighting tensions between expanding operational requirements and constrained resources that necessitate prioritization and frugal innovation.

DRDO / CAIR R&D PORTFOLIO		
<b>AINCO</b> AI for net-centric ops — knowledge bases, semantic handling, inference reasoning	<b>CIDSS</b> Command information & decision support — tactical data fusion & visualisation	<b>MARF</b> Multi-agent robotics — Wall Climber, Snake robots, image recognition
<b>Himshakti EW</b> Integrated electronic warfare — surveillance, jamming, SIGINT, direction finding	<b>UAV Fleet</b> Nishant, Lakshya, Rustom, Netra — autonomous ISR & guidance	<b>DSS Framework</b> MCDM, swarm algorithms, game theory, SLAM, path planning

#### NEW – FEB 2026 Indian Army Indigenous AI Applications — AI Impact Summit, New Delhi

<b>SAM-UN</b> Geospatial situational awareness • ISR	<b>Nabh Drishti</b> Mobile telemetry reporting • ISR	<b>PRAKSHEPAN</b> Disaster & climate prediction • ISR	<b>Deepfake Detection</b> Counter synthetic media • Cyber	<b>XFace</b> AI facial recognition • Cyber
<b>EKAM</b> Air-gapped AI cloud • Infra	<b>AI-in-a-Box</b> Portable edge AI • Infra	<b>Vehicle Tracking</b> Fleet monitoring & logistics • Logistics	<b>Driver Fatigue</b> Real-time drowsiness alerts • Logistics	<b>AI Examiner</b> Automated assessment • Training

• ISR & Awareness • Cyber & Infosec • Infrastructure • Logistics • Training

Further, while the ETAI Framework provides excellent technical standards and the institutional architecture ensures its application, the pace of operational deployment remains constrained by organizational culture, procurement procedures, and the inherent conservatism of military institutions, which prioritize reliability over innovation.

Beyond these institutional efforts, there are indications that India's defense-industrial base is progressively integrating AI across the production lifecycle. In February 2025, the Director of the Defense Research and Development Laboratory stated that the laboratory is using AI to streamline the production of its Agni, Prithvi, and Akash missile variants.<sup>34</sup> AI algorithms have demonstrated strong capabilities in analysing datasets encompassing material properties, aerodynamic models, and propulsion dynamics to predict performance, identify flaws, and suggest improvements in real time. Such precision manufacturing capabilities have the potential to facilitate the integration of new sensors, propulsion upgrades, and warhead enhancements applicable to hypersonic platforms.<sup>35</sup>

Further, India possesses nuclear- and dual-capable platforms that appear to have some degree of AI integration. The Rafale F3-R fighters, delivered between 2016 and 2022 and listed among India's nuclear forces, include the Thales cortAlx accelerator, which reportedly processes airborne imagery up to 100 times faster than previous models.<sup>36</sup> In April 2025, India and France signed an Inter-Governmental Agreement (IGA) for the procurement of 26 Rafale Marine (Rafale-M) aircraft capable of delivering nuclear weapons, thereby bolstering India's second-strike capability. While the exact nature of AI integration in these aircraft is unclear, it is likely being employed to enhance tactical advice, survivability, data fusion, and predictive maintenance.<sup>37</sup>

Similarly, the Indian Navy is reportedly incorporating AI into its Integrated Platform Management System (IPMS) for next-generation warships, including nuclear vessels. IPMS is a comprehensive control and monitoring system that integrates various shipboard systems, including propulsion, electrical, auxiliary, and damage control, into a unified framework to provide real-time data, condition-based control, and diagnostics.<sup>38</sup>

India has also sought to field a range of AI-enabled autonomous systems across the air, land, sea, and space domains, with an overarching focus on addressing challenges at its borders. India's unmanned combat aerial vehicles (UCAVs) and platforms such as the Ghatak, a stealthy, jet-powered UCAV under development by the Defense Research and Development Organisation (DRDO), reflect India's ambition to develop autonomous combat capabilities.<sup>39</sup> The DRDO's Centre for Artificial Intelligence and Robotics has been developing the Multi Agent Robotics Framework, which would enable the Indian Army's battlefield robotic combat vehicles to collaborate on surveillance and reconnaissance, while developing specialised UAVs for detecting chemical, biological, radiological, and nuclear (CBRN) contamination.<sup>40</sup>

