



We Enable the Innovators

Mentoring & investing in the next wave of innovative ideas

Avinya's take on defense tech opportunity

THE OPPORTUNITY:



Global Market for Defence

\$2.4 trillion

In Total



India's Plan to Invest

\$18.3 billion

Annually Until 2030

India is charting a new course to enhance its defense and offensive capabilities through the Make in India initiative. The objective is to diminish reliance on imports of defense equipment and technology while boosting defense exports to capture a share of the \$2.4 trillion global defense market. Historically, India was the largest importer in the defense sector until approximately nine years ago.

Richard McCallum, Vice Chair of UKIBC India, remarked, "It is a paradox that while India has one of the largest defense industrial complexes in the developing world, it continues to be overwhelmingly dependent on imports for arms and equipment."

However, times are changing. India's defense manufacturing sector is evolving, with established and emerging players preparing to capitalize on anticipated lucrative opportunities in the defense and aerospace industries. According to senior officials, this shift is attributed to India's plan to invest an average of INR 1.5 lakh crore (\$18.3 billion) annually until 2030 to modernize its military capabilities.

EXPORT OPPORTUNITY:



India's Defence Exports

78% Surge

Q1 of FY 2024-2025



India's Defence Exports

₹6,915 Crore

Q1 of FY 2024-2025

The focus is not only on reducing imports of defense equipment but also on increasing India's exports by relaxing export regulations, promoting public-private partnerships, and inviting global delegations from emerging countries to view India as a defense supplier. India now supplies defense products to over 90 nations—a growth spurred by global conflicts such as the Russia-Ukraine war and the Israel-Hamas conflict. These geopolitical tensions have prompted many nations to bolster their military capabilities, positioning India as a key supplier. In Q1 of FY 2024-2025 alone, India's defense exports surged by 78%, reaching ₹6,915 crore compared to ₹3,885 crore during the same period last year.

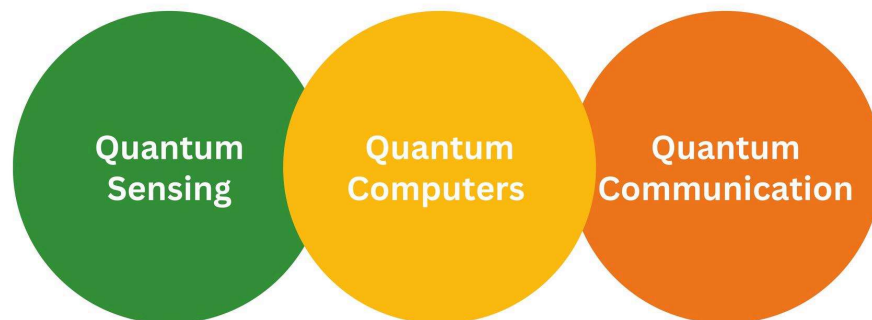
EMERGING SUB SECTORS:

Artificial Intelligence (AI): The extensive application of AI-based technology in the defense sector covers many functions and possibilities such as training, surveillance, logistics, cybersecurity, UAV, advanced military weaponry like LAWS, autonomous combat vehicles & robots. These applications ensure a robust footing in modern warfare strategies.

DRDO's Centre for Artificial Intelligence and Robotics (CAIR) is dedicated to researching and developing AI systems for decision-making, reconnaissance, and surveillance.

Quantum Technologies

There are three main uses cases of quantum computing in defence



India has launched a National Mission on Quantum Technologies and Applications (NM-QTA) with an initial corpus of US\$1.1bn to develop quantum communication, computing and cryptography.

Cognitive Technologies:

Cognitive technologies can automate tasks from the routine (robotic process automation) to the complex and abstract (machine learning and AI). They can detect subtle patterns in data and make predictions about what might be coming down the line. Cognitive technology is bringing automation to processes previously thought un-automatable, such as reviewing contracts, classifying images or detecting inappropriate content.

DRDO is researching cognitive technologies to improve human machine interactions in complex defense systems, enhancing situational awareness and decision-making capabilities.

Stealth and Anti-Stealth Technologies:

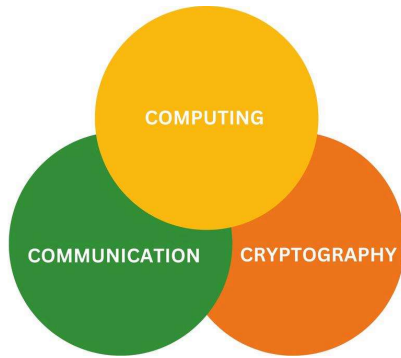
Stealth technology is a military technology that makes vehicles or missiles nearly invisible to enemy radar or other electronic detection. anti-stealth technology, also known as Counter-Very Low Observable (CVLO) techniques, are methods that can overcome the effects of stealth design.

