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INDIAN AEROSPACE & DEFENCE: ENTRY & GROWTH PLAYBOOK



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DISCLAIMER



This report, Indian Aerospace & Defence: Entry & Growth Playbook, has been compiled as part of continued knowledge-sharing efforts in support of the Indian aerospace and defence industry ecosystem. The contents are intended for informational purposes only and aim to benefit a broad spectrum of industry stakeholders, partners, and decision-makers.

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PREFACE



This Knowledge Paper aims to provide a comprehensive overview of India's Military, Civil Aerospace, Maintenance, Repair & Overhaul (MRO), and Space industries, along with their legal and regulatory frameworks. It seeks to familiarize prospective clients, especially those from abroad, with the nuances of India's fiscal, trade, and compliance regimes. Special emphasis is placed on the unique offerings and incentives extended by the state of Tamil Nadu in these sectors.

Furthermore, the paper endeavors to guide foreign investors and companies in developing a tailored business development toolkit and well-structured action pathways. These range from short-term market scans aimed at opportunity identification to mid-term facility setups and long-term strategies involving scaling localization, exports, and integrating into India's research and development ecosystem.

By presenting a detailed yet accessible exposition of the Indian aerospace and defence landscape, combined with practical guidelines for market entry and operational resilience, this document facilitates informed decision-making and strategic planning for successful engagement in India's vibrant aerospace and defence sectors.

EXECUTIVE SUMMARY

India stands at the forefront of a transformative aerospace and defence (A&D) revolution, presenting unprecedented opportunities for global stakeholders. The nation's A&D sector is experiencing remarkable momentum, driven by rising defence budgets, ambitious localization policies under Atmanirbhar Bharat, and exponential growth across civil aviation and space domains.

Defence Sector: Modernization at Scale

India's estimated defence budget for the 2026-27 fiscal year stands at an all-time high of ₹7.85 lakh crore, marking a 15.19% increase from the previous year's budget estimates. A record ₹2.19 lakh crore has been earmarked for capital acquisition and modernization, including next-generation fighter aircraft, drones, ships, and smart weapons, with ₹1.39 lakh crore allocated for procurement from domestic defence industries. The Atmanirbhar Bharat (Self-Reliant India) initiative has fundamentally reshaped India's defence landscape. Through expanded Positive Indigenisation Lists covering over 5,500 items, scaling of the Uttar Pradesh and Tamil Nadu Defence Industrial Corridors, rising private-sector and startup participation via iDEX and DAP reforms, and continued liberalised FDI norms allowing up to 74% automatic-route investment. India's defence exports touched a historic record high of ₹38,424 crore ($4.1 billion) in the financial year 2025-26, marking a 62.66% surge from the previous year. The government targets ₹50,000 crore ($5.24 billion) annually in the coming years.

Civil Aviation: Soaring to New Heights

India has emerged as the world's third-largest domestic aviation market, supported by rapid infrastructure expansion, rising passenger traffic, and strong policy reforms. The number of operational airports increased from 74 in 2014 to 165 in June 2026, with the government targeting 350–400 airports by 2047 under its long-term aviation vision. Under the Regional Connectivity Scheme (RCS-UDAN), over 1.56 crore passengers have travelled across more than 3.23 lakh flights, supported by approximately ₹4,300 crore in Viability Gap Funding (VGF) to improve regional air connectivity. India's aviation growth is further reinforced by the Bharatiya Vayuyan Adhiniyam, 2024, which modernizes the country's aviation regulatory framework in line with global standards while promoting indigenous aerospace manufacturing under the Make in India and Atmanirbhar Bharat initiatives. Simultaneously, major Indian airlines have placed aircraft orders exceeding 1,700 aircraft, reflecting strong long-term market confidence and creating significant opportunities across aircraft manufacturing, component ecosystems, and MRO services. India's MRO market is projected to grow from approximately US$1.7 billion in 2021 to nearly US$4 billion by 2031, at a CAGR of around 8.9%, positioning the country as an emerging global aviation maintenance hub.

Space Economy: The Final Frontier

India's space sector represents one of the most dynamic growth stories globally. Valued at $8.4 billion in 2022, the space economy is projected to reach $44 billion by 2033, capturing 8% of the global space market. This fivefold growth trajectory is powered by the Indian National Space Promotion and Authorization Centre (IN-SPACe), which has streamlined private sector participation in space activities.

The sector has witnessed remarkable transformation, with the number of Indian space startups having increased from fewer than 10 in 2019 to over 250 by 2026 since policy reforms, attracting significant foreign investment. Satellite communication alone is expected to contribute $14.8 billion by 2033, while India's cost-effective launch capabilities continue attracting international customers.

INTRODUCTION

India's aerospace and defence ecosystem is undergoing a significant transformation, driven by policy reforms, technological advancement, geopolitical realignments, and increasing private-sector participation. Liberalised Foreign Direct Investment (FDI) norms permitting up to 74% automatic-route investment, dedicated defence industrial corridors in Uttar Pradesh and Tamil Nadu, and continued procurement support for MSMEs and startups have strengthened domestic manufacturing capabilities and diversified India's aerospace and defence supply chain. Simultaneously, the government's strong emphasis on indigenisation through Positive Indigenisation Lists, Defence Acquisition Procedure (DAP) reforms, and initiatives such as iDEX (Innovations for Defence Excellence) reflects a structural shift towards long-term self-reliance and innovation-led growth.

India's technological capabilities have been reinforced by landmark achievements from Indian Space Research Organisation, including the successful Chandrayaan-3 lunar landing mission, Aditya-L1 solar mission, progress toward the Gaganyaan human spaceflight programme, and increasing commercialization of the space sector under the Indian Space Policy 2023. The growing role of IN-SPACe and the liberalised Space FDI policy introduced in 2024 have accelerated private participation, with more than 250 space startups now active across satellite manufacturing, launch systems, spacetech software, propulsion, and downstream applications. In parallel, the Department of Atomic Energy's collaborations with industry and India's continued advancements in missile systems, aerospace engineering, and defence electronics underscore the country's expanding technological depth.

India's emergence as a credible global defence and aerospace partner has also been reinforced through successful exports of systems such as the BRAHMOS supersonic cruise missile and Akash air defence system, alongside ongoing upgrades and co-development initiatives involving platforms such as the Sukhoi-30 MKI. The sector is increasingly transitioning from licensed manufacturing toward indigenous design, co-development, system integration, and export-oriented production. Foreign OEMs are no longer viewed merely as suppliers, but as strategic collaborators in technology transfer, R&D, advanced manufacturing, and global supply-chain integration.

India has now firmly established itself as the world's third-largest domestic aviation market, supported by strong passenger traffic growth, airport infrastructure expansion, and large commercial aircraft orders exceeding 1,700 aircraft by Indian carriers. The number of operational airports has increased from 74 in 2014 to 165 in June 2026, with the government targeting 350–400 airports by 2047. Simultaneously, India's defence production reached approximately ₹1.5 lakh crore in FY 2024–25, while defence exports touched a record ₹38,424 crore in FY 2025-26, reflecting growing indigenous capability and export competitiveness. Government policies such as Production Linked Incentive (PLI) schemes, the Bharatiya Vayuyan Adhiniyam, 2024, National Airworthiness and Certification reforms, and enhanced domestic procurement mandates continue to strengthen the aerospace manufacturing and MRO ecosystem.

Geopolitical developments since 2022, including supply-chain diversification, Indo-Pacific strategic realignments, increasing defence cooperation under frameworks such as QUAD and I2U2, and evolving global security dynamics, have further accelerated India's aerospace and defence ambitions. Global aerospace and defence leaders, including Airbus, Boeing, Lockheed Martin, Dassault Aviation, Safran, and GE Aerospace, continue expanding manufacturing, sourcing, engineering, and R&D partnerships in India. These collaborations are enabling Indian public-sector enterprises, large private conglomerates, startups, and MSMEs to increasingly integrate into global aerospace and defence value chains, positioning India as an emerging global hub for advanced manufacturing, defence exports, space technologies, and aerospace innovation.

INDIA AEROSPACE & DEFENCE MACRO & DEMAND OUTLOOK

INDIA AEROSPACE & DEFENCE MACRO & DEMAND OUTLOOK

India's aerospace and defence (A&D) sector remains one of the most attractive markets globally, driven by government reforms, indigenous production focus, and strong demand projections across both defence and civil aviation. With the world's third-largest armed forces, India has steadily transitioned from being one of the largest importers of defence equipment to emerging as a key exporter and global supply chain player. Defence initiatives under Atmanirbhar Bharat Abhiyan and DPEPP 2020 have enhanced self-reliance and boosted exports. By FY 2024–25, India's defence production value reached a record of approximately ₹1.51 lakh crore (USD 18 billion), while defence exports touched an all-time high of ₹38,424 crore (USD 4.02 billion) in FY 2025-26. The government has further raised its long-term targets to ₹3 lakh crore (USD 31.45 billion) in defence production and ₹50,000 crore (USD 5.24 billion) in defence exports by 2029

On the aerospace front, major indigenous programs such as the C-295 transport aircraft programme under the Airbus–Tata Advanced Systems partnership, HAL Tejas Mk-1A, the AMCA fifth-generation fighter programme, and the HAL Prachand continue to strengthen India's indigenous aerospace capabilities. Recent progress includes the operationalisation of India's first private-sector military aircraft assembly line for the C-295 programme and increasing private-sector participation in advanced aerospace manufacturing. Simultaneously, global OEMs such as Boeing, Lockheed Martin, Dassault Aviation, Airbus, Safran, and GE Aerospace have expanded manufacturing, sourcing, engineering, and MRO partnerships in India, further integrating the country into global aerospace supply chains.

DEFENCE BUDGET

India's defence budget continues to rise in response to modernization priorities, border security requirements, and evolving geopolitical challenges. India's estimated defence budget for the 2026-27 fiscal year stands at an all-time high of ₹7.85 lakh crore, marking a 15.19% increase from the previous year's Budget Estimates.

- Capital outlay for modernization increased to around ₹2.19 lakh crore (USD 26 billion), with a strong focus on indigenous procurement of aircraft, drones, missile systems, naval platforms, and advanced defence technologies.
- Revenue expenditure, including salaries, pensions, and operational readiness, continues to constitute a significant share of the budget due to India's large armed forces structure.
- A substantial portion of modernization spending remains committed toward existing contracts and long-term procurement programmes, while the Army continues to receive the largest overall allocation and the Air Force and Navy account for a major share of capital modernization expenditure.

DEFENCE BUDGET TRENDS (2017–2026)

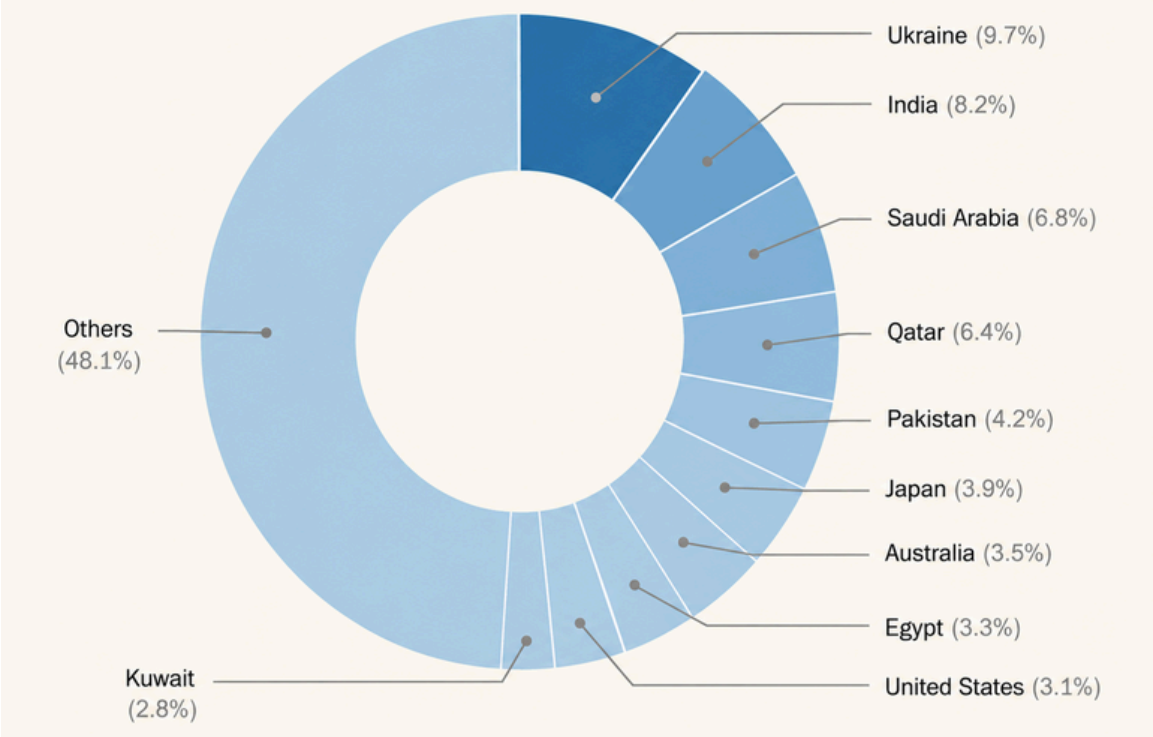
Financial Year	Total Allocation (₹ Cr)	Approx. USD (Bn)
2017-18	3,59,000	37.6
2018-19	4,04,365	42.3
2019-20	4,48,820	47
2020-21	4,71,378	49.4
2021-22	4,78,196	50.1
2022-23	5,25,166	55
2023-24	5,93,538	62.2
2024-25	6,21,940	65.1
2025-26	6,81,210	71.3
2026-27*	7,85,000*	82.2*

Note: *USD values are approximate and calculated using a constant exchange rate of ₹95.5 per US dollar (June 2026 reference rate) for ease of comparison across all years. These figures are intended for comparative purposes only and do not reflect the historical exchange rates prevailing during the respective financial years.*
FY 2026–27 figures represent Budget Estimates (BE).

DEPENDANCE ON IMPORTS

Operation Sindoor has underscored the urgent need to boost India's defence spending from the current 1.9 percent of gross domestic product to at least 2.5 percent. While India's defence capital outlay has increased significantly from approximately ₹71,675 crore in FY 2015–16 to nearly ₹1.92 lakh crore in FY 2025–26, a substantial portion continues to be allocated toward existing procurement commitments and critical imports. Although the share of capital expenditure within the total defence budget has improved over the years, India continues to depend on foreign suppliers for several advanced platforms, propulsion systems, sensors, avionics, and strategic technologies. According to recent Stockholm International Peace Research Institute (SIPRI) assessments for 2020–2024, India remains among the world's largest arms importers despite growing indigenisation efforts. Russia continues to be a major defence supplier to India, although dependence has gradually diversified toward countries such as France, the United States, and Israel.

Major defence imports in recent years have included Dassault Rafale fighter aircraft, Boeing C-17 Globemaster III and Lockheed Martin C-130J Super Hercules transport aircraft, Boeing AH-64 Apache and Boeing CH-47 Chinook helicopters, Scorpène-class submarines, and S-400 Triumph air defence systems. India has also procured advanced missile systems, artillery platforms, UAVs, and maritime surveillance technologies from countries including the United States, France, Israel, and Russia. President Emmanuel Macron made an official visit to India from February 17–19, 2026. India and France continued to deepen defence cooperation in 2026, including discussions on expanding Rafale fleet capabilities and broader aerospace collaboration initiatives.
India and Israel further strengthened cooperation in aerospace, surveillance, UAV, missile, and aircraft-support technologies, supporting capability development across multiple defence domains. More recently, acquisitions and approvals involving MQ-9B armed drones, advanced jet engines, naval systems, and next-generation aerospace technologies reflect India's growing focus on network-centric warfare, surveillance, and strategic deterrence. Despite significant progress in indigenous defence manufacturing, India continues to rely on imported aero engines, advanced avionics, radar systems, semiconductor-based electronics, and propulsion technologies for several domestic platforms, including the HAL Tejas Mk-1A, highlighting the strategic importance of strengthening indigenous capabilities in critical defence technologies and aerospace systems.



THE CASE FOR DEFENCE INDIGENISATION

An indigenous defence industry remains a strategic imperative for India given its evolving security environment and long-term technological ambitions. Under the Make in India and Atmanirbhar Bharat initiatives, the government has accelerated indigenisation through Positive Indigenisation Lists, Defence Industrial Corridors, liberalised FDI norms, iDEX, and increased participation of private companies, startups, and MSMEs. India's defence ecosystem has consequently evolved from being heavily import-dependent toward greater domestic manufacturing, co-development, and export-oriented production.

While modernization requirements continue to necessitate selective imports of advanced platforms and technologies, India is simultaneously strengthening indigenous capabilities across aerospace, defence electronics, propulsion systems, drones, AI-enabled warfare, and advanced manufacturing. Defence production reached a record of approximately ₹1.51 lakh crore in FY 2024–25, while defence exports touched an all-time high of ₹38,424 crore in 2025-26, reflecting growing domestic capability and global competitiveness. Domestic manufacturing now accounts for nearly 65% of defence procurement requirements, significantly reducing import dependence.

India's defence industrial base today comprises 16 DPSUs, over 430 licensed companies, and nearly 16,000 MSMEs, supported by increasing investments from private industry and global OEMs. Dedicated Defence Industrial Corridors in Uttar Pradesh and Tamil Nadu, along with state-level aerospace and defence policies, are further strengthening India's emergence as a global defence manufacturing and aerospace hub, with long-term targets of ₹3 lakh crore in defence production and ₹50,000 crore in defence exports by 2029.



DEFENCE EXPORTS

Defence exports have grown spectacularly, from ₹4,312 crore in the 2004-14 decade to ₹88,319 crore in the 2014-24 decade, highlighting India's expanding role in the global defense sector. Defence exports reached a record ₹38,424 crore in FY 2025–26, compared to ₹23,622 crore in FY 2024–25. In this, Defence Public Sector Undertakings (DPSUs) and the private sector have contributed 54.84% and 45.16%, respectively. This growth was driven by increasing global demand for Indian defence systems and equipment. India's export portfolio today includes missile systems, radars, artillery systems, patrol vessels, Dornier (Do-228) aircraft, helicopters, lightweight torpedoes, bulletproof jackets, electronic warfare systems, UAVs, and aerospace components, and being exported to more than 80 countries, highlighting the country's growing manufacturing capabilities, improved quality standards, and rising integration into global defence supply chains.

DEFENCE OFFSETS: AN UNDETERMINED VARIABLE?

Defence Acquisition Procedure (DAP) 2020 was aimed, in line with its preceding versions, at binding foreign vendors to plough back a certain percentage of the overall contract value into the buyer country on terms and conditions stipulated by the latter. Earlier offset frameworks required foreign defence vendors to reinvest a portion of contract value into India's defence manufacturing, aerospace, security, and R&D ecosystem, supporting technology transfer and supply-chain integration. However, DAP 2020 substantially narrowed the applicability of offsets, limiting them mainly to competitive procurement contracts while exempting several government-to-government agreements, single-vendor deals, and Foreign Military Sales (FMS)-type acquisitions. The Ministry of Defence justified this shift on the grounds that offset obligations often increased procurement costs and resulted in uneven technology absorption outcomes. Nevertheless, the reduced scope of offsets has generated concerns regarding the long-term impact on indigenous capability development, especially for Indian private-sector manufacturers, MSMEs, and suppliers seeking integration into global aerospace and defence supply chains.

At the same time, India's broader indigenisation strategy has increasingly shifted from traditional offset-driven procurement toward deeper co-development, joint ventures, licensed production, and manufacturing partnerships under the Make in India and Atmanirbhar Bharat initiatives. Recent collaborations involving global OEMs and Indian industry across aerospace manufacturing, engines, electronics, missiles, and MRO ecosystems reflect this transition toward long-term industrial partnerships rather than purely offset-linked investments. While challenges remain in achieving critical technology transfer and advanced domestic capability creation, India's defence ecosystem is gradually evolving toward a more integrated and globally competitive manufacturing model.

MAJOR DEFENCE HARDWARE ACQUISITIONS IN WORK

- **Armoured Warfare:** Approval for procurement of nearly 1,770 Future Ready Combat Vehicles (FRCVs) to replace the Indian Army's aging T-72 fleet, alongside modernization of infantry combat and battlefield mobility systems.
- **Naval Platforms:** Plans for the construction of additional next-generation stealth frigates under Project-17B/17A follow-on programmes, Project-75(I) submarines, and continued expansion of indigenous aircraft carrier and unmanned naval capabilities.
- **Aerial Systems:** Acquisition of 26 Dassault Rafale M fighters for INS Vikrant, additional Airborne Early Warning & Control (AEW&C) systems, mid-air refuellers, and accelerated induction of 83 HAL Tejas Mk-1A aircraft for the Indian Air Force.
- **Artillery:** Procurement of over 300 indigenously developed artillery guns, long-range rocket systems, BRAHMOS missile systems, and next-generation precision-strike capabilities under ongoing modernization plans.