In the maritime domain, Larsen & Toubro showcased unmanned underwater vehicles (UUVs) at the Indian Defense Expo in 2020, including one with an endurance of 8 hours and an operational depth of 1,500 feet.<sup>41</sup> Similarly, others, such as Krishna Allied Defense and Mazagon Dock Shipbuilders, are reportedly developing extra-large UUVs and autonomous underwater vehicles with swarming capabilities.<sup>42</sup> The DRDO is also

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contributing to UUV development, with unmanned vehicles designed for launch from submarines to enhance surveillance, decoy operations, and potential conventional strike operations.<sup>43</sup>



*The Amogh is a deep-water Autonomous Underwater Vehicle (AUV) developed by L&T Precision Engineering and Systems (in collaboration with EdgeLab, Italy), specifically designed for modern hydrographic surveys. It meets IHO S-44 special order standards, delivering high-quality, high-resolution data with excellent positional accuracy.*  
Source: Indian Aerospace and Defense Bulletin



*The Ghatak is an autonomous, jet-powered, stealth unmanned combat air vehicle (UCAV) being developed by the Aeronautical Development Establishment (ADE), DRDO.*  
Source: [www.defence.in](http://www.defence.in)

The breadth of India's military AI ambitions was demonstrated at the AI Impact Summit in February 2026, where the Indian Army showcased a suite of indigenously developed applications spanning operational, administrative, and cyber domains. These included SAM-UN, a geospatial and AI-enabled situational awareness platform for mission planning, disaster response, and smart command centres; PRAKSHEPAN, an AI-driven climatology and disaster prediction system providing advanced alerts for landslides, floods, and avalanches; and EKAM, a secure, air-gapped indigenous AI-as-a-Service cloud platform ensuring data sovereignty in military operations.<sup>45</sup> In the intelligence and security domain, the Army presented XFace, an AI facial recognition system for identity verification; Deepfake Detection and AI Cyber Security Systems for countering synthetic media, malware, and threats to critical digital infrastructure; and Nabh Drishti, a mobile telemetry-based real-time reporting and visualisation platform. For logistics and force sustainment, the showcase included a Vehicle Tracking System for AI-enabled fleet monitoring and logistics optimisation, a Driver Fatigue Detection device for real-time drowsiness alerts, and AI-in-a-Box, a portable edge AI platform for secure deployment in remote or disconnected environments. The AI Examiner, an automated assessment and feedback system, demonstrated the applications of AI in military education and training.<sup>46</sup>

# India's Challenges: Technology, Resources, and Data

The primary technical requirement for any military AI system is high-quality, representative data that captures the full diversity of operational conditions the system will encounter. The ETAI Guidelines correctly emphasize that data preparation - including cleaning, labeling, and augmentation - constitutes the most critical phase of the AI pipeline, often accounting for 80% of development effort. However, the Indian Armed Forces currently operate within a data silo, which fundamentally undermines this requirement. The three services employ distinct legacy systems that do not communicate with each other, reflecting decades of separate modernization paths and the absence of a joint warfare doctrine. This fragmentation hinders the development of Joint All-Domain Command and Control capabilities, in which sensor data from all services is integrated into a unified operational picture.

Additionally, India faces a particularly acute challenge in Out-of-Distribution (OOD) data detection, a technical problem that has bedeviled AI researchers and has profound implications for military applications. AI models, particularly deep neural networks that power most modern applications, are often brittle, performing excellently on data similar to their training set but failing catastrophically when encountering inputs that differ even slightly from expected patterns. For instance, a drone trained exclusively for desert operations in Rajasthan's Thar Desert might experience complete performance degradation if deployed in Ladakh's high-altitude, snow-covered terrain, where lighting conditions, thermal signatures, and even atmospheric density differ fundamentally. The model might misclassify rocks as vehicles, fail to detect camouflaged positions, or malfunction due to temperature extremes absent from the training data. The ETAI Framework refers to this vulnerability by mandating that systems include uncertainty estimation techniques to quantify confidence levels and automatically hand off to human operators when confidence falls below acceptable thresholds; however, implementing such safeguards adds computational overhead and development complexity.