India is working on projects like the Advanced Medium Combat Aircraft (AMCA), incorporating stealth technology to evade enemy radar detection. Additionally, the DRDO is developing anti-stealth technology to counter adversaries' stealth capabilities.

Robotics:

Some of the uses of Robotics in defense include; Unmanned aerial vehicles, ground based robots and even autonomous underwater robots. These technologies also reduce risks associated with involvement of human beings in unnecessarily hostile territories to protect the soldiers involved.

DRDO's Centre for Robotics and Unmanned Systems (CRUS) focuses on the development of ground and aerial robotic systems for various applications, including surveillance, search and rescue, and explosive ordnance disposal.



India has launched a National Mission on Quantum Technologies & Applications (NM-QTA) with an initial corpus of US\$1.1bn

SUCCESS STORIES IN THE SECTOR:



Founded in **2007**
Bombay

Total Funding **\$53.8M**
in 15 rounds

Listed on NSE with **\$339M**
Market Capitalization

ideaForge:

Founded in 2007 by IIT Bombay alumnus, Ankit Mehta, Ashish Bhat, Rahul Singh and Vipul Joshi, ideaForge specialises in the design and development of unmanned aerial vehicles (UAVs), commonly known as drones. With a market share of around 50% during the fiscal year 2022, IdeaForge is the foremost and pre-eminent market leader in the Indian UAV market. The company’s products include the SWITCH, Q4i, NETRA V4+, NINJA, RYNO and Q6 UAVs, which are used by the Indian Armed Forces, state police departments, disaster management forces, forest departments, government and private contractors and enterprise sectors, among others. The company was listed on stock exchange on 7th July 2023 and today has a market capitalisation of INR 3000 crores.



Founded in **2004**
at Bangalore

Total Funding **\$5.5M**
in 5 rounds

Acquired for **\$48.7M**
By Adani Defence

Alpha design technologies:

Alpha Design Technologies is a Bangalore-based defense electronics manufacturer that was founded in 2004. The company specialises in researching and developing, manufacturing, assembling, testing, qualifying, integrating, and installing defense electronics, avionics, and space satellite systems. It was acquired by Adani Defense on 20th April 2019 for INR 400 Cr (\$48.7 Mn). Its annual revenue stood at \$87.7 Mn

in 2021, displaying a growth of 46% over its last year's revenue of \$60.2 Mn. Its product portfolio consists of a range of command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) technologies, such as smart switchboards that can be mounted on vehicles for local communication, receivers that use radar, up and down converters that operate in the c-band, compact jammers, and target acquisition systems that use laser and thermal technology and are equipped with night vision capabilities.

GOVERNMENT SUPPORT:

In the FY25 Union Budget, ₹6.21 lakh crore (12.9% of the total budget) was allocated to the defense sector. The Make in India initiative encourages indigenous production of defense equipment through tax incentives and favorable policies. To further promote innovation, ₹518 crore was allocated to the iDEX scheme, supporting technological solutions from startups, MSMEs, and innovators.

The initiative has introduced several schemes and programs to support defense startups:

Defense India Startup Challenge (DISC): A program aimed at identifying and supporting startups with disruptive defense technologies. In February 2023, the Defense Minister launched DISC 9 focusing on cybersecurity with 28 problem statements.

Defense Innovation Organization (DIO): iDEX is funded and managed by DIO formed as a not-for-profit company under Section 8 of the Companies Act 2013 to promote innovation in the defense sector.

What Does Avinya Look for when evaluating a defense tech startup?

- The team's technical capabilities and prior experience selling to defense forces.
- The intellectual property (IP) developed and its use cases for defense forces.
- The size of the addressable market.
- The competitive landscape for the product or technology.
- Relationships with larger system integrators such as PSUs like BEL, BDL, HAL and large private sector companies like L&T Defense and Tata Advanced Systems.



FROM THE MANAGING PARTNER'S DESK

In our view, while the government is effectively supporting startups through iDEX programs to tackle challenging projects and develop innovative technologies, more needs to be done for further support of defense startups. Given the substantial tailwinds in this sector, early investors in defense startups can anticipate significant returns over time but will need patience as developments unfold over the next five years.