- **Air Defence & EW:** Expansion of integrated air defence systems, electronic warfare platforms, advanced fire-control radars, indigenous missile defence systems, and deployment of S-400 Triumph air defence units.
- **Drones & Munitions:** Procurement of 450+ indigenous loitering munitions, MQ-9B armed drones, swarm drones, counter-drone systems, and AI-enabled autonomous surveillance platforms to strengthen precision strike and battlefield intelligence capabilities.

MARKET SIZE & GROWTH DRIVERS

In FY 2025–26, India's aerospace and defence sector's total annual production value has officially surpassed the ₹2 lakh crore milestone (about USD 24–26 billion), driven by rising indigenous manufacturing, defence modernization, export growth, and increasing private-sector participation. Over the next decade, planned capital acquisitions and modernization initiatives across the Army, Navy, Air Force, aerospace, cyber, and space domains are expected to exceed ₹15–20 lakh crore (about USD 180–240 billion).

Growth Drivers:

- Government Policy Support: DAP 2020 reforms, Positive Indigenisation Lists covering 5,500+ items, corporatisation of OFBs, iDEX initiatives, liberalised FDI norms up to 74% on the automatic route, and PLI support for drones and aerospace manufacturing.
- Infrastructure Corridors: Defence Industrial Corridors in Uttar Pradesh and Tamil Nadu.
- Geopolitical Push: Indo-Pacific security priorities, border tensions, supply-chain diversification, and strategic partnerships such as QUAD and I2U2.
- Export Targets & Momentum: Defence exports reached a record ₹38,424 crore in FY 2025–26, with growing exports of BRAHMOS missile systems, Akash air defence systems, artillery platforms, radars, UAVs, patrol vessels, aerospace components, and electronic warfare systems to nearly 80 countries.
- Technology Focus: Increasing investments in AI-enabled warfare, cybersecurity, drones, autonomous systems, space defence, electronic warfare, semiconductors, directed-energy weapons, and C4ISR technologies are emerging as key strategic priorities.
- Private Sector Participation: Major Indian firms and global OEMs, including Airbus, Boeing, Lockheed Martin, Dassault Aviation, Safran, and GE Aerospace, are expanding sourcing, manufacturing, engineering, and MRO partnerships in India, strengthening integration into global aerospace and defence supply chains.

CIVIL AVIATION & SPACE ECONOMY SNAPSHOT

India's civil aviation sector has consolidated its position as the third-largest domestic passenger market globally. With rising incomes, urbanization, and infrastructure expansion, passenger traffic is expected to grow at a CAGR of 8–10% till 2030. India may require over 2,200 new aircraft by 2040 (about USD 320 billion opportunity). The number of operational airports has increased from 74 in 2014 to 165 in June 2026, with the government targeting 350–400 airports by 2047 under its long-term aviation vision. Air India's 470-aircraft order with Airbus and Boeing in 2023, IndiGo's record orders with Airbus, and rapid airport expansions demonstrate market confidence. The country is also becoming a global MRO and pilot training hub, supported by policy reforms such as the Bharatiya Vayuyan Adhiniyam, 2024, increasing OEM partnerships, and growing domestic aerospace capabilities.

On the space front, India continues to witness rapid expansion driven by policy liberalization, private-sector participation, and rising commercial opportunities. Landmark achievements by the Indian Space Research Organisation, including Chandrayaan-3, Aditya-L1, and ongoing preparations for the Gaganyaan human spaceflight mission, have significantly enhanced India's global space profile. The Indian Space Policy 2023, operationalisation of IN-SPACe, and the liberalised Space FDI policy introduced in 2024 have accelerated private participation, with companies such as Skyroot Aerospace, Agnikul Cosmos, Pixxel, and Dhruva Space driving innovation across launch systems, satellite manufacturing, and space-based applications.

India's space economy, valued at approximately USD 8.4 billion in 2023, is projected to reach nearly USD 44 billion by 2033, supported by growth in satellite launches, commercial space technologies, downstream applications, defence space systems, navigation, Earth observation, and secure communications.

MARKET ATTRACTIVENESS

The Ministry of Defence has signed about 193 contracts worth more than ₹2,09,000 crore (approximately USD 25.8 billion) during the financial year 2024–25 alone. Of these, 177 contracts were awarded to the domestic aerospace and defence industry, marking a significant shift towards indigenous manufacturing and self-reliance under the "Make in India" and "Atmanirbhar Bharat" initiatives. Favorable government policy is the one that promotes self-reliance, indigenization, and technology upgradation. The policies also aim at achieving economies of scale, including the development of capabilities, and for exports in the Defence sector. India's extensive modernization plans are with an increased focus on homeland security and growing attractiveness as a Defence sourcing hub.

- Defence production value reached ₹1.51 lakh crore in 2024-25, an 18% growth over the previous year, driven by domestic manufacturing and the "Make in India" initiative.
- Equipment procured includes 156 Light Combat Helicopters (LCHs), 180 HAL Tejas Mk-1A aircraft (83 ordered 2021 + 97 contracted Sep 2025), 307 ATAGS artillery systems, 26 Dassault Rafale M fighters, naval vessels, radars, simulators, missiles, bulletproof jackets, and more, showing a broad range similar to the earlier period but with greater volume and value.
- The newly released Defence Procurement Manual 2025 supports faster, simpler, and more industry-friendly procurement, emphasizing self-reliance and wider inclusion of private players, startups, and MSMEs.
- The private sector share in defence production reportedly hit a record 23% in FY 2024-25, with strong policy encouragement and budgetary allocations favoring domestic procurement.
- In September 2025, the Ministry of Defence signed a ₹62,370 crore contract for 97 additional Tejas Mk-1A fighters, taking total Tejas orders to 180 aircraft and significantly strengthening India's indigenous fighter manufacturing pipeline.

The Indian government, as part of the Make in India initiative, has long-term targets of ₹3 lakh crore (USD 31.45 billion) in defence production and ₹50,000 crore (USD 5.24 billion) in defence exports by 2029. This ambitious opportunity reflects both domestic production growth and expanding export ambitions. Furthermore, over the next 10 years, the acquisition plans of the three armed forces are expected to drive capital asset procurement worth ₹15 trillion (approximately USD 180-240 billion), underscoring a substantial and sustained demand for defence equipment in India. These figures collectively illustrate India's strategic push for self-reliance, increased domestic manufacturing, and enhanced global competitiveness in defence.



INDIAN SPACE INDUSTRY

India is situated near equator and has a geography advantage in sending rockets to space using less energy in comparison with China, Japan and Europe who launch their space craft from South American country. Since its first modest step into space by lofting a sounding rocket from the Thumba Equatorial Rocket Launching Station (TERLS) in November 1963, the Indian Space Research Organization (ISRO) has come a long way, becoming the first Asian nation to reach Mars.During this journey, India recorded benchmark accomplishments to establish its prowess by showcasing unmatched frugal approach, consistency, safety track record, and efficiency by pursuing self-reliance over this journey. True to the words of its founder an eminent Indian scientist, ISRO ably spearheaded India's ambitions in Space immensely benefiting common Indian citizens: in the process establishing an Indian ecosystem for the Space Industry.

Early development

Indian Space Research Organisation (ISRO) was established by the Government of India in 1969, taking over the functions of the earlier INCOSPAR (Indian National Committee for Space Research).The main player of India's space journey from inception in 1960s through the first thirty years till the 1990s was the Indian Government: ISRO was the main driver and government funding the main source striving under average annual budget around INR 100–200 crores.

In pursuing thirty years from the 1990s thru till 2019, the role of main player was shared between ISRO and Government, with increased support and collaborations with private industries, PSUs and private players acting as major suppliers for all ISROs missions strategically expanding with average annual budget around INR 5,000–10,000 crores.

The global space industry underwent a revival in the e first two decades of the 21st Century : the year 2000 thru 2020. Space was no longer the exclusive domain of Governments, and it was set to be driven by synergistic efforts between public and private sector due to its strategic and economic significance. In 2019, while announcing the Space reforms, Indian Prime Minister envisioned India attaining a share of Global Space Commerce befitting the maturity India has attained. Ever since, ISRO and government have continued to retain leadership, secured increased allocation by public investments for space sector growth, with average annual budget around INR 10,000–13,000 crores, increasing emphasis on collaboration with private players. With the emergence of start-ups offering launch services, satellite manufacturing and applications, the future of Indian space industry holds great promise.

Government Initiatives and policy support

As part of the space sector reforms, IN-SPACe was established to facilitate, regulate, and promote private-sector participation across launch services, satellite manufacturing, downstream applications, and commercial space activities. The government also strengthened the role of NewSpace India Limited (NSIL) as the commercial arm responsible for commercialising ISRO technologies and launch services. The Indian Space Policy 2023 and liberalised Space FDI policy introduced in 2024 have further accelerated private investment and foreign participation in the sector.

India's private space ecosystem has witnessed rapid growth, with startups such as Skyroot Aerospace, Agnikul Cosmos, Pixxel, and Dhruva Space emerging across launch vehicles, satellite manufacturing, Earth observation, propulsion systems, and space applications. Industry bodies such as the Indian Space Association (ISpA) continue to support collaboration between government agencies, private industry, startups, investors, and global stakeholders, strengthening India's long-term ambition of becoming a major global space power and commercial space hub.

The promise of Industrial development

The Indian space sector has witnessed remarkable achievements in recent years, such as the successful launch and landing of Chandrayaan-3, the first Indian mission to explore the lunar south pole, Aditya-L1 solar mission, and the ongoing Gaganyaan preparations, and the development of various foreign nations' satellites and applications for socio-economic benefits. These achievements have not only enhanced India's national pride and prestige, but also demonstrated its capabilities and potential in the three distinct sectors of space: the upstream space sector, which involves the design, development and launch of space systems. Several private entrepreneurial firms have come into existence, catering to payload technology development (Astrome): Electrical propulsion for satellites (Bellatrix). Dhruva Space builds satellites, sets up Ground stations, and gets the satellites ready for launch. However, the full potential of space for creating impact on Earth is realized using the downstream space sector, which involves the utilization of space data, products, and services for various end-user applications. This sector has immense scope for innovation, entrepreneurship and value creation, as it can cater to diverse sectors such as agriculture, disaster management, education, health, navigation, communication, entertainment and many more. The Indian space ecosystem, having incubated and nurtured the aforementioned private entrepreneurs, is now mature to assimilate similar talents in the private sector for the downstream space sector.

Thirdly, auxiliary space sector: primarily referring to activities, products, and services derived from space technology benefiting other sectors like Education, manufacturing, Health, training, and space-related insurance business. These are potential value chains waiting to be tapped.

Demand Drivers

The downstream sector can contribute significantly to the national goals of inclusive development, digital transformation, and self-reliance using Commercial satellites on Low Earth Orbits (LEO for short:600 Kms), compared to a GEO stationary satellite at 35000 KMs from the surface of the Earth, which requires much more energy. GEOs continue to be the domain of ISRO.

The future state of Space would mean democratisation of space: private-sector participation and ownership. Decentralised approach with a focus on commercial viability, using innovations in related industries, enhanced private participation, global collaboration, and cross-border partnerships. The Indian Space Policy 2023, operationalisation of IN-SPACe, and liberalised Space FDI norms introduced in 2024 have accelerated private-sector participation and commercialisation.

Despite the above, the Indian space industry represents only 2% of the global market. ISRO has a vision of increasing the sector's global market share to 8% by 2030 and 15% by 2047 to advance India's space activities and compete with other spacefaring nations. While ISRO has the leading share of satellites and launch vehicles, recently the Indian private sector has also made forays into these activities. Several significant developments that have gradually emerged are important to India's future plans for the space sector and the realisation of its vision.

ECOSYSTEM MAP: WHO'S WHO



MINISTRY OF DEFENCE

The Ministry of Defence (MoD) is the apex body responsible for India's national defence, orchestrating policy, coordination, and oversight of the country's armed forces and the vast array of institutions under its umbrella. The MoD is headed by the Defence Minister (Raksha Mantri) and currently encompasses five key departments:

- Department of Defence
- Department of Defence Production (DDP)
- Department of Defence Research and Development Organisation (DDRO)
- Department of Military Affairs
- Department of Ex-Servicemen Welfare

At the heart of India's indigenous defence manufacturing drive is the Department of Defence Production (DDP), established in November 1962. Its core objectives are twofold:

- To create a robust, self-reliant production infrastructure catering to all defence requirements, from weapon systems and platforms to advanced electronics.
- To foster substantive self-reliance in design, development, and production—including boosting domestic innovation, intellectual property creation, and technology absorption.

Policy, Innovation, and Year of Reforms

The MoD has declared 2025 as the "Year of Reforms," reflecting its drive not only to modernise the armed forces but also to overhaul processes, foster jointness (Integrated Theatre Commands), focus on new warfighting domains (cyber, space, AI, robotics), streamline acquisition, and further expand private as well as foreign participation.

Reform priorities for 2025 include:

- Simplified and time-sensitive acquisition protocols.
- Promoting public-private partnerships, improving technology transfer and industrial collaboration.
- Deepening civil-military coordination to break down legacy silos and sharply reduce inefficiencies.
- Elevating India's position as a credible international exporter of defence goods with a vision of achieving ₹3 lakh crore in production and ₹50,000 crore in exports by 2029.
- The Draft Defence Acquisition Procedure (DAP) 2026 introduces an 'Owned by India' category aimed at strengthening indigenous intellectual property ownership and accelerating self-reliance in critical defence technologies.

DEPARTMENT OF DEFENCE PRODUCTION

The Department of Defence Production (DDP) was set up in November 1962 with the objective of developing a comprehensive production infrastructure to produce the weapons/systems/platforms/equipment required for Defence. Over the years, the Department has established wide ranging production facilities for various Defence equipment through Ordnance Factories and Defence Public Sector Undertakings (DPSUs). The products manufactured include arms and ammunition, tanks, armored vehicles, heavy vehicles, fighter aircraft and helicopters, warships, submarines, missiles, electronic equipment, earth moving equipment, special alloys and special purpose steels. With the objective of achieving self- reliance in Defence production, the Ordnance Factories and DPSUs have been continuously modernizing and upgrading their capabilities and widening their product range. Many major products have been developed through in-house research and development initiatives in addition to a number of products and equipment being produced through transfer of technology.

With the objective of achieving self-reliance in Defence production, the Ordnance Factories and DPSUs have been continuously modernizing and upgrading their capabilities and widening their product range.

Key Functions and Institutions

The DDP's extensive remit covers the full value chain of production, procurement, capability development, and partnerships. Over the decades, the Department has:

- Established and modernised a broad landscape of Defence Public Sector Undertakings (DPSUs)—HAL, BEL, BEML, BDL, MIDHANI, GRSE, GSL, MDL, HSL—and corporatised the Ordnance Factories.
- Opened the sector to private players from 2001 onward, licensing hundreds of companies and integrating MSMEs and startups into the supply chain.
- Driven indigenisation through targeted policies like the SRIJAN Portal (for import substitution), Positive Indigenisation Lists (restricting imports for thousands of subsystems/components after defined deadlines), and incentives for local R&D.

The DDP now actively promotes global alliances, ease of doing business for investors, export promotion, and the creation of dual-use technologies. Major achievements include:

- Defence production value rose from ₹46,429 crore (FY 2014–15) to a record ₹1.51 lakh crore (FY 2024–25)—a 224% increase.
- Defence exports soared to ₹38,424 crore (about US$4.11 billion) in FY2025–26, more than 30 times increased since 2013–14, reflecting global confidence in Indian equipment.
- More than 14,000 items (components, LRU, assemblies) have been indigenized, and over 3,000 out of 5,500 items on the Positive Indigenisation Lists are now sourced only from Indian industry as of 2025.

193 contracts—over ₹2.09 lakh crore in value—were signed in FY2024–25, with 92% given to Indian industries.

DRDO AND ALLIED INSTITUTIONS

The Defence Research & Development Organisation (DRDO) is the principal agency responsible for research, innovation, and technology development in India's defence sector. Established in 1958, DRDO operates under the Ministry of Defence and is currently headquartered in New Delhi. Its mandate is to "design, develop, and lead indigenous technology solutions for the Indian armed forces"—ranging from missiles and fighter aircraft to cyberwarfare, radars, composites, biosciences, and AI-driven systems.

The DRDO ecosystem comprises:

- 52+ laboratories and centres across India, grouped into seven technology clusters:
  - Aeronautical Systems (AERO)
  - Armament & Combat Engineering Systems (ACE)
  - Electronics & Communication Systems (ECS)
  - Life Sciences (LS)
  - Microelectronics Devices & Computational Systems (MED & COS)
  - Missiles & Strategic Systems (MSS)
  - Naval Systems & Materials (NS&M)
- Over 7,500 scientists and 13,000 technical staff, making it one of Asia's largest concentrations of applied defence researchers.

Mission and Evolution

DRDO's mission has evolved in recent years towards advanced, dual-use technology and rapid transfer of mature projects to production partners. The "DRDO 2.0" model prioritizes:

- Strategic weapons (long-range missiles, hypersonics, ASAT)
- Disruptive technologies (quantum, photonics, DEWs)
- Unmanned/autonomous systems, AI/ML, sensor fusion, cyberwarfare, and information dominance
- Partnerships with private industry and start-ups for joint development and rapid commercialization

Noteworthy reforms since 2020:

- Fast-tracked procurement and prototype-to-production pipeline for critical systems.
- Open access for private industry under Development-cum-Production Partner (DcPP) and ToT (Transfer of Technology) frameworks.
- Expanding the iDEX initiative for startup-led technology infusion and DRDO Young Scientist Labs, fostering next-gen research.

Major Achievements (2020–2026)

- Missile Systems: Successful operationalization and export licensing of BrahMos (supersonic), Akash (SAM), Agni-5, Astra (BVR AAM), MRSAM (with Israel), Nirbhay cruise missile, and Shaurya hypersonic glide vehicle, also successfully demonstrated Solid-Fuel Ducted Ramjet (SFDR) technology in 2026, a key milestone for future long-range, high-speed indigenous missile systems.
- Fighter and UAV Programs: Tejas Mk1A, Advanced Medium Combat Aircraft (AMCA) stealth fighter prototype, indigenous MALE UAVs ("Rustom II"), swarm UAV concepts achieving operational maturity, and AI-enabled autonomous warfare systems. The AMCA programme entered a competitive development phase in 2026, with multiple industry consortia invited to bid for prototype development, marking a major expansion of private-sector participation in India's fifth-generation fighter programme.
- Naval & Underwater Systems: Advanced torpedoes (Varunastra), AIP systems for submarines, sonar, and anti-submarine solutions.
- Space and Cyber Operations: Dual-use satellites, cyber-range and simulation test beds, and AI-driven battlefield command platforms.
- Innovation & Technology Transfer: Over 300 ToT agreements with Indian industry partners in the last three years; SRIJAN portal for import substitution and unlocking over 14,000 indigenization opportunities.

Budget and Projects

DRDO's budget for FY 2026–27 stands at approximately ₹29,100 crore (about US$3.05 billion), representing nearly 3.7% of the total defence budget. By 2025, DRDO had successfully progressed several flagship programmes from development to user trials, induction, or production, including the Astra beyond-visual-range missile, Akash air defence system, SMART anti-submarine weapon, Pralay tactical missile, TAPAS UAV, indigenous AESA radars, and advanced electronic warfare systems. Simultaneously, hundreds of R&D projects continued across strategic domains such as hypersonics, directed energy weapons, artificial intelligence, quantum technologies, advanced materials, and autonomous systems.

Key stakeholder collaborations:

- Industry: Collaboration network comprising over 2,000 industry partners, including large private enterprises, DPSUs, MSMEs, and defence startups.
- Academia: 15 DRDO Industry–Academia Centres of Excellence (DIA-CoEs) established across premier institutions, supporting research in more than 80 advanced technology domains.
- International: Technology cooperation and research partnerships with over 30 international organisations and partner countries across aerospace, missile systems, electronics, advanced materials, and emerging defence technologies.

Role in the Ecosystem

DRDO is not only the technology backbone of India's military-industrial base but also a "force multiplier" integrating civil, private, academic, and global sources of innovation. The organization's ability to build sustainable capabilities, foster "Atmanirbharta" in critical technologies, and rapidly spin out mature solutions to industry and armed forces underpins the next phase of India's defence and aerospace leadership.



DEFENCE PUBLIC SECTOR UNDERTAKINGS (DPSUS) AND ORDNANCE FACTORIES

India's Defence Public Sector Undertakings (DPSUs) and Ordnance Factories (OFs) form the traditional industrial backbone of the country's defence manufacturing ecosystem. Established under the aegis of the Ministry of Defence's Department of Defence Production (DDP), these entities have played a pivotal role since the post-independence era in ensuring reliable, secure, and sovereign defence production capabilities.
The 41 Ordnance Factories, now corporatized as Indian Ordnance Factories (IOF), trace their origin to the 18th century, evolving into a vast conglomerate producing small arms, artillery, ammunition, armoured vehicles, and specialised equipment. The Defence Public Sector Undertakings (DPSUs) were established from the 1950s onwards as state-owned companies with corporate governance structures to manufacture complex weapon systems, aircraft, electronics, and naval vessels.