The modern battlefield constitutes a contested digital environment where adversaries actively target India's AI models through increasingly sophisticated attacks. The ETAI Guidelines identify a new vulnerability class, adversarial attacks, which exploit the mathematical properties of neural networks rather than traditional software bugs. These attacks include evasion attacks, where adversaries craft inputs that are imperceptible to humans but deceive AI models into incorrect predictions, such as subtly modified images that cause facial recognition systems to misidentify individuals or altered radar returns that make missiles invisible to detection algorithms. Poisoning attacks represent an even more insidious threat, in which adversaries inject malicious data into training sets to systematically degrade performance or

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create 'backdoors' that activate under specific trigger conditions. An adversary who compromises the training data pipeline could insert samples that cause the autonomous weapon system to ignore certain vehicle types or misclassify friendly forces as threats. Defending against these attacks requires 'adversarial training', which incorporates malicious samples into the training process to harden models, but this exponentially increases computational requirements and development costs, potentially necessitating specialized hardware and months of additional training time.

Beyond technical challenges, effective AI integration faces human and organizational obstacles that cannot be resolved by engineering alone. The military's traditional rotation policy, which transfers officers every two to three years to ensure broad experience and prevent parochialism, is fundamentally antithetical to developing deep technical expertise in AI, which requires years of specialized knowledge to maintain and operate effectively. There is a critical skills gap in which technology often outpaces operators' ability to supervise it effectively, creating dangerous situations in which personnel lack the understanding to recognize when systems malfunction or when algorithmic recommendations should be questioned. Furthermore, cultural resistance within armed forces to ceding decision-making authority to algorithms persists at multiple levels, especially when algorithmic errors could result in fratricide or civilian casualties. Establishing trust through explainability mechanisms that provide transparent reasoning for AI outputs is essential. Therefore, the ETAI Framework suggests Model Cards documenting system capabilities and limitations and post-hoc explainability methods, but implementation requires sustained cultural change.

In addition, India faces a stark resource asymmetry that compounds these technical and organizational challenges. Unlike some major powers, India does not maintain a single dedicated budget line for artificial intelligence across all three services in the Union Budget. Instead, military AI funding is integrated and fragmented, drawn from broader allocations including DRDO appropriations, capital outlay for modernization, and service-specific earmarks. Following the 2019 establishment of the Defense AI Council and the Defense AI Project Agency, the Ministry of Defense directed each service, the Army, Navy, and Air Force, to earmark [~\$11.5 million] ₹100 crore annually from existing budgets for AI-specific applications.<sup>46</sup> Combined with DAIPA's separate [~\$11.5 million] ₹100 crore annual allocation for overarching AI projects and infrastructure, this totals approximately [~\$46 million] ₹400 crore per year for dedicated military AI efforts, supporting service-specific centers at Mhow for the Army, INS Valsura for the Navy, and Rajokri for the Air Force.<sup>47</sup>

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This funding operates within a broader defense budgetary context. The FY 2026-27 Ministry of Defense allocation reached [~\$90 billion] ₹7.85 lakh crore, representing the highest-ever share of the Union Budget at 14.67 percent, with capital outlay for modernization at [~\$25 billion] ₹2.19 lakh crore. DRDO's allocation increased to [~\$3.3 billion], ₹29,100.25 crore, of which [~\$2 billion], ₹17,250.25 crore, was designated for capital expenditure, including AI-relevant research and development.<sup>48</sup> However, AI remains embedded within these broader categories rather than scaled dramatically as a standalone priority. The initial five-year commitment for the [~\$11.5 million] ₹100 crore per-service earmarks, launched around 2019-2020, has continued through internal reallocations, with recent examples including [~\$11.5 million] ₹100 crore contracts awarded to startups such as Indrajaal for AI counter-drone systems.<sup>49</sup>