Defence Public Sector Undertakings (DPSUs)
There are currently 9 major DPSUs, operating under the direct administrative control of the Department of Defence Production. These include:

1. **Hindustan Aeronautics Limited (HAL):**
   - The flagship aerospace entity, HAL is Asia's largest aerospace company and among the global top 35.
   - Production portfolio includes fighter aircraft (Tejas series, Jaguar upgrades), helicopters (Dhruv, Rudra, Light Combat Helicopter), aero engines, and aerospace components.
   - HAL boasts indigenous design, manufacturing, overhaul, and repair capabilities with over 5,000 aero engines produced to date.
2. **Bharat Electronics Limited (BEL):**
   - Leading defence electronics manufacturer with strong R&D and production capabilities in radar, communication, missile electronics, and electro-optics.
   - Developing missile systems integration complexes and battlefield management systems in partnership with private firms, contributing to a ₹50,000 crore order book.
3. **Bharat Earth Movers Limited (BEML):**
   - Specializes in heavy earthmoving equipment, defence vehicles, and coaches for railways.
   - Supplies trucks, and other military logistics vehicles, playing a key role in armoured mobility.
4. **Bharat Dynamics Limited (BDL):**
   - India's premier missile production enterprise responsible for manufacturing indigenously designed missile systems such as Agni, Prithvi, BrahMos (in JV with Russia).
   - Continues expanding missile production lines, including surface-to-air, cruise, and ballistic missile variants.
   - Recent policy changes have also expanded participation in tactical missile programmes beyond traditional public-sector entities, opening additional opportunities for private-sector missile manufacturing.
5. **Mishra Dhatu Nigam Limited (MIDHANI):**
   - Strategic metallurgy company producing superalloys, titanium, specialty steels, and other critical materials used in defence aircraft, missiles, and naval platforms.
6. **Shipyards:**
   - Mazagon Dock Shipbuilders Limited (MDL), Goa Shipyard Limited (GSL), Garden Reach Shipbuilders & Engineers (GRSE), Hindustan Shipyard Limited (HSL) are vital naval shipbuilding and repair entities responsible for warships, submarines, and patrol vessels.

Indian Ordnance Factories (IOF)

The Indian Ordnance Factories (IOF) was a vast defence manufacturing network comprising 41 factories, 9 training institutes, 3 regional marketing centres, and 4 regional controllers of safety, headquartered in Kolkata. Its product portfolio included small arms, artillery guns, ammunition, combat vehicles, optical devices, parachutes, and specialized alloys. The IOF supplied extensively to the Indian Armed Forces, Central Armed Police Forces, and State Police, playing a critical role in strengthening national security.

In October 2021, the Government of India dissolved the Ordnance Factory Board (OFB) and corporatized its 41 factories into seven specialized Defence Public Sector Undertakings (DPSUs). These are:

- Munitions India Limited (MIL)
- Armoured Vehicles Nigam Limited (AVNL)
- Advanced Weapons and Equipment India Limited (AWEIL)
- Gliders India Limited (GIL)
- India Optel Limited (IOL)
- Troop Comforts Limited (TCL)
- Yantra India Limited (YIL)

Each DPSU has been entrusted with a defined product domain—spanning munitions, armoured vehicles, advanced weapons, troop gear, optical systems, and engineering equipment—ensuring greater specialization, autonomy, and accountability. This landmark restructuring was undertaken under the Atmanirbhar Bharat initiative to enhance efficiency, competitiveness, and self-reliance in India's defence manufacturing ecosystem.

Modernization and Reforms among DPSUs & DRDO

Recognizing challenges from a rapidly evolving defence landscape and private sector emergence, the government undertook multiple reform measures post-2020:

- Corporatization of Ordnance Factories: The erstwhile Ordnance Factory Board was dismantled into seven independent corporate entities, enhancing operational efficiency and market orientation.
- Competitive Bidding: Reduction of preferential treatment for DPSUs by increasing open tenders, ensuring they compete on equal footing with private players.
- Collaborations: DPSUs now actively collaborate with DRDO, private OEMs, and foreign partners under 'Make in India' and Strategic Partnership models.
- Technology Upgradation: Investments in digital manufacturing, AI-enabled production, and advanced quality testing to meet global standards.

Production & Contribution to Defence

- DPSUs and other PSUs accounted for approximately 77% of India's defence production in FY 2024–25 (private sector about 23%). DPSU defence exports reached ₹21,071 crore in FY 2025–26, contributing 54.84% of total defence exports.
- Key programs include fighter aircraft production and maintenance (HAL), missile system manufacturing (BDL & BEL), heavy combat vehicles and earthmoving (BEML), and modern warships and submarines (MDL, GSL, GRSE).
- DPSUs serve as anchors for large infrastructure, export promotion, and strategic R&D partnerships, driving deep supply chain integration and massive employment generation.

PRIVATE SECTOR AND MSMES

Since the early 2000s, India's private sector has gradually emerged as a vital pillar of the aerospace and defence ecosystem, contributing to the twin goals of self-reliance and global competitiveness. The sector, once restricted by licensing and regulatory bottlenecks, now operates in an environment characterised by liberalised FDI norms (up to 74% automatic route in defence), streamlined industrial licensing, and targeted government incentives.

In 2025, India hosts over 500 private companies actively engaged across the aerospace and defence value chain, ranging from system integrators and component manufacturers to startups innovating in unmanned systems, electro-optics, and C4ISR technologies.

Key Private Sector Players

- **Tata Group (Tata A&D):** Tata Advanced Systems Limited (TASL), the aerospace and defence arm of the Tata Group, has opened its first overseas defence manufacturing facility in Berrechid, Morocco. This 20,000-square-meter plant, the largest defence facility in Morocco, produces the Wheeled Armoured Platform (WhAP) 8x8, jointly developed with DRDO. It marks Tata's entry into the African defence market and is India's first private defence plant abroad, supporting regional and export demands. The facility was inaugurated by India's Defence Minister Rajnath Singh in September 2025 and is a significant step in boosting India's global defence footprint.
- **Larsen & Toubro (L&T):** Known for missile systems, artillery guns, communication, and land and naval platforms. L&T co-owns the missile JV 'L&T MBDA Missile Systems Ltd' and is a key player in artillery manufacturing and upgrades.
- **Mahindra Defence:** Active in aerospace structures (Tier-1 supplier to Airbus Helicopters), naval systems (underwater tech and marine applications), and defence training services.
- **Godrej Aerospace:** A division of Godrej & Boyce, is a leading manufacturer of precision aerospace and defence components, including actuators, valves, pumps, and complex fabrications. It plays a crucial role in India's space and missile programs, producing critical parts like the Vikas engine for ISRO's launch vehicles and assemblies for the BrahMos missile.
- **Bharat Forge/Kalyani Group:** Specializes in advanced armour solutions, missile systems, JVs with Israel's Rafael and IAI, and metallurgical expertise for defence platforms.
- **Dynamatic Technologies:** Pioneers in precision aerospace components, notably delivering the front fuselage for the Tejas fighter's final operational clearance (FOC) version, an unprecedented achievement for Indian private players.
- Max Aerospace, VEM Technologies, Ananth Technologies, and Kirloskar are key MSME and SME participants providing MRO services, technological solutions, avionics components, and system integration support.

MSMEs and Startups: Innovation Engines

The MSME sector, consisting of nearly 16,000 MSMEs, are linked to defence production and supply chains, as of 2026. MSMEs have become the backbone of component manufacturing and subsystem development. MSMEs have received a new lease of growth through:

- The iDEX (Innovations for Defence Excellence) initiative is fostering startups and SMEs for next-generation technologies.
- The SRIJAN (Strategic Resourcing for Indigenisation through Joint Action) portal for indigenisation push and import substitution,
- Direct government schemes encouraging MSME participation in testing and production facilities,
- Access to Defence Industrial Corridors, which provide state-of-the-art infrastructure and attractive fiscal support.

Many startups are developing indigenous solutions in areas like AI-based surveillance, drone swarms, radars, electronic warfare, and tactical communication.

Private–Public Collaboration & Strategic Partnerships

A hallmark of the evolving ecosystem is the growing integration between DPSUs, DRDO, and private companies. The government has:

- Introduced the Development cum Production Partner (DcPP) scheme for private industry participation alongside DRDO in project execution,
- Simplified regulatory processes under the Defence Acquisition Procedure 2020 to facilitate private and foreign OEMs,
- Promoted joint ventures (JVs) and technology transfer arrangements to ramp up technology absorption and mass production capacities.

Prominent Partnership Examples

- Tata Advanced Materials and TAL Manufacturing Solutions are collaborating with HAL and global OEMs on advanced aero components and engines.
- Mahindra Aerostructures was awarded direct contracts by Airbus Helicopters for critical airframe components.
- Bharat Forge-Kalyani:
  - JV with Rafael for Spike ATGM missile manufacturing,
  - MoU with IAI on air and missile defence systems.
- L&T MBDA JV: Focused on next-generation missile development,
- Dynamatic Technologies: Manufacturing passenger and cargo doors for Airbus A220 aircraft and has proposed to make the Dornier Do328 fuselage in collaboration with Deutsche Aerospace. This contract is one of the largest aerospace export orders to India, supporting the Make in India initiative.

Market Share and Outlook

By FY 2024–25, the private sector accounted for approximately 23% of indigenous defence production—up from around 16% a few years earlier. This share is expected to grow sharply with new policies promoting greater industry participation, including enhanced FDI caps, procurement reforms favouring 'Make in India' solutions, and the proliferation of Defence Industrial Corridors.

The government's vision is aimed at achieving ₹3 lakh crore (approximately US$35 billion) in annual defence production and ₹50,000 crore (approximately US$6 billion) in defence exports by 2029, which will largely rely on private sector dynamism, innovation, and global partnerships.



DEFENCE INDUSTRIAL CORRIDORS (TAMIL NADU & UP)

To transform India into a global defence and aerospace manufacturing hub, the Government of India launched the concept of Defence Industrial Corridors (DICs) in 2018. These corridors are specialised industrial clusters designed to create an ecosystem that promotes indigenous defence production, encourages private sector participation, attracts foreign direct investment, and nurtures innovation in defence technologies.

The first two corridors were strategically located in the states of Tamil Nadu (TN) and Uttar Pradesh (UP), selected for their industrial base, infrastructure, skilled workforce, and connectivity to ports and defence establishments. These corridors form a crucial part of the National Defence Industrial Policy and Atmanirbhar Bharat initiative, aiming to make India a US$25 billion+ defence manufacturing giant with exports crossing US$5 billion by 2026.

TAMIL NADU DEFENCE INDUSTRIAL CORRIDOR

Geographical Spread and Infrastructure

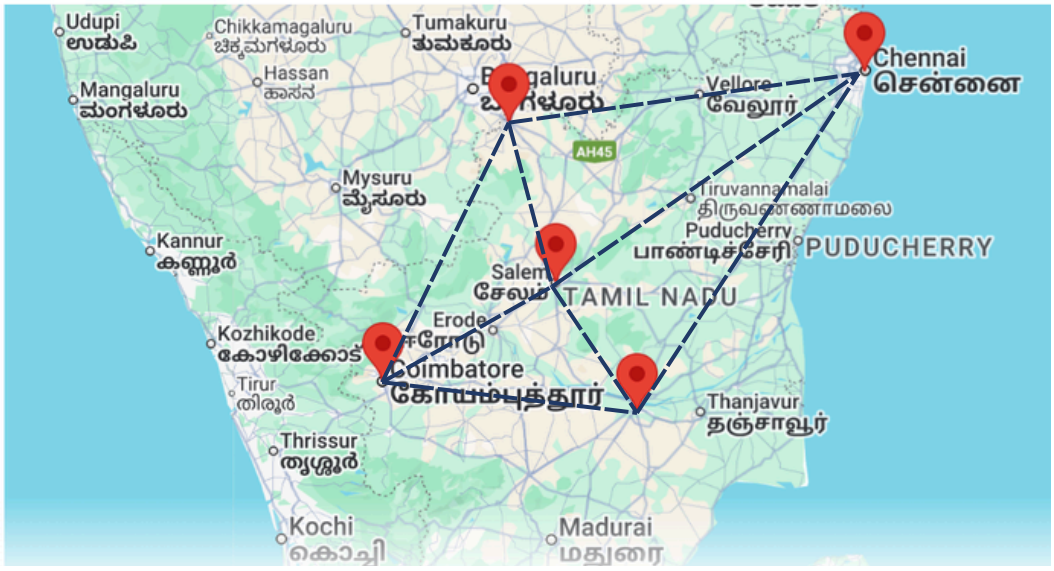
The Tamil Nadu corridor spans major industrial hubs including Chennai, Hosur, Coimbatore, Salem, and Trichy. It leverages existing automotive, aerospace, and heavy engineering clusters with robust ports and logistics infrastructure.

Investments and Development

- As of mid-2026, Tamil Nadu Defence Industrial Cooperation has attracted over ₹29,000 crore (USD 3.03 billion) with realized investments of around ₹4,870 crore (USD 48.7 billion).
- The corridor hosts more than 100 MSMEs and private companies engaged in aerospace components, defence electronics, armoured vehicle production, and space technology.
- State government incentives and the central government's Production Linked Incentive (PLI) scheme for aerospace manufacturing have catalysed rapid infrastructure growth and R&D investments.

Key Highlights

- Presence of HAL's major subcontractors and numerous Tier-1 and Tier-2 suppliers for Airbus and Boeing production lines.
- Emerging clusters of unmanned aerial vehicle (UAV) developers and semiconductor fabs catering to defence electronics.
- Integration with nearby ports enables efficient export logistics.



UTTAR PRADESH DEFENCE INDUSTRIAL CORRIDOR

Geographical Spread and Focus Areas

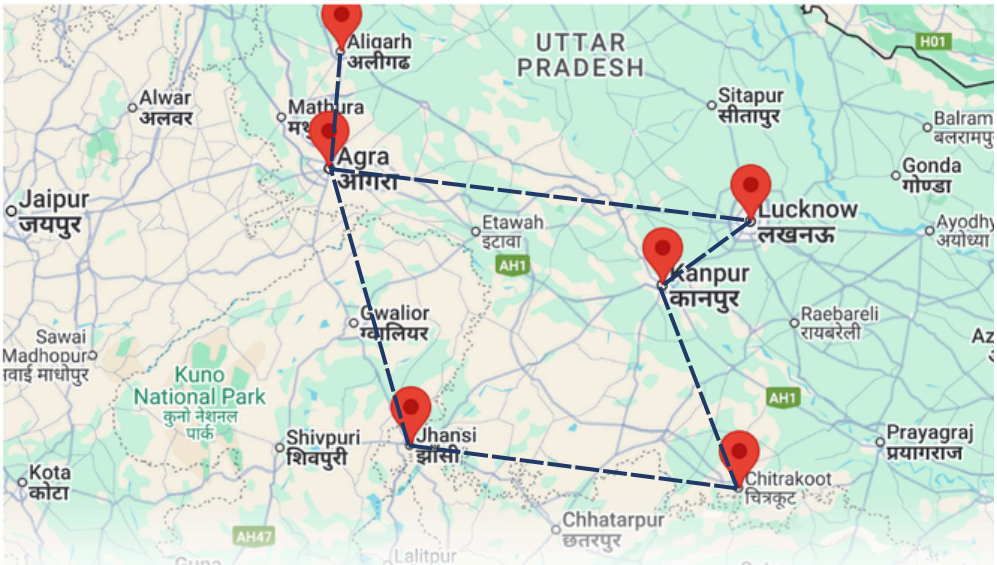
The UP DIC connects industrial cities such as Lucknow, Kanpur, Jhansi, Aligarh, Agra, and Chitrakoot. Unlike Tamil Nadu, UP's corridor focuses heavily on land-based defence systems, including artillery, small arms, heavy vehicle systems, and ordnance manufacturing. The Uttar Pradesh Defence Industrial Corridor continues to gain momentum with the establishment of a BrahMos missile manufacturing facility in Lucknow, enhancing indigenous missile production capacity and strengthening the corridor's strategic importance.

Investment and Development Status

- As of 2025, UP's corridor has signed over 253 MoUs worth ₹53,000 crore (~US$6.3 billion), reflecting immense investor confidence.
- It supports over 250 MSMEs and private companies engaged in forging, machining, ammunition manufacturing, and advanced composites.
- The corridor benefits from easy access to northern defence commands, DRDO labs, and large military bases, facilitating direct operational feedback and joint development.

Key Highlights

- L&T, Bharat Forge, and other leading defence manufacturers have expanded facilities here.
- The government focus on skill development programs to create a ready workforce aligned to defence production.
- Proximity to major rail and road networks enhances supply chain robustness.



FUTURE AGENDA

Impact and Future Outlook

Both corridors serve as national catalysts for transforming India's defence industrial base by:

- Supporting India's aim to increase indigenous defence production to 75% by 2025–26.
- Facilitating creation of nearly 5 lakh skilled jobs and thousands of MSME clusters by 2030.
- Attracting global OEMs' manufacturing facilities and R&D centres into India.
- Boosting defence exports through a streamlined manufacturing ecosystem and quality compliance.

Expansion and New Corridors

Building on the success of TN and UP, the government has announced two additional defence corridors in Maharashtra and Assam to leverage their unique capabilities and fortify defence manufacturing along different strategic geographies of India.

CIVIL AVIATION & MRO OPPORTUNITIES



India's civil aviation sector stands as one of the fastest-growing aviation markets globally, propelled by a rapidly expanding middle class, rising disposable incomes, and accelerating urbanization. In 2026, India ranks as the third-largest domestic aviation market worldwide, serving about 410–420 million passengers in FY 2025–26, including 320 million domestic flyers, and continues to post double-digit growth in passenger volumes year on year.

Forecasts by leading industry bodies project India's aviation market to grow at a robust 12%+ CAGR through 2033, pushing the market value beyond USD 40 billion while aircraft demand is projected to cross 2,200 aircraft by 2040. The steady expansion of low-cost carriers, increased regional air connectivity through government schemes like UDAN, and rising tourism are pivotal factors sustaining this trajectory. India's airport infrastructure has also been growing rapidly, with 165 operational airports in June 2026 and plans to scale to more than 220 airports within the next few years, facilitated by heightened public and private investments totaling billions of dollars. The development of new greenfield airports, such as Noida International (Jewar), and extensive upgrades of existing facilities underpin the infrastructure necessary for seamless aviation growth.

As of early 2026, the UDAN (Ude Desh ka Aam Naagrik) scheme continues to be a transformative driver for India's civil aviation and MRO sectors by enhancing regional connectivity and making air travel affordable and accessible to the common citizen. The scheme has expanded to cover over 120 new destinations under its latest phase, further developing regional airports and increasing flight frequencies. With financial incentives like Viability Gap Funding and reduced airport charges, UDAN has operationalized more than 619 routes and connected over 86 airports, stimulating regional economic growth, boosting tourism, and supporting the emergence of new regional airlines. This sustained growth under UDAN significantly strengthens India's civil aviation infrastructure and market, making it a pivotal opportunity within the Civil Aviation & MRO sector in early 2026.

Maintenance, Repair & Overhaul (MRO) facilities represent a critical and rapidly evolving segment of India's civil aviation ecosystem. As India's commercial and defence fleets expand in size and complexity, the demand for high-quality, cost-efficient MRO services surges. Supported by liberalized foreign direct investment policies and government incentives, MRO investments by global OEMs like Airbus and Boeing are creating a blueprint for indigenous capability building.

Together, these forces position India as not only a growing aviation consumer market but also an emerging global hub for aerospace maintenance, repair, and overhaul, making it one of the most attractive investment destinations in the sector globally. This chapter delves into the market size, infrastructure development, key industry developments, and immense opportunities the MRO sector offers in India's vibrant civil aviation landscape.

CIVIL AVIATION MARKET SIZE

India's civil aviation market is experiencing rapid expansion and is poised to become one of the world's largest by the end of this decade.

Passenger Traffic and Fleet Growth

The domestic market dominates traffic volumes, accounting for over 80% of passengers, supported by increased penetration into smaller cities and tier-2 and tier-3 towns under the UDAN regional connectivity scheme. International passenger traffic is steadily rebounding and expected to reach pre-pandemic levels within this year, with India connected globally through 100+ Indian and foreign airline operators, with Indian carriers rapidly expanding international connectivity and long-haul operations.

Freight and Cargo Segment

Indian airports handled approximately 3.96 million tonnes of air cargo in FY 2025-26, growing at a CAGR of over 7% since 2020. Air cargo growth is fueled by booming e-commerce demand, pharmaceutical exports, and perishable goods' transport under initiatives like Krishi UDAN. Freight movement is projected to cross 10-11 million tonnes by 2032, doubling its size within a decade.

Revenue and Economic Impact

The civil aviation sector contributes significantly to India's GDP, generating revenues estimated at USD 14.78 billion in FY 2025-26 and expected to reach USD 16.24 billion in FY2026-27, with employment impacts reaching millions directly and indirectly across airport operations, airlines, MRO, manufacturing, and related services. Passenger expenditure is forecast to touch ₹20 lakh crore (USD 240 billion) by 2030, propelled by rising tourism and business travel.

Infrastructure Expansion

India has witnessed a dramatic scale-up in airport infrastructure and modernization. As of 2025, there are 160+ operational airports, including greenfield facilities like Jewar Airport near Delhi and Navi Mumbai International Airport. The government targets around 220+ airports by 2030 and 350–400 airports by 2047, progressively improving connectivity and capacity across the country.

Outlook

Driven by favorable demographics, sophistication of travel demand, and proactive policy reforms, including partial privatisation of airports and liberalized investment regimes, India's civil aviation industry is set to sustain its staggering growth over the medium to long term. This will fuel substantial opportunities for aircraft manufacturers, ground handling, and especially the MRO sector that underpins long-term operational efficiency for airlines.

Policy and Regulatory Reforms

India has progressively liberalized foreign direct investment (FDI) norms to boost private participation and capital inflows across the civil aviation ecosystem:

- Scheduled Air Transport Service/ Domestic Scheduled Passenger Airline - FDI up to 49% and investment by Non-resident Indians (NRI) up to 100% allowed on the automatic route.
- Non-Scheduled Air Transport Service/ Non-Scheduled airlines, Chartered airlines, Cargo airlines, non-scheduled air transport services, helicopter services, seaplanes, ground handling, flying training institutes, technical training institutes, and Maintenance, Repair & Overhaul (MRO) services.- FDI up to 74% and investment by Non-resident Indians (NRIs) up to 100% allowed on the automatic route.
- Policies introduced under the National Civil Aviation Policy 2016 and subsequent amendments continue to emphasize affordable air connectivity, infrastructure modernization, and MRO sector growth.

Infrastructure and Investments

- The Airports Authority of India (AAI) announced a capital expenditure plan of over ₹25,000 crore (About $3.5 billion) for the next five years, earmarked for extensive airport modernization, new airport construction, and facilities enhancement.
- Major private investments include:
  - GMR Group's plan to raise $300 million for Hyderabad airport expansion.
  - Acquisition of Mumbai International Airport Limited by Adani Properties, marking a significant consolidation in airport management.
  - Zurich Airport International's agreement for the Noida International Airport (Jewar) development, enabling Delhi NCR's second airport.
- The government promotes sustainable aviation infrastructure through solar power installations and electric vehicle usage at airports.

Market and Industry Partnerships

- Airbus delivered a record 57 aircraft in 2024 to Indian carriers, sustaining demand during global economic uncertainties.
- Boeing and Airbus are strategically investing in setting up local MRO hubs in India, partnering with domestic companies to expand repair and overhaul capabilities.
- France-based Safran Group announced a $150 million MRO facility dedicated to aircraft engine maintenance and overhauls and continues expanding its India footprint.
- Emerging Indian airlines such as Akasa Air are expanding rapidly with new fleet inductions and regional connectivity drives.
- Adani Defence & Aerospace, in partnership with Prime Aero, is acquiring a 100% stake in Indamer Technics Private Limited (ITPL), a leading private-sector MRO company based in Nagpur.

Regional Connectivity and New Facilities

- The government inaugurated plans for India's first three water aerodromes in Andaman & Nicobar to boost tourism and regional logistics.
- The Krishi UDAN scheme is enhancing agricultural produce transport on domestic and international routes, improving farmer incomes and product values.
- Efforts continue in expanding heliports and enhancing cargo terminals alongside traditional passenger airport infrastructure.

These developments highlight India's dynamic civil aviation sector, driven by enabling policies, ambitious infrastructure projects, growing airline capacity, and deepening international collaborations.

KEY DEVELOPMENTS

Airport Network and Expansion

- As of June 2026, India boasts over 165 operational airports and airstrips, including major international, domestic, and regional connectivity airports. This is a marked increase from approximately 125 airports five years ago and is part of a government vision to expand the airport count to 220+ by 2027 and 350 by 2047, aligned with the Viksit Bharat roadmap.
- Greenfield projects like the Noida International Airport (Jewar), being developed under a concession agreement with Zurich Airport International, will serve as the second major airport for the Delhi National Capital Region, decongesting Indira Gandhi International Airport and creating a regional aviation hub by 2027.

Privatization and PPP Models

- Six major airports, including those in Mumbai, Delhi, Bengaluru, Hyderabad, Chennai, and Kolkata, are now operated under Public-Private Partnership (PPP) models, enhancing efficiency and service standards with global airport operators such as GMR, GVK, and Fraport managing operations.
- Maharashtra, Gujarat, and Telangana have emerged as key aviation hubs supported by thriving industrial, IT, and business ecosystems, catalyzing airport infrastructure growth.

Air Traffic Management and Technology

- Modernization of air traffic control (ATC) facilities includes the adoption of satellite-based navigation systems (GAGAN), automation of flight information management, and digital communication networks to enhance airspace capacity and safety.
- Investments in smart terminal technologies, biometric boarding, and self-service check-in systems at airports contribute to passenger experience enhancements expected in the coming years.



MRO OPPORTUNITIES

India's MRO industry is emerging as a critical segment supporting the fast-expanding civil aviation sector. Valued at approximately USD 1.7–2 billion in 2025–26, the industry is projected to grow at a CAGR of around 10–12% over the next decade, driven by a rapidly expanding commercial aircraft fleet, rising domestic air traffic, policy support for MRO localization, and increasing demand for cost-effective maintenance services.

Type	A320	A350	ATR 42/72	B737	B777	B787	Q400	CESSNA CARAVAN	DHC-6	EMB ERJ	EMB 175	HAL DO228	Total
Air India	141(300)	6(50)		(190)	27(10)	34(20)							208(570)
Akasa				27(226)									27(226)
Alliance Air			20									1	21
AIE	29			67									96
FLY91			3										3
FLYBIG									3				3
Indian One								2					2
Indigo	355(569)	(30)	50	12	2	1							420(599)
Spice jet				30(142)			21						51(142)
Star air										5	3		8
Total	525(869)	6(80)	73	136(558)	29(10)	35(20)	21	2	3	5	3	1	839(1537)
FLEET BY 2035	1394	86	73	694	39	55	21	2	3	5	3	1	2376
FIGURES IN BRACKETS SHOW QTY ON ORDER, TO BE PROGRESSIVELY SUPPLIED BY YEAR 2035													

As on Start of FY 2025-26



Demand Drivers

- India's commercial aircraft fleet has crossed approximately 1,000 operational aircraft, expected to reach 1,750 by 2037, creating sustained demand for aircraft servicing, component repair, engine maintenance, and overhaul activities.
- Increasing airline flight frequencies and global fleet standardization necessitate comprehensive MRO support services to ensure operational safety, compliance, and efficiency.
- The growth of regional airlines and charter services further widens the market for diverse MRO offerings, including line maintenance, component repair, and avionics calibration.

Government Initiatives and Policy Support

- The government permits 100% FDI in MRO under the automatic route, attracting global OEMs and investors to establish or expand their operations in India.
- The National Civil Aviation Policy (NCAP) 2016 and subsequent amendments provide guidelines favor the growth of the MRO sector through infrastructure incentives, tax rationalization, and streamlined regulatory frameworks.
- The Make in India initiative encourages local manufacture and overhaul of components to reduce dependence on imports and generate domestic employment.

Key Industry Developments

- Global manufacturers such as Boeing and Airbus have announced plans to establish world-class MRO facilities in India, partnering with local firms to address all segments of aircraft maintenance.
- France's Safran Group has invested over USD 150 million in setting up an aircraft engine MRO unit to serve India's growing market and neighboring countries.
- Indian private players like Max Aerospace, Air Works, and Indamer are expanding their footprints, developing capabilities across avionics, engines, and airframe maintenance.
- Emerging tech integration, including predictive maintenance, digital twins, and AI-based diagnostics, is enhancing efficiency and turnaround times, positioning Indian MRO centers as competitive global hubs.

Market Potential and Export Opportunities

- India aims to capture a significant share of the estimated USD 100 billion global MRO market by 2030, leveraging cost advantages, a skilled workforce, and a growing domestic fleet size.
- Developing MRO capabilities aligns with India's broader ambitions of defence indigenization, with increasing crossover between civilian and military aircraft maintenance capabilities.
- Export from Indian MRO centers to neighbouring South Asian and Middle Eastern countries is projected to increase, supported by India's strategic location and growing reputation as an aviation services hub.

MRO REGULATOR IN INDIA - DEFENCE

Center for Military airworthiness Certification (CEMILAC)

- Represents government for certification of Design of Military Airborne equipment & Systems
- Indigenization (Localization) of equipment and components
- Type certification of consumables for general engineering purpose like cleaning and corrosion prevention

Director General of Aeronautical quality Assurance (DGAQA)

- Regulating Agency for process control
- Auditing of process
- Auditing of quality Management systems
- Auditing of vendors for airborne & allied items

MRO REGULATOR IN INDIA - CIVIL

Directorate of Civil Aviation D G C A

- Aircraft Certification
    1. Type Certification
    2. Design Acceptance
    3. Design Organization
    4. Production Organization
    5. Tech Orders
- Aircraft Registration
- Continued Airworthiness
- Approval of MRO centres
- Simulators



CHALLENGES IN MRO SECTOR

- Sub-scale operations in Indian Civil MRO.
- Limited Investment: Needs Anchor firms catering Nose- to- tail MRO.
- Global Engine MRO centres are fully booked, leaving Indian Operators no room. Hence, the dire requirement for augmenting the Indian facility set up.
- Lack of Eco-system for Spare Parts: OEMs non-sync with MRO Players
- Low Labour productivity: 60 MUSD per 1000 Indian MRO Tech personnel vs 230 MUSD per 1000 Global MRO Tech personnel. India's MRO sector continues to face productivity and skill-gap challenges compared with established global MRO hubs such as Singapore, Dubai, and Europe, particularly in advanced engine maintenance, component repair, and high-value overhaul capabilities.
- OEM/IP issues with independent MRO players.
- Quality /Number of Technicians needs near term substantial improvement to bring Indian MRO up to comparable global standards.
- Long-term policy at the apex level to promote Indian Domestic MRO.
- Pathway to bring DGCA Certification in sync with EASA and FAA .

FDI POLICY

Up to 100% FDI is permitted in Non-scheduled air transport services under the automatic route. Up to 100% FDI is permitted in helicopter services and seaplanes under the automatic route. Up to 100% FDI is permitted in MRO for maintenance and repair organizations; flying training institutes; and technical training institutes under the automatic route. Up to 100% FDI is permitted in Ground Handling Services subject to sectoral regulations & security clearance under the automatic route. Up to 49% in Scheduled Air Transport Service/Domestic Passenger Airline and Regional Air Transport Service under automatic route. Over 49% in Scheduled Air Transport Service/Domestic Passenger Airline and Regional Air Transport Service under government route.

INDIA ENTRY & OPERATING MODELS



As India transforms into one of the world's most attractive aerospace and defence manufacturing destinations, international companies are presented with multiple strategic pathways to enter and operate in this rapidly expanding market. With the Ministry of Defence declaring 2025 as the "Year of Reforms," the sector has witnessed unprecedented policy liberalization, investment incentives, and partnership opportunities that make market entry more accessible than ever before.

Global aerospace and defence companies today face a strategic choice: how to best capitalize on India's burgeoning market while aligning with the government's "Atmanirbhar Bharat" (Self-Reliant India) vision. Saab's 2026 proposal for a Gripen E industrial ecosystem in India highlights the increasing use of technology transfer, software ownership, local manufacturing, and long-term capability development as competitive market-entry models. The operating landscape offers multiple entry models, from direct exports and wholly-owned subsidiaries to strategic joint ventures, technology transfer arrangements, and contract manufacturing partnerships. Each model presents distinct advantages, regulatory requirements, and long-term strategic implications.

The success of partnerships such as the Tata-Airbus C-295 aircraft manufacturing JV, the BrahMos missile collaboration between DRDO and Russia's NPOM, and the L&T MBDA missile systems partnership demonstrates the viability and mutual benefits of well-structured India entry strategies. As India aims to achieve ₹3 lakh crore (approximately US$35 billion) in annual defence production and ₹50,000 crore (approximately US$6 billion) in defence exports by 2029, international companies that establish deep, collaborative partnerships stand to benefit significantly from this growth story.

DIRECT EXPORTS

Direct exports represent the most straightforward entry model for international aerospace and defence companies seeking to access India's growing market without establishing a local manufacturing presence.

Market Opportunities: India remains one of the world's largest defence importers, with annual procurement exceeding US$15 billion. The country's modernization programs across the air force, navy, and army create substantial demand for advanced platforms, subsystems, and components that cannot yet be manufactured domestically.

Regulatory Framework: Export to India is governed by the Defence Trade and Technology Initiative (DTTI) for strategic partners, bilateral defence cooperation agreements, and India's Defence Acquisition Procedure (DAP) 2020. Key considerations include:

- Government-to-government (G2G) sales for major platforms
- Commercial sales through established distributors and agents
- Compliance with end-user certificates and export licensing requirements
- Integration with India's offset policy for contracts above ₹2000 crore

Strategic Advantages: Direct exports offer immediate market access, lower initial investment, and the ability to test market demand before committing to local manufacturing. Companies can leverage India's robust logistics infrastructure and established defence procurement channels.
Recent Trends: Notable direct export successes include advanced radar systems, electronic warfare suites, engines, and specialized components where India lacks indigenous capability. The government's emphasis on interoperability with allied nations has also increased demand for NATO-standard equipment.

MAJORITY FOREIGN INVESTMENT STRUCTURE

Investment Framework: Foreign companies can establish 100% owned subsidiaries through the government approval route for accessing modern technology, while 74% is the maximum under automatic route. For non-combat platforms, dual-use technologies, and support services, higher ownership percentages may be possible with government approval.

Operational Benefits: Majority ownership provides substantial operational control, intellectual property protection, direct customer relationships, and strategic flexibility. Companies can establish dedicated R&D centers, manufacturing facilities, and service centers tailored to Indian requirements while maintaining controlling interest.

I**nfrastructure Support:** India's defence industrial corridors in Tamil Nadu and Uttar Pradesh offer plug-and-play infrastructure, single-window clearances, and fiscal incentives. Additional corridors planned in Maharashtra and Assam will further expand options.

Success Examples: Global companies like Safran (establishing MRO facilities), Boeing (partnership centers), and Swedish company Saab (receiving India's first 100% FDI approval for Carl-Gustaf rocket manufacturing) have successfully established foreign-controlled operations focusing on manufacturing, R&D, and aftermarket support.

Compliance Requirements: Foreign-majority subsidiaries must comply with industrial licensing, environmental clearances, security vetting procedures, and increasingly stringent indigenization requirements under government contracts.

JOINT VENTURE/STRATEGIC PARTNERSHIP (SP MODEL)

The Strategic Partnership (SP) model, introduced in DAP 2020, represents the government's preferred approach for major defence acquisitions, mandating collaboration between foreign OEMs and qualified Indian Strategic Partners.

SP Model Framework: Under this model, foreign companies partner with pre-qualified Indian entities (Tata, L&T, Mahindra, Reliance, Bharat Forge, etc.) to manufacture platforms locally. The Indian partner must hold majority equity and lead project execution.

Qualification Criteria: Strategic partners are selected based on financial capability (minimum ₹4,000 crore turnover), manufacturing experience, R&D infrastructure, and track record in complex systems integration. Foreign partners contribute technology, expertise, and global supply chain access.

Notable Collaborations:

- Tata Advanced Systems-Airbus: C-295 transport aircraft manufacturing in Gujarat
- L&T-MBDA: Missile systems manufacturing and development
- Mahindra-Airbus Helicopters: Helicopter manufacturing and support
- Reliance-Rheinmetall: Ammunition manufacturing facility in Maharashtra

Benefits: JVs enable technology absorption, workforce development, export potential, and long-term industrial capability building. Foreign partners gain market access, while Indian partners acquire advanced technologies and global market reach.

Challenges: Complex negotiations around technology transfer depth, intellectual property sharing, manufacturing responsibilities, and export rights require careful structuring of partnership agreements.



TECHNOLOGY TRANSFER & LICENSING

Technology Transfer (ToT) and licensing arrangements form critical components of India's defence acquisition strategy, enabling indigenous capability development while providing revenue streams for international companies.

ToT Requirements: Major defence contracts typically mandate 30-70% technology transfer depending on the platform complexity and strategic importance. The government prioritizes the transfer of manufacturing processes, design know-how, and maintenance capabilities.

Licensing Models: Companies can license technologies for:

- Manufacturing under license (MUL) for complete platforms
- Component and sub-system licensing for indigenous integration
- Maintenance and overhaul technology for lifecycle support
- Dual-use technology licensing for civilian applications

DRDO Collaborations: The Defence Research & Development Organisation actively seeks international partnerships for co-development and technology sharing in cutting-edge areas like hypersonics, AI-based systems, advanced materials, and electronic warfare.

Revenue Optimization: Successful ToT arrangements can generate sustained licensing fees, training revenues, technical support income, and potential royalties from derivative products developed by Indian partners.

Recent Examples: Technology transfers in areas such as radar systems (Israeli partnerships), missile technologies (BrahMos collaboration), helicopter manufacturing (HAL-foreign OEM partnerships), Airbus–Tata C-295 aircraft manufacturing program, the GE Aerospace–HAL F414 engine technology transfer initiative, Safran's collaboration on aero-engine technologies, MQ-9B UAV industrial partnerships, and continuing Rafale-related industrial cooperation, all of which reflect India's growing emphasis on localization, technology absorption, and indigenous capability development.



CONTRACT MANUFACTURING / OFFSET PARTNERSHIPS

Contract manufacturing and offset partnerships provide flexible entry models that leverage India's growing manufacturing capabilities while meeting regulatory requirements for local value addition.

Offset Policy Framework: Foreign vendors on contracts exceeding ₹2000 crore must discharge offset obligations worth 30% of the contract value through Indian manufacturing, technology transfer, or export facilitation. The policy aims to build domestic industrial capacity.

Manufacturing Options:

- Complete vehicle/platform manufacturing by qualified Indian partners
- Component and sub-assembly manufacturing for global supply chains
- Maintenance, Repair, and Overhaul (MRO) service centers
- Export-oriented manufacturing using India as a production hub

Partner Selection: International companies typically partner with established manufacturers like Tata, L&T, Mahindra, and HAL or specialized MSMEs with relevant capabilities. Partner qualification includes technical competence, quality certifications, and financial stability.

Value Proposition: Contract manufacturing offers cost advantages (typically 30-40% lower than Western manufacturing), access to skilled labor, established supply chains, and potential for exports to third countries. India's growing reputation for quality aerospace manufacturing enhances this proposition.

Offset Discharge Mechanisms: Companies can fulfill offset obligations through direct purchases from Indian manufacturers, investments in Indian facilities, technology transfer to Indian companies, or facilitating exports of Indian-made products.

Success Stories: Multiple international companies have successfully established contract manufacturing partnerships, particularly in aerospace components, electronics, and sub-systems, creating mutually beneficial long-term relationships that support both market access and offset compliance.

FISCAL, TRADE & COMPLIANCE STACK



India's aerospace and defence sector benefits from a robust fiscal incentive framework, streamlined trade policies, and comprehensive compliance mechanisms designed to attract foreign investment while supporting indigenous capability development. The government's proactive approach includes production-linked incentives, customs duty exemptions, and simplified tax structures that create a competitive operating environment for international and domestic companies.

PLI SCHEMES & STATE INCENTIVES IN AEROSPACE & DEFENCE

India's PLI framework has emerged as a cornerstone for attracting large-scale manufacturing investments in aerospace and defence. While a dedicated aerospace PLI scheme is under consideration, existing sectoral PLI programs directly benefit aerospace manufacturing:

Drone PLI Scheme 2025: The government launched an expanded ₹2,000 crore (US$240 million) drone incentive package for 2025-2028, significantly scaling up from the modest ₹120 crore scheme launched in 2021. This three-year program focuses on:

- Manufacturing of drones and critical components (motors, sensors, imaging systems)
- Software development and counter-drone systems
- Target of 40% local content for critical drone components by 2028
- Reducing dependence on foreign suppliers, particularly Chinese manufacturers

Electronics and Semiconductor PLI: Aerospace companies benefit from the broader ₹76,000 crore electronics PLI scheme covering avionics, radar systems, communication equipment, and electronic warfare systems critical to aerospace applications.

Automotive PLI Impact: The automotive sector PLI indirectly supports aerospace through shared manufacturing capabilities in precision engineering, advanced materials, and component manufacturing.