#### ANNUAL DEDICATED MILITARY AI INVESTMENT

UNITED STATES	CHINA	INDIA
<b>United States</b> Market-driven / AI-First Warfighting <b>\$13.4 bn</b> FY2026 dedicated autonomy & AI (first standalone budget line) <b>Model:</b> Rapid adoption via DoW AI-First strategy (Jan 2026) <b>Key policy:</b> No vendor-imposed usage constraints on lawful military applications <b>Asset:</b> Two decades of combat-proven operational data	<b>China</b> Military-Civil Fusion / Intelligentization <b>\$1.6 bn+</b> Estimated PLA AI programmes (2024) <b>Model:</b> State-directed fusion compels private sector to share all advances with PLA <b>Key policy:</b> Intelligentization as core modernization goal by 2035 <b>Asset:</b> Seamless pipeline from research lab to battlefield	<b>India</b> ETAI Framework / Trustworthy AI <b>\$46 mn</b> Dedicated military AI allocation (₹400 crore) <b>Model:</b> Risk-based ETAI framework with human-in-the-loop mandates <b>Key policy:</b> Meaningful human control; compliance-by-design procurement <b>Asset:</b> Software engineering talent; frugal innovation ecosystem

#### US FY2026 AI & AUTONOMY BREAKDOWN

\$13.4 BILLION – FIRST DEDICATED BUDGET LINE

\$9.4 bn Unmanned & remote aerial vehicles	\$1.7 bn Maritime autonomous platforms	\$734 mn Underwater systems	\$210 mn Autonomous ground vehicles	\$1.2 bn Software / cross-domain integration
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#### RELATIVE SCALE OF INVESTMENT



#### INDIA – DEFENCE BUDGET CONTEXT (FY 2026-27)

\$90 bn Total MoD allocation (₹7.85 lakh crore)	\$25 bn Capital outlay (₹2.19 lakh crore)	\$3.3 bn DRDO allocation (₹29,100 crore)	\$46 mn Dedicated military AI (₹400 crore)
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This allocation structure reflects India's approach to treating AI as an enabling, cross-cutting technology rather than a separate vertical with a dedicated funding stream, but it creates profound asymmetries relative to competitors. For instance, investment in military AI by the United States has increased dramatically; the Department of Defense has requested a record \$13.4 billion in dedicated, standalone funding for autonomy and AI systems in FY2026. This is the first time such a specific budget line has been allocated, covering areas like \$9.4 billion for unmanned and remotely operated aerial vehicles, \$1.7 billion for maritime

autonomous platforms, \$734 million for underwater systems, \$210 million for autonomous ground vehicles, and \$1.2 billion for software/cross-domain integration.<sup>50</sup> Further, though China's spending through an opaque military-civil fusion budget remains difficult to isolate precisely for PLA AI programs alone, total defense estimates far exceed official figures (e.g., official 2025 budget ~\$246 billion, with independent assessments like SIPRI at ~\$314 billion for 2024 and higher ranges in some analyses up to ~\$330–471 billion or more, incorporating broader AI-enabling investments).<sup>51</sup>

India's \$46 million dedicated allocation represents less than 3 percent of Chinese spending.<sup>52</sup> Further, China's state-directed model enables rapid scaling of civilian AI advances for military use, with private companies compelled to share breakthroughs immediately with the PLA. In contrast, India relies on market-based mechanisms such as iDEX that operate more slowly and face resource constraints, as evidenced by the civilian IndiaAI Mission's budget being halved from [~\$230 million] ₹2,000 crore to [~\$115 million] ₹1,000 crore in FY 2026-27.<sup>53</sup> This funding is insufficient to enable the rapid scaling required to address emerging threats, and significant increases are recommended for computational infrastructure, adversarial training, and talent retention. Without a substantial increase in dedicated R&D funding beyond current embedded allocations and a decisive shift toward a centralized high-performance computing infrastructure capable of meeting the computational demands of modern AI training, India risks falling permanently behind in the global technological race.

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## International Norms and India's Leadership Opportunity

The challenges of military AI governance stem from a fundamental mismatch between problem structure and proposed solutions. Existing frameworks assume AI governance resembles nuclear non-proliferation - identifiable hardware, binary possession states, and inspectable facilities. However, military AI appears to defy this model: algorithms are inherently software-based, dual-use, and verification requires assessing system behavior rather than counting deployable units. This mismatch explains why, while 129 nations can demand a binding LAWS treaty, the twelve opponents who control the majority of global AI development capacity can dismiss such proposals as technically unworkable rather than merely politically inconvenient.