Proposed Aerospace-Specific PLI

Industry experts advocate for a dedicated aerospace PLI scheme that could accelerate India's ascent in the global aerospace supply chain. As highlighted by aerospace industry leaders, such a scheme could attract large-scale investments and encourage Indian companies to scale manufacturing capabilities to serve the global market where India currently contributes only 1-1.5% despite accounting for 10-15% of global commercial aircraft demand.

State-Level Incentives

- **Tamil Nadu:** Offers comprehensive incentives through the Defence Industrial Corridor including land allocation, power subsidies, skill development programs, and single-window clearances for aerospace and defence manufacturing.
- **Uttar Pradesh:** Provides similar benefits through its Defence Industrial Corridor with additional focus on heavy manufacturing and testing facilities.
- **Gujarat and Maharashtra:** Emerging as key aerospace hubs with state-specific PLI schemes, infrastructure development, and export promotion incentives.

CUSTOMS & GST: KEY DUTY EXEMPTIONS FOR DEFENCE IMPORTS

The government has significantly expanded customs duty exemptions for critical defence imports through Notification No. 37/2025-Customs, effective September 22, 2025. Key exemptions include:

Military Platforms and Systems:

- Military transport aircraft (C-130, C-295 MW)
- Ship-launched missiles and rockets (caliber above 100mm)
- Unmanned underwater vehicles and deep submergence rescue vessels
- Remotely piloted aircraft for military use

Advanced Technologies:

- Flight motion simulators and target motion simulators
- High-performance batteries for drones
- Ejection seats for fighter aircraft
- Software-defined radios and communication devices
- Low noise amplifiers for missile systems

Support Equipment:

- Parts, spares, tools, and accessories for artillery systems, rifles, aircraft, and missiles
- Testing equipment and technical documentation
- Air diving and rebreather sets
- Sonobuoys for naval air assets

Strategic Exclusions: The policy deliberately excludes certain items where India has developed indigenous capability, including 12.7mm SRCG, 155mm/45 Cal Dhanush artillery, and 84mm RL Mk-III, protecting domestic manufacturing.

GST Rationalization for Defence Sector

MRO Services: GST on Maintenance, Repair, and Overhaul (MRO) services has been reduced to 5%, making India more competitive as an MRO hub for commercial and defence aircraft.

GST 2.0 Impact: The comprehensive GST overhaul implemented in September 2025 includes:

- Consolidated tax slabs with simplified 5% and 18% rates for most goods
- Enhanced exemptions for aerospace components and defence equipment
- Streamlined compliance procedures for cross-border transactions

Input Tax Credit: Full input tax credit availability on capital goods, raw materials, and services used in aerospace and defence manufacturing enhances cost competitiveness.

TRANSFER PRICING: CRITICAL FOR INTERCOMPANY CONTRACTS

Regulatory Framework

Transfer pricing compliance is crucial for multinational aerospace and defence companies operating through Indian subsidiaries or joint ventures. India's transfer pricing regulations, aligned with OECD BEPS guidelines, require all intercompany transactions to be conducted at arm's length pricing.

Key Compliance Requirements

Documentation Requirements:

- Contemporaneous documentation for all related party transactions
- Economic analysis supporting transfer pricing methods
- Country-by-Country (CbC) reporting for large multinationals
- Master File and Local File preparation

Applicable Transactions:

- Intercompany service agreements between foreign headquarters and Indian subsidiaries
- Technology licensing and royalty payments
- Manufacturing and procurement contracts
- Cost-sharing arrangements for R&D activities

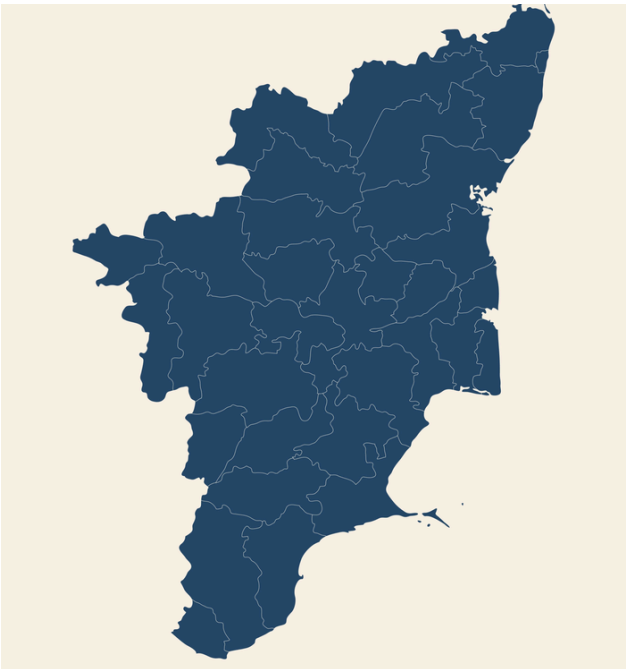
Industry-Specific Considerations

- **Joint Ventures:** Indian aerospace JVs with foreign partners require careful transfer pricing structuring, as Indian JV companies and foreign shareholders are considered "associated enterprises" under Indian regulations.
- **Technology Transfer:** Royalty payments for technology licensing must comply with arm's length pricing principles, with detailed benchmarking analysis required for specialized aerospace technologies.
- **Contract Manufacturing:** Toll manufacturing arrangements and contract production agreements require appropriate transfer pricing documentation to justify profit margins and cost allocations.

Risk Mitigation Strategies

- **Advance Pricing Agreements (APAs):** Multinational companies can obtain APAs from Indian tax authorities to provide certainty on transfer pricing methods for 3-5 year periods.
- **Professional Support:** Given the complexity of aerospace industry transactions, companies typically engage specialized transfer pricing consultants to ensure compliance and minimize audit risks.
- **Penalty Framework:** Non-compliance can result in significant penalties ranging from 100-300% of tax difference, making proper transfer pricing planning essential for aerospace companies.

TAMIL NADU'S - AEROSPACE & DEFENCE





Tamil Nadu, located on India's southeastern coast, remains a fundamental pillar of India's industrial and economic landscape. As the second-largest state economy in India, Tamil Nadu boasts a diverse and well-developed industrial base backed by robust infrastructure, abundant skilled manpower, and a supportive business environment. The state plays a key role in driving India's manufacturing strength across multiple sectors, making it one of the most sought-after investment destinations in the country.

Over the years, Tamil Nadu has built global leadership in automotive manufacturing, electronics production, and heavy engineering, supported by world-class ports, airports, roadways, and educational institutions. The state's economic dynamism and industrial diversity provide fertile ground for the aerospace and defence sectors. Tamil Nadu's existing strengths in automotive OEMs, electronics manufacturing, and MSME capabilities create significant synergies with the requirements and complexities of aerospace and defence manufacturing, enabling a robust and responsive ecosystem.

Establishment of the Tamil Nadu Defence Industrial Corridor (TN DIC) integrates these strengths into a focused cluster aimed at making the state a premier hub for defence production, R&D, and exports. Anchored by nodal cities Chennai, Salem, Hosur, Tiruchirappalli, and Coimbatore, the corridor capitalizes on mature industrial clusters, skilled labor availability, dedicated infrastructure, and active participation by Defence Public Sector Units (DPSUs) and private enterprises.

This corridor is a testimony to Tamil Nadu's strategic importance within India's broader "Atmanirbhar Bharat" vision, positioning itself as a magnet for investments exceeding thousands of crores, high-technology manufacturing, and cutting-edge ecosystem development. The state's blend of industrial excellence, infrastructure readiness, educational prowess, and policy support represents a compelling advantage for aerospace and defence manufacturers aiming to capitalize on India's growth story.

FEW OTHER HIGHLIGHTS OF TAMIL NADU

- Tamil Nadu is India's second-largest economy, contributing approximately 9.2% to the national GDP with a Gross State Domestic Product (GSDP) estimated at around ₹27.5 lakh crore (US$ 345 billion) for 2024-25.
- The state achieved a real GDP growth rate of 11.2% in 2024-25, the highest among all Indian states, significantly above the national average, driven primarily by strong performance in the manufacturing and services sectors.
- Tamil Nadu is the leader in industrialization with over 40,000 operational factories, and it accounts for nearly 12% of India's manufacturing GDP. The state also has the largest number of registered MSMEs (more than 25 lakh Udyam-registered units), ranking second nationally in MSME strength.
- The services sector is the largest contributor to the state's economy, accounting for over 53% of the Gross State Value Added (GSVA), followed by the secondary (manufacturing and construction) sector at 33% and the primary sector (agriculture) at 13%.
- Tamil Nadu is a major export hub, with exports valued around US$ 30.5 billion in 2025, primarily in automobiles, auto components, textiles, engineering products, and electronics.
- The state benefits from a world-class infrastructure backbone, including four major ports contributing nearly 19% of India's cargo capacity, four international airports handling over 23 million passengers annually, and extensive road and rail networks that facilitate industrial growth.
- Tamil Nadu's power sector is well diversified, with nuclear power plants at Kalpakkam and Kudankulam; large-scale thermal, solar, and wind power installations ensure reliable and cost-effective energy supply to industries.
- The state's workforce is supported by over 500 engineering colleges and numerous polytechnic institutions, ensuring a steady pipeline of skilled manpower for its industries.
- Major global and domestic companies across sectors such as automobiles, electronics, textiles, and renewable energy have expanded operations in Tamil Nadu, with new investments exceeding US$ 2.5 billion in 2024-25, driving further growth and job creation.

TAMIL NADU DEFENCE INDUSTRIAL CORRIDOR

Strategic Strengths and Nodes

- **Chennai:** South Asia's automobile capital, Chennai hosts numerous military bases such as Avadi with Heavy Vehicles Factory (HVF), Engine Factory Avadi, Combat Vehicles Research and Development Establishment (CVRDE), and Ordnance Factories. It boasts India's largest commercial port, crucial for defence exports, and is home to a developing Aerospace Park with an Advanced Computing and Design Engineering Centre (ACDEC) supporting OEMs and startups.
- **Trichy:** Known for its advanced SMEs specializing in tungsten and heavy alloys crucial for shipbuilding and aerospace. It houses Bharat Heavy Electricals Limited (BHEL) and the Ordnance Factory Tiruchirappalli (OFT), manufacturing rifles, grenade launchers, and specialized alloys. A dedicated testing center is planned here to support fabrication and testing needs.
- **Coimbatore:** A historic industrial engine of South India, Coimbatore is rich in foundries, machining, tooling, and forgings, with over 14,000 MSMEs supplying the aerospace and defence chains. It is an education and engineering talent hub, often dubbed the "Manchester of South India." Coimbatore hosts the SEZ unit of L&T MBDA Missile Systems JV for missile system manufacturing.
- **Salem:** An industrial and mineral resource-rich city, Salem supplies steel and power grid components and is strategically placed in the quadrilateral to serve defence-heavy industries.
- **Hosur:** Positioned on the Chennai-Bengaluru industrial corridor, Hosur hosts many automobile and heavy engineering giants. Its proximity to Bengaluru's IT and electronics ecosystem is leveraged for embedded systems and software control development, critical to aerospace and defence engineering.

Investments and Infrastructure

- Cumulative signed investments in the Tamil Nadu Defence Industrial Corridor exceed ₹29,000 crore (USD 3.03 billion) with realized investments of around ₹4,870 crore (USD 48.7 billion), led by Defence Public Sector Undertakings (DPSUs) such as OFB, Bharat Electronics Limited (BEL), Bharat Dynamics Limited (BDL), Bharat Heavy Electricals Limited (BHEL), Bharat Earth Movers Limited (BEML), and Mazagon Dock Limited (MDL).
- The TIDCO Aerospace Park offers 250 acres (expandable to 500 acres) complete with an Advanced Computing & Design Engineering Centre (ACDEC) that supports incubation, innovation, and manufacturing readiness. BHEL is setting up an aerospace division in Ranipet with a ₹200 crore investment, and a major launch station is planned at Kulasekarapattinam in Thoothukudi district with an estimated ₹1,000 crore outlay.
- Multiple MPCs (Manufacturing Plant Clusters) and SEZs are being developed, including the L&T MBDA SEZ unit in Coimbatore for missile weapons, and private players like Alpha Design and TVS Group are investing in tactical combat gear and aerospace systems manufacturing.
- The corridor incorporates a network of testing and certification centers, an aircraft MRO facility in Krishnagiri with another upcoming in Chennai, and plans for UAV testing complexes and flight academies, as well as an aerospace component manufacturing park at Varapatti.

Outlook and Significance

The Tamil Nadu Defence Industrial Corridor embodies the state's ambition to be India's aerospace and defence capital, emphasizing indigenous production aligned with India's evolving defence needs and 'Make in India' drives. Its holistic approach integrating manufacturing, R&D, testing, and skill development positions Tamil Nadu as a magnet for domestic and foreign investments in defence innovation and production.

The corridor is expected to create downstream opportunities for MSMEs and foster strategic public-private partnerships crucial for advancing India's defence manufacturing self-reliance goals.



GOVT POLICIES SUPPORTING AEROSPACE INDUSTRY IN TAMIL NADU

Tamil Nadu Aerospace & Defence Industrial Policy 2022

The Government of Tamil Nadu launched the Aerospace & Defence Industrial Policy 2022 with the vision of making the state the preferred destination for investment, innovation, design, engineering, manufacturing, and services in the aerospace and defence sector. The policy aims to create a world-class, high-technology aerospace and defence ecosystem by attracting global OEMs, Tier-1 suppliers, MSMEs, startups, and R&D institutions.

Key Targets of the Policy include:

- Attract investments worth ₹75,000 crore over 10 years
- Generate nearly 1 lakh direct and indirect jobs
- Strengthen Tamil Nadu Defence Industrial Corridor
- Promote indigenous manufacturing under Make in India and Atmanirbhar Bharat
- Develop aerospace and defence parks, MRO facilities, skilling centres, and R&D ecosystems

Key Incentives under the Policy:

Capital Subsidy

- MSME units with investment up to ₹10 crore - 10% capital subsidy on eligible fixed assets
- Units with investment between ₹10 crore and ₹300 crore - 5% capital subsidy on eligible fixed assets
- Additional 50% subsidy for units located in Southern Districts

Land Cost Incentives

- 20% concession on land cost for units allotted land in SIPCOT/TIDCO Aerospace & Defence Parks
- Up to 30% concession for units undertaking defence offset obligations

Stamp Duty Concession

- 50% reimbursement of stamp duty on land sale/lease
- 100% reimbursement for projects in Southern District parks

Infrastructure Subsidy

- 10% subsidy (up to ₹10 crore) for the development of Aerospace & Defence Parks
- Applicable for MRO complexes as well
- Additional 50% support for parks in Southern Districts

Skill Development Subsidy

- Reimbursement of 100% training cost up to ₹10,000 per trainee per month for one year

Certification Support

- 50% reimbursement of certification costs
- Maximum support up to ₹25 lakh per company

Electricity Tax Exemption

- 100% exemption on electricity tax for power purchased from TANGEDCO

Environmental Infrastructure Support

- 25% subsidy on capital cost for ETPs/Hazardous Waste facilities
- Maximum support up to ₹1 crore

Special Incentives

- Tailor-made incentives for mega projects and anchor units
- Special funding support for advanced aerospace and defence manufacturing projects
- Support for companies undertaking defence offset obligations

Operational & Labour Reforms

- Flexible labour regulations
- 24x7 operations support
- Women's employment in night shifts permitted
- Facilitation for contract labour employment

Tamil Nadu Industrial Policy, 2021

Tamil Nadu Industrial Policy 2021-2025 aims to achieve four key objectives:

- Attracted investments worth over ₹10 lakh crore ($135 billion) in FY 2025-26. Aims to achieve an annual growth rate of 15% in the manufacturing sector during the policy period. Increase the contribution of the manufacturing sector to 30% of the state's economy by 2030 from 25% now, and the policy has already created over 32 lakh direct and indirect jobs by 2025.
- New industrial parks policy is applicable to projects establishing or expanding industrial units, research & development, warehousing, and logistics, except in 14 sectors specified by the policy. Investments made from January 1, 2021, will be considered eligible for availing incentives.
- This policy provides a structured package of incentives for companies looking to invest more than ₹500 crore in the State. It offers four different subsidy models to investors — SGST reimbursement, fixed capital subsidy, flexible capital subsidy and turnover subsidy.
- It also provides a bigger set of incentives in "Sunrise Sectors". Aerospace & Defence has been classified as a "Sunrise Sector" category aimed at getting a lot of support from the Government.

Incentives for Industries:

Government of Tamil Nadu intends to support the projects in manufacturing with the potential for positive externalities in the State, through the following Incentive Packages:

- Structured Package
- Incentives for Sunrise Sector
- Incentives for Industrial Parks
- Incentives for R&D Projects
- Incentives for Logistics Infrastructure
- Incentives for Foreign Direct Investment
- Incentives for Sub-Large Projects

Eligibility & Definitions:

INVESTMENT COMMITMENT RANGE (RS IN CR)

PROJECT CATEGORY	MINIMUM INVESTMENT	MAXIMUM INVESTMENT PERIOD	STANDARD INVESTMENT
SUB-LARGE	50	300	4 years
LARGE	300	500	4 years
MEGA	500	5000	4 years
ULTRA MEGA	5000	-	7 years

Structured Package For Large & Above Projects

The Structured Package of Incentives includes:

- Investment Promotion Subsidy
- Training Subsidy
- Land Cost Incentive
- Interest Subvention
- SGST Refund on Capital Goods
- Standard Incentives:
  - Electricity Tax Incentive
  - Stamp Duty Incentive
  - Green Industry Incentive
  - Quality Certification Incentive
  - Intellectual Property Creation Incentive

Special Incentives for Sunrise sectors:
Aerospace & Defence sector is included in Sunrise sectors along with other sectors like EV, EV cells, Renewable energy components, Pharmaceuticals, Medical electronics, Technical textiles including medical textiles, etc.

Investment Promotion Subsidy
Sunrise Booster Projects in Sunrise Sector industries opting for Flexible Capital Subsidy shall get a Sunrise Booster of one which implies an additional capital subsidy of up to 7.5% of EFA (Section 13.1.3), depending upon the investment and employment.

Land Cost Subsidy for Eligible Projects in SIPCOT
Land allotment will be made for concessional rate applicable at different locations based on the district.

Stamp Duty Incentive
100% stamp duty exemption will be given for lease or purchase of land/ shed/ buildings meant for industrial use in land obtained from SIPCOT. In the case of private lands, stamp duty concession will be given as a 100% back ended subsidy for up to 50 acres on fulfilment of investment and employment commitment.

Enhanced Incentive for Quality Certification
Projects obtaining certifications like ISO, ISI, BIS, FPO, BEE, AGMARK, and ECOMARK or any other national or international certification shall be given a subsidy of 50% of the total cost incurred for obtaining the certification, as certified by a Chartered Accountant, limited to Rs. 1 cr. for the period of investment.

Enhanced Incentive For Intellectual Property creation:
The Government will reimburse 50% of the expenditure incurred by the Project for the investment period for a patent, copyright, trademarks, Geographical Indicators registration subject to a maximum of Rs. 1 cr. for the period of investment.

Interest Subvention:
Interest Subvention of 5% as a rebate in the rate of interest shall be provided be on actual term loans taken for the purpose of the financing the project, for a period of 6 years subject to the limits.

MSME (Micro, Small and Medium Enterprises) Policy, 2021

The following policy strategies are being adopted in the new MSME Policy:

Facilitate Investment, Including Foreign Direct Investment (FDI)

- MSME Trade and Investment Bureau (M-TIPB) will provide escort services to prospective foreign investors in the MSME sector. M-TIPB will facilitate the entrepreneurs in availing clearances from the Single Window Portal and escort them in setting up industries and availing incentives for them. The vendor MSMEs for the large enterprises will also be identified by M- TIPB.

Foster a culture of entrepreneurship and Innovation

- EDII is implementing the five-year strategy plan 2017-22 for entrepreneurship development and innovation by MSMEs.

Strengthen Ease of Doing Business

- To promote Ease of Doing Business, the MSME Department has developed and implemented a Single Window Portal for MSMEs as per the Tamil Nadu Business Facilitation Act, 2018.
- New MSMEs and start-ups will be exempted from approvals for establishment and operation for a period of three years based on self-certification, subject to the condition that the unit shall have mandatory approval within a period of one year from the expiry of the 3-year period.

Expand Access to Finance

- The existing schemes such as UYEGP and NEEDS will continue to be implemented for the promotion of MSMEs. TIIC is being infused with the additional capital of Rs.1000 crore to expand access to affordable institution finance to the MSMEs

- The Equity participation would be provided through the Tamil Nadu Start-up Fund of Funds, which would be managed by a professional financial agency as envisaged in the Tamil Nadu State Start-up and Innovation Policy, 2018
- The Incentives like Capital Subsidy, Special Capital Subsidy, Interest Subsidy, Subsidy for Backward Blocks and Agro Industries and Back-ended Interest subsidy will be available for MSMEs.

Augment Infrastructure support

- TANSIDCO will develop Plug & Play facilities, plots and sheds and make them available on short term lease.
- A corpus of Rs. 500 cr. for the Estate Infrastructure Development & Maintenance Fund will be setup for up-gradation and better maintenance of TANSIDCO estates.
- The infrastructure support for privately developed Industrial Estate is enhanced from Rs.10 crores/estate to Rs.15 crores/estate. Similarly the infrastructure support for shifting the existing units will be enhanced from Rs.15 crores/estate to Rs.20 crores/estate.

Enhance Availability of Skilled Human Resources

The Government will put in place an effective coordination mechanism for forecasting and development of skills involving the Tamil Nadu Skill Development Corporation (TNSDC), MSME Associations, Industrial Training Institutes, and the Department of Industries and Commerce to enable annual surveys for forecasting the requirement, planning and for organizing of skill training programmes for such sectors.

Facilitate Access to National and Global Markets

- The M-TIPB will play an active role to support the MSMEs for participation in National and International Trade Fairs and Exhibitions. The overseas markets will be explored for MSME products.
- The DICs will play an active role for the promotion of Export Hubs in the districts after analysing the export potential in the districts in coordination with the Director General of Foreign Trade (DGFT).

Improve Competitiveness and Productivity

- The MSME Department will design an MSME Manufacturing Competitiveness & Sustainability Initiative (MC&SI) to incentivize resource efficiency, environmental sustainability, and adoption of international product/process quality standards.
- The Promotion of Energy Audit and Conservation of Energy (PEACE) initiative and Q-Cert programme will be strengthened to ramp up productivity and competitiveness.
    - **Reimbursement charges towards Energy Audit and implementing the recommendation of audit is enhanced as follows:**
        - Incentive towards cost of Energy Audit enhanced from 50% to 75%, subject to a ceiling enhancement from Rs.75,000/- to Rs.1,00,000/- for Energy Audit.
        - Similarly incentive towards cost of eligible equipment for implementation of the recommendation is enhanced from 25% to 50% subject to a ceiling enhancement from Rs.2 lakhs to Rs.10 lakhs.
        - Reimbursement charges for quality certification enhanced from Rs.1 lakh to a maximum of Rs.2 lakhs for National Certification and Rs.10 lakhs for International Certification.
- The existing Government Testing Labs will be upgraded by providing state of the art facilities with NABL accreditation to meet the testing requirements of MSMEs.

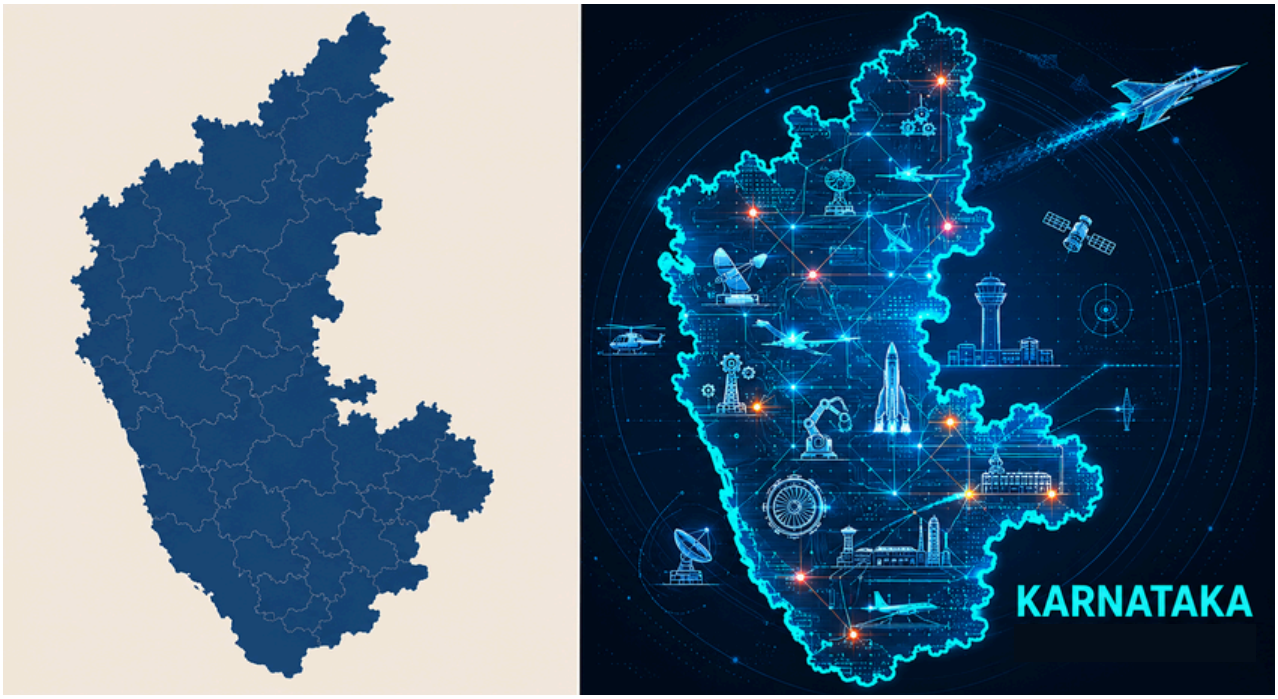
Reinforce Social Equity and Inclusion

The payroll-based subsidy will be introduced to promote regular employment. The existing employment-intensive subsidy is being redefined. The employer's contribution to the EPF for the first three years shall be reimbursed if the MSMEs provide employment to more than 20 persons.

Monitoring & Evaluation of Policy Implementation

Implementation of this Policy would be reviewed by the MSME Investment Promotion and Monitoring Board as constituted under the Tamil Nadu Business Facilitation Act, 2018.

KARNATAKA'S - AEROSPACE & DEFENCE



Karnataka, located in southern India, is one of the country's most advanced industrial and technology-driven states, playing a pivotal role in India's aerospace, defence, electronics, and innovation landscape. With a strong industrial base, highly skilled workforce, world-class research institutions, and robust infrastructure, the state has emerged as India's premier destination for aerospace and defence manufacturing, engineering, and R&D. The state contributes approximately 8.7% to India's GDP, with a Gross State Domestic Product (GSDP) estimated at over ₹28 lakh crore (US$ 340+ billion) in 2024–25. Karnataka is widely recognized as India's aerospace and defence capital, contributing nearly 65% of the country's aerospace and defence output. Bengaluru serves as the core of this ecosystem, supported by emerging industrial clusters across Mysuru, Tumakuru, Belagavi, Dharwad, and other regions. Karnataka accounts for 25% of India's aircraft and spacecraft industry, 67% of all aircraft and helicopter manufacturing for Defence services, and 65% of India's aerospace-related exports.

Karnataka hosts major Defence Public Sector Undertakings (DPSUs) and strategic institutions, including HAL, BEL, BEML, ISRO centres, DRDO laboratories, and the National Aerospace Laboratories (NAL). The presence of these institutions, alongside a strong network of MSMEs, startups, and private manufacturers, has enabled the development of a mature and globally competitive aerospace and defence ecosystem. The state's strengths in precision engineering, electronics, avionics, software, artificial intelligence, semiconductor design, and advanced manufacturing create strong synergies for aerospace and defence production.

Karnataka has also become a preferred destination for global aerospace OEMs and Tier-1 suppliers, with companies such as Airbus, Boeing, Safran, Collins Aerospace, Honeywell, and Rolls-Royce expanding engineering, manufacturing, and R&D operations in the state. Karnataka's industrial ecosystem is further supported by dedicated aerospace parks, strong logistics infrastructure, international airports, industrial corridors, and progressive policy support focused on innovation, ease of doing business, and high-technology manufacturing. The state also benefits from a deep talent pool generated by premier institutions such as IISc Bengaluru, NITK Surathkal, and hundreds of engineering colleges and technical institutes.

With its combination of industrial maturity, technological capabilities, research excellence, and strategic policy support, Karnataka continues to strengthen its position as a leading hub for aerospace, defence manufacturing, space technologies, MRO services, UAV systems, and next-generation advanced engineering in India.

FEW OTHER HIGHLIGHTS OF KARNATAKA

Karnataka has significant potential to further grow as a leading state in Aerospace & Defence due to the following advantages:

- Expertise in aerospace with more than 2,000 SMEs and 70% of India's supplier base that executes niche sub-contracting work for the Defence PSUs.
- Maximum number of engineering graduates in the country, with a large number of them employed in IT, design & engineering, affirming an advantageous position with reference to skill sets.
- Strong ancillary support ecosystem present with Karnataka being a leader in Machine Tools, Heavy Electric Machinery, Electronic Systems Design & Manufacturing (ESDM) and Software.

Bengaluru serves as the epicentre of India's aerospace ecosystem:

- Contributes over 65% of India's aerospace and defence R&D activity.
- Bengaluru is one of India's fastest-growing airports for both cargo and passenger traffic. Thus, there is strong potential for MRO and manufacturing of ground support equipment.
- Bengaluru, being recognized as the Silicon Valley of India, has a number of top companies in IT / ITES and electronics hardware, many of them being a part of the supply chain to the Aerospace sector.
- Hosts hundreds of aerospace companies and suppliers, forming one of Asia's largest aerospace clusters.
- Strong presence of global capability centres (GCCs) and engineering hubs.

This concentration enables collaboration across OEMs, startups, research institutions, and suppliers, accelerating innovation cycles.

Infrastructure & Ecosystem Support:

- Dedicated aerospace parks and SEZs (e.g., Devanahalli region).
- Proximity to Kempegowda International Airport (Bengaluru), which consistently tops international rankings, having won Skytrax's "Best Airport in India & South Asia" and Airports Council International's (ACI) "Best Airport for Arrivals Globally".
- Strong digital infrastructure supporting R&D and design operations.
- Well-developed startup and innovation ecosystem.



GOVT POLICIES SUPPORTING AEROSPACE INDUSTRY IN KARNATAKA

Karnataka Aerospace and Defence Policy, 2022

Karnataka Aerospace and Defence Policy (2022) aims to:

- Attract large-scale investment of approximately ₹45,000 crore into aerospace and defence manufacturing by 2027.
- Create employment, both direct and indirect, with projections of around 60,000 new jobs during the policy period.
- Develop Karnataka as a manufacturing and services hub, including manufacturing, Maintenance, Repair & Overhaul (MRO) services, and space applications for both domestic markets and exports.
- Enhance R&D infrastructure, innovation capability and skilled workforce tailored to sector needs.
- Improve ease of doing business through industry-friendly facilitation mechanisms.

Incentives and Concessions for MSMEs

To keep the momentum of growth and to encourage holistic development of MSMEs in the Aerospace & Defence sector, the State Government will provide the following incentives and concessions:

<table>
<tr><th>Type of Support</th><th>General Category</th><th>Special Category (SC / ST, Women, Minorities, Physically Challenged and ExServicemen Entrepreneurs)</th></tr>
<tr><td rowspan="2">Investment Promotion Subsidy for Micro & Small Enterprises</td><td>a) Micro Enterprises:
Zone 1: 30% of VFA (max of INR 25 lakh)
Zone 2: 25% of VFA (max of INR 20 lakh)
Zone 3: 25% of VFA (max of INR 20 lakh)</td><td>a) Micro Enterprises:
Zone 1: 35% of VFA (max of INR 30 lakh)
Zone 2: 30% of VFA (max of INR 25 lakh)
Zone 3: 30% of VFA (max of INR 25 lakh)</td></tr>
<tr><td>b) Small Enterprises:
Zone 1: 25% of VFA (max of INR 100 lakh)
Zone 2: 20% of VFA (max of INR 90 lakh)
Zone 3: 20% of VFA (max of INR 90 lakh)
VFA - Value of Fixed Assets</td><td>b) Small Enterprises:
Zone 1: 30% of VFA (max of INR 105 lakh)
Zone 2: 25% of VFA (max of INR 95 lakh)
Zone 3: 25% of VFA (max of INR 95 lakh)
Note: The above incentives include an additional subsidy of 5% of VFA (max. of INR 5 lakhs)</td></tr>
<tr><td>Investment Promotion Subsidy for Medium Enterprises
Minimum direct employment 20 number for first INR 10 crore & additional 7 employment for every additional investment of INR 10 crore proportionately.</td><td colspan="2">a) Medium Enterprises
<table>
<tr><th>Zone</th><th>Turnover percentage</th><th>Maximum Period</th><th>VFA Limit</th></tr>
<tr><td>1</td><td rowspan="3">2.50%</td><td>6 years</td><td>40% of VFA</td></tr>
<tr><td>2</td><td>5 years</td><td>35% of VFA</td></tr>
<tr><td>3</td><td>5 years</td><td>35% of VFA</td></tr>
</table></td></tr>
</table>

Large and Mega Enterprises

- Customized incentive packages based on investment size, employment, and strategic importance

Type of Support	General Category	Special Category (SC / ST, Women, Minorities, Physically Challenged and ExServicemen Entrepreneurs)
Exemption from Stamp Duty for MSMEs	**Zone 1:** 100% **Zone 2:** 100% **Zone 3:** 75%	**Zone 1:** 100% **Zone 2:** 100% **Zone 3:** 100%
Concessional Registration Charges for MSMEs	All Zones: INR 1 /- per INR 1,000/	All Zones: INR 1 /- per INR 1,000/
Reimbursement of Land Conversion Fee for MSMEs	**Zone 1:** 100% **Zone 2:** 100% **Zone 3:** 75%	**Zone 1:** 100% **Zone 2:** 100% **Zone 3:** 100%
Exemption from Tax on Electricity Tariff for MSMEs	**Zone 1:** 100% for 7 years **Zone 2:** 100% for 6 years **Zone 3:** 100% for 4 years	**Zone 1 :** 100% for 8 years **Zone 2:** 100% for 7 years **Zone 3:** 100% for 5 years
Power Subsidy for Micro and Small enterprises	**For All Zones** Reimbursement of cost of power paid at INR 1.00/- per unit consumed for a period of 3 years.	
Interest Subsidy on Technology Up-gradation Loan	**Zone 1:** 5% for 6 years* **Zone 2:** 5% for 5 years* **Zone 3:** 5% for 5 years* On loans availed from KSFC and Scheduled Commercial Banks which are not covered under CLCSS of Government of India	**Zone 1:** 5% for 6 years* **Zone 2:** 5% for 5 years* **Zone 3:** 5% for 5 years* On loans availed from KSFC and Scheduled Commercial Banks which are not covered under CLCSS of Government of India

Incentives and Concessions for Large, Mega, Ultra Mega and Super Mega Enterprise:

Sl. No.	Incentive Head	Quantum
1	Capital Investment Subsidy	20% on Plant & Machinery; 20% on land up to an extent of 50 acres on actual procurement cost
2	Exemption of Stamp Duty	100%
3	Concessional Registration Charges	₹1 per ₹1,000
4	Reimbursement of Land Conversion Fee	100%
5	Production Linked Incentive (for new investments and expansions)	1.00% of annual turnover for a period of 5 years starting from the first year of commercial operations
6	Subsidy for setting up Effluent Treatment Plant (ETP)	50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of ₹250 lakh

Karnataka MSME Framework, 2022

Karnataka MSME Framework (2022) aims to:

- Promote inclusive industrialisation and regional balance by developing MSME clusters outside major metros.
- Facilitate access to markets, finance, technology, and technology adoption for MSMEs.
- Strengthen the competitiveness and innovation of MSMEs through infrastructure support, common facility centres, and digital platforms.
- Enhance ease of doing business by simplifying procedures and compliance.
- Support specific sub-groups such as women, SC/ST, or minority-owned enterprises through higher incentive ceilings.
- To attract investments worth INR 5 lakh crore

Incentives and Concessions for MSMEs

Karnataka provides a comprehensive MSME support framework, that include:

Industrial & Incentive Framework for MSMEs

- MSMEs receive capital investment subsidies and production-linked incentives based on location and category. For example: Micro, Small & Medium enterprises located in backward zones can receive up to 30%-35% subsidy on fixed assets depending on zone and special category status (women, SC/ST, minorities).
- Subsidy caps vary by zone, e.g., Zone 1 (most backward) offers higher incentives compared to Zone 3 (more developed districts).
- These incentives aim to encourage technology upgrades, infrastructure investment, machinery purchase and expansion of MSMEs.

Cluster Development & Common Facility Centres

Under state announcements (e.g., Karnataka Budget 2025), common facility centres are to be established under an MSME cluster development scheme to provide shared infrastructure, reduce costs, and strengthen competitiveness.

Ease of Doing Business & Regulatory Simplification

- Government announcements emphasize decriminalization of compliance and digitisation of employer and enterprise procedures to reduce fines and simplify MSME operations.
- Efforts such as single-window clearances and streamlined approvals help new enterprises set up more easily.

Market Access, Technology & Digital Platforms

- The state promotes vendor development programmes, public procurement support, and digital portals that facilitate market linkages for MSMEs.
- Technologies supporting sustainability, waste management, and circular economy practices are incentivized through capital subsidies and environmental infrastructure support.

Inclusive Support

MSME initiatives often include priority or enhanced benefits for women entrepreneurs, SC/ST entrepreneurs and others in special categories, with higher subsidy limits or additional support.

Karnataka Industrial Policy, 2025

Karnataka Industrial Policy (2025) aims to:

- Attract investments of ₹7.5 lakh crore into Karnataka's industrial sector by 2030.
- Generate 20 lakh new jobs across manufacturing, services, and allied sectors.
- Support 12 % annual manufacturing growth, strengthening Karnataka's economic competitiveness.
- Promote balanced regional industrial development, with targeted incentives for backward taluks and districts.
- Drive green and sustainable industrial practices, technological innovation, and inclusive growth.

Incentives and Concessions:

Flexible Financial Incentives

- Investors can choose between Capital Subsidy and Production-Linked Incentives (PLI) tailored to their growth model.
- Capital subsidy ranges from around 10% to 25% of fixed capital investment, depending on enterprise size and location.
- PLI incentives range from 1% to 2.5% of net sales turnover for up to seven years for eligible sectors, with caps up to 60% of fixed asset value.
- Additional support (extra 5% or 3%) is available for investments in most backward and more backward taluks based on state classifications.
- Companies that co-locate R&D/Global Capability Centres (GCCs) with manufacturing units receive about an extra 10% incentive.

Regional & Inclusive Development

- The state is divided into three incentive Zones:
  - Zone-1 & Zone-2: Backward districts/taluks with higher incentives.
  - Zone-3: Bengaluru Urban & Rural with differentiated incentives.
- 30 % of industrial land is reserved for MSMEs, and 24.1% for SC/ST entrepreneurs in industrial areas.
- Boosts inclusive industrial growth with support for women-led enterprises and enterprises creating higher female workforce participation.

Sectoral Focus & Emerging Technologies

- The policy prioritises a wide range of strategic sectors, including:
  - Aerospace & Defence
  - Electronics & Core Manufacturing
  - Warehousing & Logistics (granted industry status)
  - Textiles & Future Mobility
  - Biotechnology & Pharmaceuticals
  - Drones, MedTech, Space & AR/VR
  - Renewable Energy & Automobiles
  - FMCG & Tourism-linked industries

Infrastructure & Investment Zones

- Establishment of 12 new investment zones covering about 30,000 acres, with world-class connectivity and utilities.
- Allocation of resources for clean water, electricity, roads, and other basic infrastructure in industrial clusters.

Ease of Doing Business & Digitalisation

- Enhancement of the Single Window System (SWS) with digital real-time approvals and Affidavit-Based Clearances (ABC) to accelerate setup timelines.
- Digital monitoring tools for industrial land (e.g., GIS tracking) to streamline land allocation and compliance.