India's approach holds some value in resolving this impasse, given its unique epistemic position. Unlike the US and China, whose AI strategies prioritize capability maximization, India has operationalized risk-based assessment by implementing the ETAI Framework across service-specific deployments. Unlike European middle powers that advocate safety-first approaches from positions of technological dependence, India is balancing the deployment of indigenous systems under resource constraints that demand reliability. This combination of operational military AI programs governed by explicit trustworthiness criteria produces a unique body of knowledge on AI applications in the military domain.

India's opposition to the binding LAWS treaty, alongside that of Russia, the United Kingdom, and the US, appears to align Delhi with great-power exceptionalism. The analytical distinction is that India opposes binding restrictions while advocating mandatory performance standards. Additionally, India's position is grounded in the understanding that prohibiting autonomous weapons requires defining autonomy, which proves philosophically intractable and strategically counterproductive (adversaries simply redefine their systems). Therefore, mandating that any lethal system, regardless of autonomy level, demonstrate resilience against adversarial attacks, out-of-distribution inputs, and uncertain environments through standardized testing creates verifiable obligations without definitional disputes. This approach treats AI governance as an engineering standards problem, analogous to aviation safety, rather than an arms-control problem, analogous to chemical-weapons prohibition.

However, India has not done enough to present the ETAI framework as an operational necessity in the international fora. In its cautious participation in several international efforts, including, but not limited to, the REAIM summits, India has adopted a wait-and-see approach. This may be because the technology is so new that India prefers to retain its strategic flexibility and avoid commitments that could impede its military modernization. Another explanation is that India would prefer to first de-risk its military AI supply chains, either through indigenization or by identifying trusted partners. Yet none of this should prevent India from working with like-minded middle powers, such as the Netherlands and South Korea, to advance its own approach internationally. Its internal progress in integrating AI into the military domain can go hand in hand with its vocal support for international regulations, even if those regulations are voluntary.

The analytical case for Indian leadership thus rests on three pillars: epistemic advantage from the operational implementation of trustworthy AI, strategic necessity arising from South Asian nuclear-escalation risks that create material incentives for stability mechanisms, and applicability to resource-constrained nations that constitute the majority of the global community. Whether India converts these advantages into effective

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governance also depends on its willingness to share empirical evidence from ETAI implementation - success metrics, failure analyses, and cost-benefit assessments - transparently, a practice that military establishments instinctively resist.

#### STRATEGIC APPROACH COMPARISON

DIMENSION	UNITED STATES	CHINA	INDIA
Integration Model	Market-driven; vendor contracts with DoW	State-directed military-civil fusion	Govt-led via DAIC/DAIPA; iDEX startups
Ethical Framework	• No vendor constraints on lawful ops	• Opaque; limited transparency	• ETAI: risk-based, HITL mandated
Human Control	"Human judgement" (conventional); "human control" (nuclear)	"Human control over relevant weapon systems" (2025)	"Meaningful human control"; human-in/on-the-loop
REAIM Endorsed	• Yes — endorsed 2023 Call to Action	• No — did not endorse	• No — did not endorse
LAWS Treaty	• Opposes	• Advocates legally binding instrument	• Opposes; favours performance standards
Transparency	High — prolific official/unofficial reports	Low — limited NC3 transparency	Medium — ETAI published; ops data classified

## Roadmap to Algorithmic Sovereignty in Military AI

To move toward an integrated operational capability, India requires a structural overhaul that synchronizes policy, procurement, and personnel management. The following recommendations can help operationalize the ETAI Framework principles and address resource constraints that differentiate India from wealthier competitors.

The most urgent requirement is to establish a permanent Directorate of AI (DoAI) within the Integrated Defense Staff, with authority comparable to that of the existing directorates for operations, intelligence, and logistics. While the Defense AI Project Agency has been effective in project management, a high-level Directorate with three-star leadership is necessary to integrate AI into military doctrine, influence joint force planning, and command resources commensurate with AI's strategic importance. Its primary task should be to formulate a comprehensive strategy for AI adoption across the military, providing clear direction on how AI is to be integrated into doctrine, operations, training, and procurement, filling a critical gap that currently leaves service-specific initiatives without overarching strategic coherence. This body should also be empowered to oversee the creation of the Unified Defense Data Cloud - a secure, tri-service infrastructure designed to break existing data silos that currently fragment information across service boundaries. Without a common data lake that integrates sensor feeds from the Navy's P-8I maritime patrol aircraft, the Army's border surveillance systems, and the Air Force ELINT platforms, India will remain unable to achieve Joint All-Domain Command and Control capabilities essential for modern high-tempo conflict. The technical architecture should prioritize interoperability standards, implement robust cybersecurity measures to protect against adversarial access, and establish clear data governance to prevent misuse while enabling legitimate analysis.