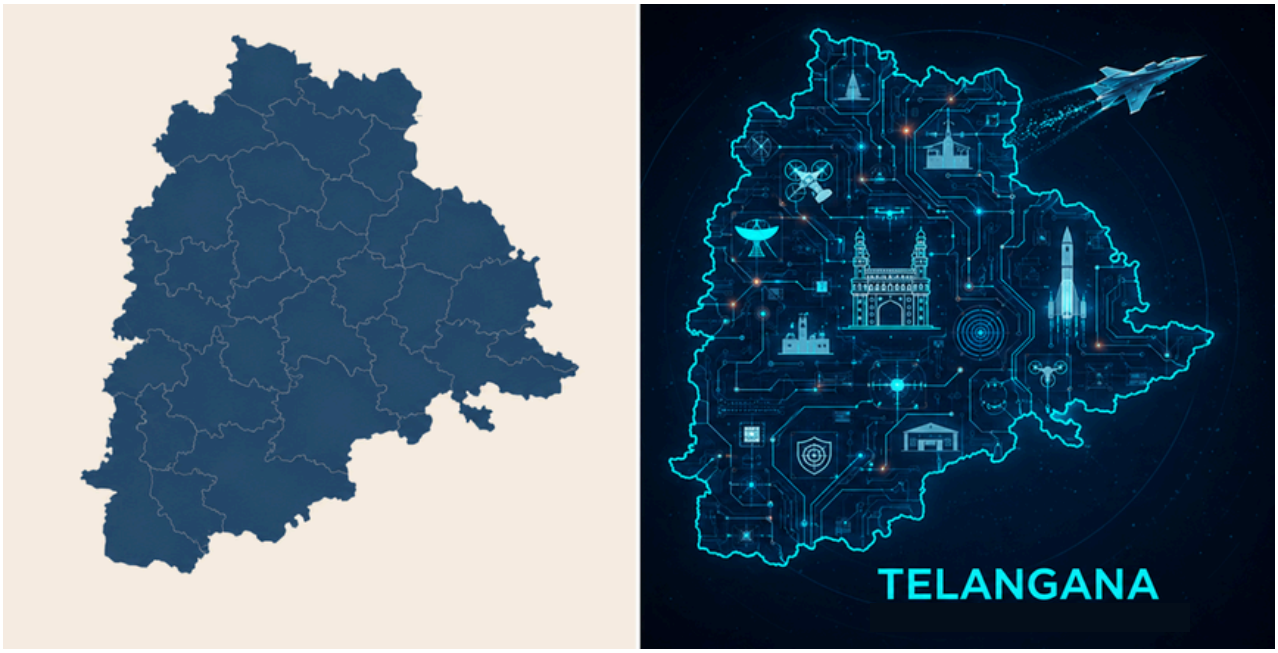
Human Capital & Skill Development

- Introduction of industry-aligned curricula in ITIs and polytechnic institutes to build a future-ready workforce.
- Industrial dormitories and worker accommodation facilities are incentivised with subsidies to support workforce migration and retention.

Sustainability & Green Growth

- Support for environmental sustainability practices (e.g., Zero Liquid Discharge, air pollution controls, energy efficiency) via one-time grants and additional PLI incentives.
- Incentives for Greenco-certified companies to encourage adoption of green industrial standards.

TELANGANA'S - AEROSPACE & DEFENCE



Telangana, strategically located in southern India, has rapidly emerged as one of the country's most dynamic industrial and technology-driven states. Backed by progressive governance, strong infrastructure, investor-friendly policies, and a thriving innovation ecosystem, the state has positioned itself as a key destination for aerospace, defence, electronics, and advanced manufacturing investments. Hyderabad serves as the nucleus of Telangana's aerospace and defence ecosystem and is widely recognized as one of India's leading centres for defence research, missile systems, avionics, precision engineering, and space technologies. The city hosts several premier defence and strategic establishments, including DRDO laboratories, Bharat Dynamics Limited (BDL), Mishra Dhatu Nigam (MIDHANI), Hindustan Aeronautics Limited (HAL) facilities, and numerous private aerospace and defence manufacturers. Telangana has also developed strong capabilities in missiles, radar systems, electronics warfare, UAVs, and advanced materials manufacturing. The Dassault–Tata partnership announced a Rafale fuselage manufacturing facility in Hyderabad, further strengthening Telangana's position as a major aerospace manufacturing hub within India's defence supply chain.

Dedicated aerospace and defence parks, electronics manufacturing clusters, pharma hubs, IT corridors, and extensive logistics infrastructure support the state's industrial ecosystem. Telangana's strengths in software, artificial intelligence, embedded systems, semiconductors, and electronics manufacturing create strong synergies for next-generation aerospace and defence technologies. Telangana contributes significantly to India's economy, with a Gross State Domestic Product (GSDP) estimated at over ₹16 lakh crore (US$ 190+ billion) in 2024–25. The state has consistently ranked among India's fastest-growing economies, supported by strong growth in manufacturing, information technology, pharmaceuticals, and services sectors. The state has emerged as a major destination for global investments, particularly in aerospace, defence electronics, data centres, life sciences, and technology sectors. Hyderabad alone hosts one of India's largest startup ecosystems and several Global Capability Centres (GCCs), strengthening the state's innovation-driven industrial landscape. Telangana's infrastructure backbone includes an extensive road network, dry ports, industrial corridors, and Rajiv Gandhi International Airport, one of India's leading cargo and passenger airports. The state also benefits from a reliable power supply, advanced industrial parks, and proactive industrial facilitation mechanisms that support rapid project execution.

The state's skilled workforce is supported by premier educational and research institutions including IIT Hyderabad, IIIT Hyderabad, NALSAR, BITS Pilani Hyderabad Campus, and numerous engineering and technical institutes, ensuring a continuous pipeline of talent for high-technology industries. With its strong defence manufacturing base, rapidly expanding industrial ecosystem, policy-driven growth strategy, and focus on innovation-led development, Telangana continues to strengthen its position as a leading hub for aerospace, defence production, electronics systems, UAV technologies, and advanced engineering in India.

FEW OTHER HIGHLIGHTS OF TELANGANA

- Telangana is one of India's leading aerospace and defence hubs, with Hyderabad contributing significantly to the country's missile systems, defence electronics, avionics, and precision engineering ecosystem.
- The state hosts over 1,000 MSMEs and industrial units supporting aerospace, defence, electronics, and precision manufacturing supply chains, alongside major DPSUs such as BDL and MIDHANI.
- Hyderabad is home to more than 10 major DRDO laboratories and strategic defence establishments, making it one of India's most important centres for defence R&D and advanced weapons systems development.
- Dassault Aviation and Tata Advanced Systems Limited (TASL) signed four Production Transfer Agreements to manufacture the entire Rafale fighter jet fuselage in Hyderabad, which marks the first time Rafale fuselages are being built completely outside of France
- Telangana has emerged as a strong centre for electronics manufacturing, semiconductors, AI, embedded systems, and software engineering, creating substantial synergies for next-generation aerospace and defence technologies.
- The state produces a large pool of skilled technical talent annually through premier institutions such as IIT Hyderabad, IIIT Hyderabad, BITS Pilani Hyderabad Campus, and hundreds of engineering and technical colleges.
- Telangana has developed dedicated Aerospace & Precision Engineering SEZs and industrial parks around Hyderabad, Adibatla, and Shamshabad, attracting leading global and domestic aerospace manufacturers.
- Hyderabad is among India's fastest-growing Global Capability Centre (GCC) hubs, hosting over 350 GCCs and major technology centres that strengthen engineering, design, and digital capabilities relevant to aerospace and defence.
- Telangana's strong industrial governance model, rapid approvals through TS-iPASS, and reliable infrastructure ecosystem continue to attract investments in aerospace manufacturing, UAVs, defence electronics, and advanced materials.



Telangana Industrial Policy, 2015

Telangana Industrial Policy (2015) aims to:

- Accelerate industrial investment and position Telangana as a preferred destination
- Ensure time-bound, transparent approvals through a statutory mechanism
- Promote inclusive industrialisation, especially for MSMEs and SC/ST entrepreneurs
- Reduce compliance burden via self-certification and minimal inspections
- Enable sector-focused industrial ecosystems and cluster development

Incentives and Concessions:

Regulatory & Governance Reforms (TS-iPASS)

- Time-bound approvals:
  - 15 days for mega projects
  - 30 days for other industries
- Deemed approval mechanism if approvals are not granted within stipulated timelines
- Self-certification system, reducing procedural bottlenecks
- Right to clearance backed by legislation (rare in India)
- Significant reduction in inspections, enabling a "trust-based" regulatory regime

Fiscal Incentives (via T-IDEA & T-PRIDE)

The policy provides a comprehensive incentive framework:

- Capital investment subsidies for new units
- Stamp duty reimbursement (up to 100%)
- Power cost reimbursement (per unit basis for manufacturing)
- Interest subsidies for MSMEs
- Tax-related reimbursements and incentives

Targeted Incentives:

- T-PRIDE: Additional benefits for SC/ST entrepreneurs
- Special incentives for women-led enterprises
- Enhanced support for MSMEs and first-generation entrepreneurs

Land & Infrastructure Support

- Creation of a large industrial land bank (about 1.5 lakh acres)
- Development of plug-and-play industrial infrastructure
- Ready-to-use industrial parks to reduce setup time

Key Cluster Developments:

- Hyderabad Pharma City (one of the largest pharma clusters globally)
- Kakatiya Mega Textile Park
- Electronics Manufacturing Clusters (EMC)

D) Sectoral Prioritisation

- The policy identifies high-growth sectors like Life sciences & pharmaceuticals, IT & electronics manufacturing, Aerospace & defence manufacturing, Food processing and Textiles & apparel

E) Skill Development & Institutional Support

- Industry-aligned skill development programs and Collaboration with training institutions to meet sector-specific needs
- Establishment of dedicated facilitation bodies for:
  - Investment promotion
  - Industrial approvals
  - Sector-specific support

Aerospace & Defence Ecosystem Development Framework (2016)

Telangana Aerospace & Defence Ecosystem Development Framework (2016) aims to:

- Position Telangana as a leading aerospace & defence manufacturing hub in India
- Attract global OEMs and Tier-1 suppliers
- Promote indigenisation and high-value manufacturing
- Generate high-skilled employment
- Strengthen integration into global aerospace supply chains

Salient Features & Incentives

Cluster-Based Development Model

- Development of Adibatla Aerospace SEZ/cluster near Hyderabad
- Establishment of Hardware Park and precision manufacturing zones

Land & Infrastructure Support

- Allocation of large land parcels for aerospace units
- Plug-and-play infrastructure for Precision manufacturing and Testing & assembly.
- Development of industrial corridors around Hyderabad

Ease of Doing Business (EoDB)

- Integration with Telangana State Industrial Project Approval and Self Certification System Act (TS-iPASS)
- Time-bound approvals (15-30 days)
- Investor facilitation through a single-window system

Institutional & Industry Support

- Collaboration with:
  - DRDO laboratories
  - Defence PSUs
  - Global aerospace companies
  - Promotion of public-private partnerships (PPP)

Skill Development & Talent Base

- Availability of highly skilled engineering workforce
- Proximity to Engineering institutions and Aerospace R&D centres

SpaceTech Framework, 2022

Telangana's SpaceTech Framework (2022) aims to:

- Establish Telangana as a global SpaceTech hub
- Promote private sector participation in space industry
- Develop capabilities across the entire space value chain
- Attract global investments and partnerships
- Enable the application of space technologies in governance and industry

Strategic Pillars

The framework is built around four core pillars:

Enabling Access to Infrastructure

- Facilitation of:
  - Testing facilities
  - Manufacturing infrastructure
  - Ground stations
- Support for:
  - Satellite development
  - Launch vehicle components

Addresses one of the biggest bottlenecks: access to space-grade infrastructure

B) Business Facilitation & Collaboration

- Single-window support for:
  - Approvals
  - Land allocation
  - Compliance
- Promotion of:
  - Industry-academia collaboration
  - Partnerships with national agencies

Aligns with Telangana's TS-iPASS-driven EoDB model

C) Skill Development & Talent Creation

- Development of specialised space-tech workforce
- Partnerships with:
  - Universities
  - Research institutions
- Focus areas:
  - Aerospace engineering
  - Satellite systems
  - Data analytics

D) Research, Innovation & Ecosystem Development

- Promotion of:
  - R&D centres
  - Space-tech startups
- Support for:
  - Innovation in upstream and downstream applications

Encourages deep-tech innovation ecosystem

Telangana MSME Policy, 2024

Telangana MSME Policy (2024) aims to:

- Strengthen MSMEs as key drivers of employment and economic growth
- Enable end-to-end support: ideation → establishment → growth → scaling
- Promote import substitution and export competitiveness
- Facilitate transition of:
- Self-Help Groups (SHGs) → MSMEs

Salient Features & Incentives

End-to-End MSME Support Ecosystem

- Comprehensive lifecycle support including:
  - Idea incubation
  - Business setup
  - Operational scaling
- Focus on:
  - Reducing entry barriers
  - Improving survivability of MSMEs

Financial & Institutional Support

- Creation of:
  - Corpus fund (around ₹300–500 crore) for skill and ecosystem development, ₹100 crore Yantram Fund for Technology updates.

- Continued support through:
  - Subsidies (via existing frameworks like T-IDEA)
  - 25% capital investment subsidy on fixed capital (up to ₹30 lakh)
  - Credit facilitation mechanisms
  - Additional 20% subsidy for women entrepreneurs, up to ₹10 lakh

Skill Development & Industry Alignment

- Upgradation of 65 ITIs into Advanced Technology Centres
- Investment of around ₹2,400 crore for skill infrastructure modernisation
- Establishment of:
  - Young India Skill University

D) Inclusion & Grassroots Enterprise Development

- Special focus on:
  - Women-led enterprises (SHGs)
  - Rural entrepreneurship
- Example:
  - Dedicated marketing infrastructure (e.g., SHG product hubs)

E) Market Access & Export Promotion

- Focus on:
  - Import substitution strategies
  - Strengthening export competitiveness
- Support for:
  - Branding
  - Market linkages

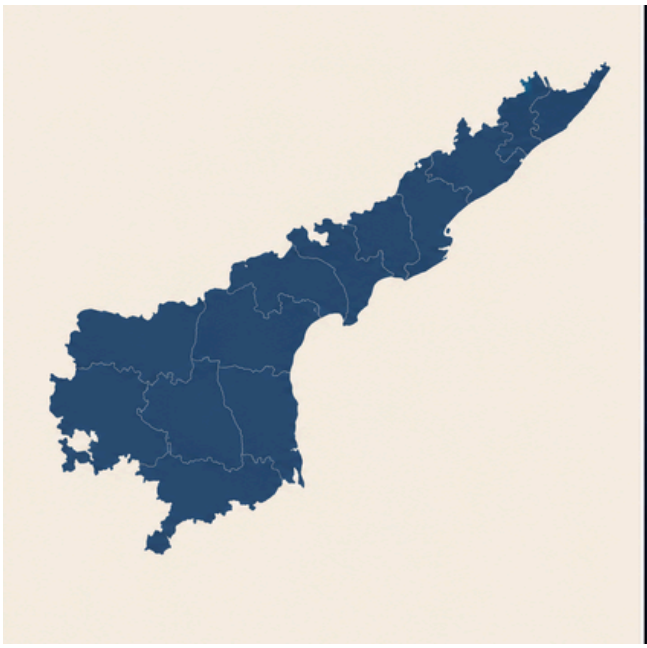
F) Infrastructure & Industrial Integration

- Integration with:
  - Industrial parks
  - Cluster development
- MSMEs positioned as:
  - Suppliers to large industries (anchor units)

G) Ease of Doing Business (EoDB) Support

- Integration with:
  - TS-iPASS system
- Benefits:
  - Faster approvals
  - Reduced compliance burden

ANDHRA PRADESH'S - AEROSPACE & DEFENCE





Andhra Pradesh, strategically located along India's eastern coastline, is emerging as a significant manufacturing and logistics hub with strong potential in aerospace, defence, shipbuilding, electronics, and advanced engineering. Supported by a long coastline, deep-water ports, industrial corridors, abundant land availability, and proactive industrial policies, the state is positioning itself as a preferred destination for large-scale industrial and strategic investments. The state's aerospace and defence ecosystem is anchored by its strengths in defence manufacturing, naval infrastructure, electronics, precision engineering, and space-related activities. Andhra Pradesh is home to key strategic assets such as the Naval Dockyard ecosystem in Visakhapatnam, Bharat Dynamics Limited (BDL) facilities, Hindustan Aeronautics Limited (HAL) operations, and several defence manufacturing and engineering enterprises. The state also benefits from its proximity to major missile testing and space infrastructure along India's eastern coast and is increasingly focusing on emerging and high-technology sectors, including the drone (UAV) sector.

Ranking as 5th in India in the number of factories and among the top 10 in terms of industrial output, Andhra Pradesh finds its prominent place among the leading industrialised states of India. Andhra Pradesh has developed strong industrial clusters across Visakhapatnam, Sri City, Tirupati, Anantapur, and Krishnapatnam, supported by industrial parks, electronics manufacturing clusters, logistics hubs, and export-oriented infrastructure. The state's strengths in electronics, heavy engineering, automotive components, renewable energy, and precision manufacturing provide strong synergies for aerospace and defence production. With a Gross State Domestic Product (GSDP) estimated at over ₹16 lakh crore (US$ 190+ billion) in 2024–25, Andhra Pradesh remains one of India's fastest-growing state economies. Manufacturing, logistics, pharmaceuticals, electronics, food processing, and services continue to be key contributors to economic growth. The state possesses one of the strongest logistics ecosystems in India, supported by a coastline of nearly 1,000 km, multiple operational ports, industrial corridors, and multimodal connectivity. Major ports such as Visakhapatnam, Krishnapatnam, Gangavaram, Kakinada, and Machilipatnam provide significant advantages for exports, defence manufacturing, and global supply chain integration.

Andhra Pradesh is also emerging as an important destination for electronics manufacturing and high-technology industries, with dedicated industrial parks and special economic zones attracting domestic and international investments. The state's investor-friendly policies and focus on ease of doing business continue to strengthen its competitiveness across strategic sectors.

The workforce is supported by premier institutions including IIT Tirupati, IISER Tirupati, Andhra University, SRM University-AP, VIT-AP University, and numerous engineering and technical colleges, ensuring a steady supply of skilled talent for advanced manufacturing and technology industries. With its strategic coastal location, strong industrial base, world-class port infrastructure, and growing manufacturing ecosystem, Andhra Pradesh is well positioned to emerge as a leading hub for aerospace, defence manufacturing, shipbuilding, electronics systems, MRO services, and next-generation industrial development in India.

FEW OTHER HIGHLIGHTS OF ANDHRA PRADESH

- Andhra Pradesh has a coastline of approximately 974 km, the second longest among Indian states, providing a strategic advantage for naval manufacturing, shipbuilding, logistics, and defence exports.
- The state hosts some of India's largest ports, including Visakhapatnam, Krishnapatnam, Gangavaram, and Kakinada, enabling seamless integration with global supply chains and defence logistics networks.
- Sri City, one of India's most successful integrated business cities, hosts over 220 companies from more than 30 countries, strengthening the state's manufacturing and export ecosystem.
- Andhra Pradesh has emerged as a major electronics manufacturing destination, attracting global firms in electronics, components, precision engineering, and industrial manufacturing.
- Visakhapatnam serves as the headquarters of the Eastern Naval Command, one of the Indian Navy's three major commands, significantly enhancing the state's strategic importance in India's defence landscape.
- The state offers large contiguous land parcels for industrial development, making it attractive for aerospace parks, defence manufacturing facilities, logistics hubs, and industrial corridors.
- Andhra Pradesh continues to rank among the leading states in Ease of Doing Business reforms, supported by investor-friendly policies, digital governance initiatives, and streamlined approvals.
- The state is developing strong capabilities in shipbuilding, defence electronics, renewable energy equipment, heavy engineering, and advanced manufacturing, creating long-term opportunities for aerospace and defence investors.



Andhra Pradesh Industrial Development Policy, 2024

Andhra Pradesh Industrial Development Policy (2024) aims to:

- Ensure continuity of industrial incentives and approvals
- Maintain investment momentum during policy transition
- Align upcoming policy direction with:
- Advanced manufacturing
- Export-led growth
- Employment generation
- Prepare groundwork for a next-generation, integrated industrial policy framework (4.0)

Salient Features & Incentives

Continuity of Incentive Frameworks

- Existing incentives under previous policies were extended/continued
- Support for:
  - Capital subsidies
  - SGST reimbursement
  - Power tariff concessions

Private MSME Parks/Flatted Factory Complexes

- Approved MSME Industrial Parks/Estates with a minimum extent of 25 acres of land and Standard Design Flatted Factory Complexes with a minimum area of 50,000 sq. ft. will get the following support package:
  - Reimbursement of 25% of infrastructure cost is limited to Rs.100 lakhs.
  - 100% reimbursement of stamp duty on the purchase of land meant for an Industrial Park.
  - 100% reimbursement of land conversion charges on purchase of land meant for the Industrial Park.
  - Reimbursement of 3% interest on Term Loan as subsidy limited to Rs.100 lakhs for a period of 3 years.
- The incentives will be processed only upon achieving 50% occupancy for 50% of the incentives and the balance 50% upon achieving 100% occupancy.