Furthermore, the Ministry of Defense must institutionalize the Compliance-by-Design philosophy, ensuring AI considerations are integrated into procurement from inception rather than as an afterthought. Every new

capital acquisition, from Advanced Medium Combat Aircraft to new submarine classes, should include mandatory AI-interoperability specifications in request-for-proposal documents and contract terms. As the recent Indian Army AI Roadmap 2026-27 acknowledges, retrofitting AI into legacy systems is a vital short-term measure for existing platforms, but future acquisitions must be 'AI-native' from the design phase to avoid brittleness and distribution-shift failures inherent in patch-on software that was never architected for machine-learning integration. This requires updating military requirements documents, training procurement officials in AI basics, and potentially restructuring contracting processes to accommodate iterative development cycles that AI demands.

India must also address its revolving door problem in technical expertise through fundamental reform of military rotation policies. The current system, which transfers officers every two to three years, is fundamentally incompatible with the deep technical specialization required for AI model maintenance, adversarial defense, and algorithm development. Therefore, establishing a Specialized AI Cadre within the armed forces is essential. Equally important, the armed forces must adopt a model for lateral recruitment of civilian AI experts, data scientists, machine learning engineers, and cybersecurity specialists, on contract or deputation, recognizing that relying solely on uniformed personnel will restrict the available talent pool at a time when global competition for AI expertise is intense. Such a civil-military talent integration model, drawing on the precedent of lateral entry in the US and Israeli defense establishments, would provide immediate access to cutting-edge skills while building institutional capacity over time.

Importantly, fiscal asymmetry with China necessitates a shift toward frugal innovation that maximizes capabilities from limited resources by leveraging India's software engineering talent and entrepreneurial ecosystem. The current allocation structure is insufficient.<sup>54</sup> India should establish an explicit, ring-fenced allocation of 1 percent of the total capital defense budget specifically for AI-driven software, R&D, and computing infrastructure, representing a fivefold increase over current dedicated spending. This ring-fenced allocation must be protected from budget cuts during fiscal constraints, ensuring predictable multi-year funding that enables sustained research programs while remaining affordable within the Indian defense budget. The allocation should consolidate and significantly expand beyond current fragmented service-specific earmarks, creating a unified fund managed by the proposed Directorate of AI with transparent allocation across joint priorities, service-specific applications, and infrastructure development.

Furthermore, the procurement process must be uncoupled from traditional hardware timelines. Software code that requires weekly or even daily updates to defend against evolving adversarial threats and to

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incorporate new capabilities cannot be procured through the same three- to five-year cycles used for fighter jets. The Ministry should adopt agile procurement models that enable rapid, iterative updates through framework contracts and cloud-based software-as-a-service deployments for non-kinetic applications, with security architectures allowing continuous patching without compromising operational security. Current examples, such as the Indrajaal counter-drone contract, demonstrate a willingness to engage startups, but procurement velocity must increase dramatically, with contract award timelines measured in months rather than years. Given that the overwhelming majority of AI breakthroughs in computer vision, natural language processing, generative AI, and reinforcement learning originate in industry, the military must also continuously engage with the civilian technology sector to identify AI solutions with dual-use potential. A structured technology-scouting mechanism could be institutionalised, potentially through a dedicated civil-military AI liaison cell within the proposed Directorate of AI.

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FOUNDATIONAL REFORMS		STRUCTURAL PREREQUISITES	
<b>GOVERNANCE</b>	<b>TALENT</b>	<b>FISCAL</b>	
<p><b>Institutional Architecture</b> Directorate of AI + Unified Data Cloud</p> <ul style="list-style-type: none"> <li>Establish permanent <b>Directorate of AI</b> under Integrated Defence Staff with three-star leadership</li> <li>Formulate <b>comprehensive military AI strategy</b> across doctrine, operations, training, and procurement</li> <li>Build <b>Unified Defence Data Cloud</b> — secure tri-service infrastructure breaking inter-service silos</li> <li>Mandate <b>Compliance-by-Design</b> — AI-interoperability specs in all new capital acquisitions</li> </ul>	<p><b>Personnel &amp; Expertise</b> Specialised cadre + civilian integration</p> <ul style="list-style-type: none"> <li>Create <b>Specialised AI Cadre</b> — 'Scholar Warriors' with 7–10 year technical postings</li> <li>Institute <b>lateral recruitment</b> of civilian AI experts — data scientists, ML engineers, cyber specialists</li> <li>Establish partnerships with <b>IITs, IISc, and DIAT</b> for continuous AI education</li> <li>Set up <b>civil-military AI liaison cell</b> to systematically scout dual-use technologies</li> </ul>	<p><b>Budget &amp; Procurement</b> Ring-fenced allocation + agile contracting</p> <ul style="list-style-type: none"> <li>Ring-fence 1% of capital defence budget for AI software, R&amp;D, and computing — a 5x increase</li> <li>Adopt <b>Agile Procurement</b> models decoupled from 3–5 year hardware cycles</li> <li>Accelerate <b>startup engagement</b> — contract timelines in months, not years</li> <li>Protect <b>multi-year AI funding</b> from annual budget-cut cycles</li> </ul>	
<p><b>\$46M</b> CURRENT ANNUAL MILITARY AI SPENDING</p>	<p><b>~3%</b> OF ESTIMATED CHINESE PLA AI SPENDING</p>	<p><b>₹400Cr</b> DEDICATED MILITARY AI ALLOCATION</p>	<p><b>5x</b> PROPOSED INCREASE OVER CURRENT SPENDING</p>

## Conclusion

The era of treating AI as a secondary 'force multiplier' is rapidly evolving; it now constitutes the primary substrate on which all future military power will be built, fundamentally transforming the character of warfare and the nature of strategic competition. India stands at a critical juncture, where choices made in the coming years will determine its position in the emerging international order. While India faces severe resource asymmetry relative to great powers whose defense AI budgets dwarf Indian spending, it possesses a unique advantage: the ETAI Framework, which provides a technically informed, ethical roadmap that many other nations currently lack.

However, technical frameworks and ethical commitments are insufficient without a corresponding diplomatic offensive that translates principles into international practice. India must play a larger, more assertive role in international AI governance, leveraging platforms like the 2026 AI Impact Summit and the ongoing REAIM process to shape emerging norms. For too long, global rules for emerging technologies have been written by a small group of nations to serve their interests, often to the detriment of the Global South. The January 2026 US directive removing usage policy constraints on military AI, combined with China's military-civil fusion model, threatens to create a race to the bottom where competitive pressures override safety considerations and ethical guardrails. Middle powers and developing nations cannot simply accept this dynamic but must actively shape an alternative path.

By championing Common Good Governance and meaningful human-control principles articulated in the ETAI Framework, India can lead a global coalition to ensure that AI remains a tool for stability rather than a trigger for unintended escalation. Particular attention must be paid to ensuring that developing nations are not barred from high-end AI research under security pretexts designed primarily to protect incumbents' market share and strategic advantages. Technology should enable, not entrench, inequality.

Domestically, the path forward requires a cultural shift within the Indian defense establishment: a willingness to trust algorithms while maintaining appropriate skepticism; an embrace of failure as a necessary component of the AI-First learning cycle; and a prioritization of software as a strategic asset, warranting investment comparable to that for traditional hardware platforms. Military leadership must recognize that an officer who develops a breakthrough algorithm provides value equivalent to that of an officer who commands a successful operation, thereby requiring updated promotion criteria and career pathways. Defense procurement must accelerate without sacrificing oversight, balancing urgency with accountability. Research institutions must receive sustained funding enabling multi-year projects rather than annual uncertainty. Most fundamentally, India must develop confidence that its unique approach, combining technological ambition with ethical restraint, is a source of strength rather than weakness and offers a model for responsible great-power behavior in the AI age.

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