Project-Level Approvals & Facilitation

- Continued facilitation through AP Single Desk System (APSWIFT)
- Fast-tracking of Ongoing industrial proposals and Large investment projects

Sectoral Alignment

- Sector-Focused Strategy, Priority sectors include:
  - Electronics & ESDM
  - Food processing
  - Textiles & apparel
  - Pharmaceuticals & bulk drugs
  - Automotive & EVs
  - Aerospace & defence
  - Renewable energy & green hydrogen
- Emphasis on cluster-based industrial development and Integration with:
  - Visakhapatnam–Chennai Industrial Corridor (VCIC)
  - Chennai–Bengaluru Industrial Corridor (CBIC)

Preparation for Policy 4.0

- Stakeholder consultations with Industry players, Investors and Sector experts
- Identification of priority areas:
  - Advanced manufacturing
  - MSME ecosystem strengthening
  - Global value chain integration
- Promotion of Green manufacturing, Renewable energy integration and Circular economy practices

Andhra Pradesh MSME & Entrepreneur Development Policy (4.0), 2024

Andhra Pradesh MSME & Entrepreneur Development Policy (4.0) (2024) aims to:

- Strengthen the MSME ecosystem across sectors and regions
- Promote entrepreneurship and startup development
- Improve access to finance, technology, and markets
- Generate employment through MSME-led growth
- Enhance MSME participation in global value chains and exports

Salient Features & Incentives

Financial & Fiscal Support

- Capital subsidies for MSME units
- Interest subsidies on term loans
- SGST reimbursement for eligible enterprises
- Support for credit guarantee schemes

Market Access & Export Promotion

- Assistance for:
  - Participation in domestic and international trade fairs
  - Branding and marketing initiatives
- Integration with export promotion policies

Technology Upgradation & Innovation

- Incentives for:
  - Adoption of advanced technologies
  - Automation and digitalisation
- Support for:
  - R&D activities
- Industry-academia collaboration

Cluster Development Approach

- Promotion of:
  - MSME clusters and industrial estates
- Shared infrastructure:
  - Common facility centres
  - Testing and certification labs

Ease of Doing Business

- Approvals via AP Single Desk System (APSWIFT)
- Simplified compliance and regulatory processes
- Dedicated support mechanisms for MSMEs

Entrepreneurship Promotion

- Support for:
  - First-generation entrepreneurs
  - Women and youth-led enterprises
- Skill development and incubation support

Andhra Pradesh Aerospace & Defence Policy 2025

Andhra Pradesh Aerospace & Defence Policy (2025) aims to:

- Position Andhra Pradesh as a leading aerospace & defence manufacturing hub
- Attract large-scale domestic and global investments
- Build a robust supply chain ecosystem (OEMs, Tier I–III suppliers)
- Promote innovation, R&D, and technology transfer
- Generate high-skilled employment opportunities

Salient Features & Incentives

Investment Targets & Cluster Development

- Target to attract ₹50,000 crore – ₹1 lakh crore investments over 5 years
- Creation of ~1 lakh jobs in the sector
- Development of specialized clusters in:
  - Visakhapatnam
  - Kurnool (Orvakal)
  - Lepakshi
  - Tirupati
  - Donakonda

These clusters are designed to support manufacturing, MRO (Maintenance, Repair & Overhaul), and R&D ecosystems.

Comprehensive Fiscal Incentives

- Investment subsidies:
  - About 25-45% support for eligible projects
- 100% SGST reimbursement for up to 5 years
- Land cost rebates (up to 25% for anchor investors)
- Interest subsidies and employment-linked incentives

Support for MSMEs & Startups

- MSMEs eligible for incentives up to 75% of fixed capital investment (combined caps)
- Startup support includes:
  - Seed funding
  - Patent cost reimbursement
  - Accelerator and market access support
- Dedicated startup corpus (about ₹100 crore) to drive innovation

Technology Transfer & Innovation

- Technology transfer subsidy:
  - Up to 50% of acquisition cost (capped)
- Establishment of:
  - Centres of Excellence (CoEs)
  - Industry-academia collaboration platforms

Cluster-Based Ecosystem Development

- Hub-and-spoke model for:
  - Aerospace electronics
  - Unmanned systems (drones/UAVs)
  - Naval systems and shipbuilding
  - Missiles and ammunition
- Focus on integrated supply chains linking OEMs, suppliers, and startups

Ease of Doing Business & Mega Project Support

- Approvals via AP Single Desk System (APSWIFT)
- Tailor-made incentives for mega investments (>₹500 crore)



BUSINESS DEVELOPMENT TOOLKIT

The Indian aerospace and defence market presents immense opportunities, but success requires deep understanding of the procurement ecosystem, buyer personas, compliance requirements, and strategic market entry approaches. This toolkit provides practical frameworks for international companies seeking to establish successful operations in India's rapidly growing defence and aerospace sectors.

BUYER PERSONAS: KEY DECISION MAKERS AND INFLUENCERS

DPSU Procurement Managers

DPSU procurement managers represent the traditional backbone of India's defence acquisition system, operating within established Defence Public Sector Undertakings such as HAL, BEL, BDL, and BEML. These senior professionals typically possess engineering backgrounds in aerospace, electronics, or mechanical disciplines, coupled with 15-25 years of experience in defence manufacturing and supply chain management. Their decision-making authority ranges from about ₹10 crore to ₹500 crore depending on the DPSU's scale and complexity of requirements.

These procurement managers operate under stringent compliance frameworks established by the new Defence Procurement Manual 2025, which emphasizes indigenous content requirements and alignment with "Atmanirbhar Bharat" objectives. Their evaluation criteria prioritize technical compliance with Indian military standards such as JSS and DEF STAN, indigenous content percentage, offset contribution potential, and long-term supply chain reliability. Successful engagement requires comprehensive technical presentations demonstrating compliance with Indian defence standards, clear roadmaps for indigenization and local value addition, credible reference cases from successful DPSU partnerships, and active participation in major defence exhibitions like Aero India and DefExpo.

Private Defence Primes (Strategic Partners)

The emergence of qualified Strategic Partners has transformed India's defence procurement landscape, with companies like Tata, L&T, Mahindra, Reliance, and Bharat Forge leading major defence programs worth thousands of crores. Senior executives and procurement heads at these organizations typically combine MBA or engineering backgrounds with extensive global industry experience, managing complex partnerships that involve comprehensive technology transfer and joint development arrangements.

These decision-makers evaluate potential partners based on technology depth and willingness for comprehensive transfer, global market access and export partnership opportunities, financial stability and long-term commitment to India, ability to meet stringent delivery timelines and quality standards, and potential for co-development and intellectual property sharing arrangements.

Successful engagement strategies focus on executive-level relationship building through industry forums, detailed technology roadmaps and global supply chain integration plans, joint participation in international defence exhibitions, and structured technology demonstrations with pilot project proposals.

MRO Division Heads

MRO division heads operate in India's rapidly expanding maintenance, repair, and overhaul sector, which is valued at approximately US$2.5 billion in 2025 and projected to reach US$5.5–6.0 billion by 2032, growing at a robust 10–12% CAGR, significantly above the global average of 4–6%. These operations leaders at airlines, MRO service providers, and defence establishments possess technical backgrounds in aerospace engineering or aviation maintenance, with budget responsibilities ranging from ₹50 crore to ₹2,000 crore annually.

The growth trajectory is driven by India's fleet expansion, which crossed approximately 1,000 operational aircraft to a projected 2,200+ by 2042, creating sustained demand for sophisticated MRO capabilities. These professionals focus intensely on reducing aircraft turnaround time and maintenance costs while ensuring strict regulatory compliance with DGCA and EASA standards. Their decision criteria emphasize proven track records in aircraft and component maintenance, cost advantages compared to international MRO providers, quick response times and local spare parts availability, compliance with international aviation standards, and increasingly, digital maintenance solutions and predictive analytics capabilities.

Effective engagement involves technical workshops on advanced MRO technologies, comprehensive cost-benefit analysis demonstrating local MRO advantages, partnerships with airline operators for joint MRO facilities, and showcasing digital maintenance platforms and AI-driven solutions.

PARTNER READINESS CHECKLIST: CERTIFICATIONS, COMPLIANCE & OFFSET ELIGIBILITY

Essential Certifications

Quality Management Systems:

- ISO 9001:2015 (Quality Management)—mandatory for all defence suppliers
- AS9100 Rev D (Aerospace Quality Management)—Required for aerospace components
- ISO 14001 (Environmental Management)—increasingly required for major contracts
- OHSAS 18001/ISO 45001 (Occupational Health & Safety)—mandatory for manufacturing facilities

Defence-Specific Certifications:

- "Fit for Indian Military Use" Certificate—Issued by DGQA/DGAQA for products qualified through Indian military trials
- "Fit as per Vendor Specification" Certificate—For export-oriented products tested against vendor specifications
- DGAQA approval for aviation products and components
- BIS certification for electronics and electrical components

International Standards:

- NATO AQAP standards for allied interoperability requirements
- MIL-STD compliance for electronic and mechanical systems
- RTCA DO-178C for avionics software (critical for aerospace applications)

Regulatory Compliance Requirements

Industrial Licensing:

- Defence manufacturing license from the Department of Defence Production
- Foreign Direct Investment approval (if foreign shareholding exceeds 49%)
- Industrial licensing for specific product categories under the Arms Act, 1959

Security Clearances:

- Company security clearance from the Ministry of Defence
- Personnel security clearance for key technical staff
- Facility security compliance with Defence Security Manual guidelines

Export Compliance:

- Registration as a defence exporter with DDP
- Compliance with export control regulations (SCOMET list)
- End-user certificates for international defence sales

Offset Eligibility Criteria

Financial Thresholds:

- Applicable for defence contracts exceeding ₹2000 crore
- Offset obligation typically 30% of contract value
- Must be discharged within contract timeline (typically 7-10 years)

Eligible Offset Activities:

- Direct purchase from Indian manufacturers (most preferred)
- Investment in Indian defence/aerospace manufacturing facilities
- Technology transfer to Indian companies
- Export facilitation for Indian defence products
- Research & Development collaboration with Indian institutions

Partner Qualification:

- Indian partner must be registered with the appropriate regulatory authorities
- Minimum technical competence and manufacturing capability
- Financial stability with audited accounts for the past 3 years
- Track record in the relevant technology domain

MARKET ENTRY PLAYBOOK: 180-DAY ACTION PLAN

Days 1-60: In-depth Market Analysis & Strategic Partner Identification

The first two months focus on a thorough **market assessment** to understand detailed industry trends, procurement cycles, regulatory frameworks, and competitive positioning. This includes mapping key government agencies, Defence Public Sector Undertakings (DPSUs), private strategic partners, and Maintenance, Repair & Overhaul (MRO) players relevant to your products.

Parallel to research, initiate **engagements with prospective strategic partners and vendors** by conducting exploratory conversations, assessing their capabilities, and alignment with technology and investment goals. This phase should also involve consultations with legal and compliance experts to analyze industrial licensing, foreign direct investment (FDI) policies, offset guidelines, and quality certification requirements.

Days 61-120: Regulatory Compliance Initiation & Partnership Formalization

Once preliminary partners and market insights are identified, the focus shifts to formalizing collaborations and initiating regulatory processes. This phase includes preparing and submitting applications for **Defence Industrial Licenses**, factory registration, company security clearances, and other mandatory certifications like ISO 9001, AS9100, and ISO 27001.

Collaborate closely with Indian partners to start **vendor approval processes** for DPSUs and the Ministry of Defence, including alignment on indigenous content and offset compliance. Facility selection and initial design planning should begin during this period for upcoming manufacturing or service facilities. Begin workforce training programs in collaboration with educational institutions aligned with industry needs.

Days 121-180: Facility Setup, Pilot Operations & Go-To-Market Launch

During the final two months of the 180-day plan, focus on **operational readiness** including facility setup, equipment installation, and workforce onboarding. Complete necessary quality and security certifications and finalize technology transfer arrangements if applicable.

Launch **pilot projects or limited production runs** to demonstrate capabilities to prospective customers and obtain feedback. Participate actively in relevant defence and aerospace exhibitions or government forums to showcase your presence and offerings.

Success Metrics

Quantitative Targets:

- Establish relationships with 5+ qualified potential customers
- Complete 3+ technical presentations to DPSU/private sector buyers
- Initiate discussions with 2+ strategic partners for collaboration
- Achieve 70%+ completion of critical certification processes

Qualitative Milestones:

- Clear understanding of competitive landscape and market dynamics
- Established credibility with key stakeholders in target segments
- Defined path to market through partnerships or direct sales
- Comprehensive compliance framework for sustained operations



RISK, ETHICS & OPERATIONAL RESILIENCE



Maintaining high standards of integrity, cybersecurity, and operational resilience is central to sustaining India's ambitions as a globally competitive aerospace and defence manufacturing hub. The government and industry stakeholders have instituted strong frameworks to mitigate corruption risks, safeguard sensitive information, and manage complex supply-chain challenges inherent in the sector.

INTEGRITY PACTS AND ANTI-CORRUPTION NORMS IN DEFENCE PROCUREMENT

India has adopted **Integrity Pacts (IPs)** as a robust anti-corruption instrument specifically tailored to defence procurements. These pacts are pre-contract agreements between the government buying agency and all bidders to abstain from bribery, collusion, and other corrupt practices across the entire procurement lifecycle. The aim is to ensure transparency, equity, and competitiveness in defence contracting.

The **Central Vigilance Commission (CVC)** is the nodal authority overseeing Integrity Pact implementation in India. In defence procurements, IPs have been mandatory since the Defence Procurement Procedure (DPP) 2006 introduced this provision to combat corruption scandals of the past. The 2025 Defence Procurement Manual continues to enforce IP compliance with strengthened provisions authorizing Independent External Monitors (IEMs) who review and investigate any reported violations. Breaches of IP terms have led to stringent actions, including contract cancellations and blacklisting of violators.

By institutionalizing IPs, India has leveraged public oversight and civil society participation to drastically reduce opportunities for corrupt practices. Transparency International reports that most Indian organizations implementing Integrity Pacts observe significant improvements in procurement process fairness and reliability. High-profile cases involving foreign bidders violating IPs reaffirm the credibility and seriousness of this framework.

CYBERSECURITY & ISO 27001 ALIGNMENT FOR SUPPLIERS

Given the strategic nature of aerospace and defence technologies, cybersecurity is a critical aspect of operational resilience. Suppliers and manufacturers are required to comply with international standards and government-mandated cybersecurity protocols to safeguard sensitive design, production, and operational data.

ISO/IEC 27001, the international standard for information security management, has become a de facto requirement for suppliers engaged with Indian aerospace and defence projects. Certification to ISO 27001 ensures robust governance of information assets, risk management practices, and controls to prevent cyber intrusions, data leaks, and sabotage.

Indian defence authorities recommend or mandate ISO 27001 certification, especially for companies participating in technology transfer, R&D collaboration, and supply of critical components. As cyber threats evolve, adherence to these security standards not only protects national security interests but also builds trust in vendors' capabilities during complex multi-stakeholder defence projects.

SUPPLY-CHAIN RISKS: LONG-LEAD AEROSPACE ITEMS AND OBSOLESCENCE

India's aerospace and defence supply chain faces unique challenges associated with complex, long-lead-time manufacturing processes and rapid technology evolution:

- **Long-Lead Aerospace Items:** Critical parts such as aero engines, avionics suites, airframes, and missiles often have lead times of several years due to their technical complexity, stringent certification norms, and integration requirements. Disruptions in supply lead to program delays and cost overruns. India mitigates these risks by diversifying supplier bases, investing in indigenous production capabilities, and fostering strategic partnerships focused on local manufacturing.
- **Obsolescence Management:** Given the long lifespans of defence platforms (often decades), managing obsolescence of electronic components, software, and materials is vital for operational readiness. Indian manufacturers implement proactive obsolescence tracking, alternate sourcing strategies, and software maintenance protocols to sustain legacy systems while enabling modernization.
- **Supplier Ecosystem Resilience:** India is actively developing a tiered supplier ecosystem that includes MSMEs and startups capable of rapid innovation and smaller batch manufacturing, increasing supply chain resilience. Build-to-print manufacturing and contract manufacturing arrangements also enable flexible capacity scaling and reduce capital risks.
- **Quality and Compliance Risks:** Aerospace supply chains demand flawless quality management and adherence to international certifications (AS9100, NADCAP). Non-compliance or lapses can result in costly recalls, certification suspensions, and loss of export opportunities. Indian industry is increasingly adopting these frameworks supported by government schemes and industry bodies.



ACTION PATHWAYS & TIMELINES

This checklist ensures disciplined progress through market entry, operational setup, and growth phases, enabling companies to capitalize on India's strategic aerospace and defence transformation with clarity and foresight.

SHORT-TERM (FIRST 180 DAYS): MARKET SCAN, PARTNER IDENTIFICATION & REGULATORY COMPLIANCE

- The initial six months are critical for a deep market scan and strategic groundwork. Companies should conduct extensive market research, mapping sector trends, procurement cycles, and competitor positioning. This phase involves identifying and vetting local partners, key suppliers, and channel partners, as well as establishing initial dialogues and exploratory collaboration plans.
- Concurrently, initiate comprehensive regulatory compliance procedures. This includes securing industrial licenses, foreign direct investment (FDI) approvals, offset eligibility, as well as applying for mandatory certifications related to quality, security, and export control. Legal and compliance consults are essential at this stage to address evolving requirements and avoid strategic missteps. Facility site reviews, early-stage workforce planning, and introductory engagement with relevant government and DPSU officials should be started within this window.

MID-TERM (12–18 MONTHS): FACILITY SETUP, VENDOR APPROVALS & LICENSING

- Finalize selection and formalize agreements with local manufacturing and technology partners (joint ventures, subcontractors)
- Complete establishment of manufacturing/service facilities including site acquisition, workforce hiring and training, and equipment procurement
- Pursue vendor approvals and registrations with DPSUs, Ministry of Defence, and private strategic partners, ensuring compliance with quality and indigenous content benchmarks
- Implement ISO/AS/QMS certifications, cybersecurity (ISO 27001), and environmental & safety compliance programs at operational facilities
- Secure all required industrial, environmental, and export licenses for manufacturing and technology usage
- Develop local supply chain network incorporating MSMEs to meet offset and indigenization requirements
- Launch pilot manufacturing runs or service delivery with quality audits and customer feedback loops

LONG-TERM (3–5 YEARS): SCALING LOCALIZATION, EXPORT GROWTH & R&D INTEGRATION

- Achieve targeted indigenous content (IC) levels in products, progressively localizing design, manufacturing, and assembly processes
- Optimize production operations for cost competitiveness and quality excellence to qualify for long-term defence contracts
- Expand into export market development including certifications, participation in global defence exhibitions, and collaborating on international offset deals
- Deepen R&D partnerships with DRDO, academic institutions, and innovation clusters for joint development of next-generation aerospace and defence technologies
- Establish Centers of Excellence or Innovation Hubs focused on advanced technologies such as AI, quantum sensing, hypersonics, and directed energy weapons
- Implement advanced manufacturing practices like Industry 4.0, digital twins, and predictive analytics to enhance productivity and reliability
- Continuously monitor and upgrade compliance and governance frameworks to meet evolving government policies and international standards

LEGAL AND REGULATORY FRAMEWORK FOR DEFENCE PROCUREMENT

POLICY	MINISTRY OF DEFENCE	ALL DEFENCE AND SECURITY RELATED MATTERS
Legislations & Procedures	INDUSTRIES (DEVELOPMENT AND REGULATION) ACT, 1951	Governs industrial licensing for manufacture of Defence Items
	DEFENCE AQUISITION PROCEDURE, 2020	Governs procedure for capital acquisitions in the Defence sector
	FOREIGN DIRECT INVESTMENT POLICY & REGULATIONS UNDER FOREIGN EXCHANGE MANAGEMENT ACT,1999 (FEMA)	Governs policy on foreign direct investment and regulations on foreign exchange.
	OTHER ACTS - INDIAN ARMY ACT, 1950; INDIAN AIR FORCE ACT, 1950; INDIAN NAVY ACT, 1957	Statutory provisions and supplementary rules concerning government, regulation, administration, enrolment and discipline of the Army, Air Force and Navy.
Regulators & Agencies	DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION, MINISTRY OF COMMERCE & INDUSTRY (DIPP)	Formulation and implementation of industrial policy, including the relevant FDI policies from time to time.
	DEPARTMENT OF DEFENCE PRODUCTION, MINISTRY OF DEFENCE	The primary agency dealing with the production of Defence equipment in India.
	DEFENCE ACQUISITION COUNCIL, MINISTRY OF DEFENCE	Responsible for the purchases to be made for the Indian defence forces.
	DEFENCE OFFSETS MANAGEMENT WING, MINISTRY OF DEFENCE	Reviews the post contract status of all the offset agreements entered into by IOPs.

DEFENCE ACQUISITION PROCEDURE 2020

The Defence Procurement Procedure (DPP) (Renamed Defence Acquisition Procedure - DAP in 2020) is a set of guidelines approved by the Defence Acquisition Council (DAC) that govern capital procurements in terms of Defence equipment, manufacturing capabilities, and technology. It provides a framework and criteria for the allotment of Defence contracts. The first DPP was formulated in 1992 but came into effect only in 2002. Since then, it has been revised in 2005, 2006, 2008, 2009, 2011, 2013, 2016, and 2020. A draft DAP 2026 has been circulated, shifting emphasis toward indigenous technology ownership ('Owned by India')

DAP 2020 focuses on simplifying the Defence acquisition procedure and institutionalizing a monitoring mechanism with concurrent actions using digital technologies & database for the selection of the best equipment in a transparent and competitive manner, giving adequate opportunities to capable vendors. Make in India initiative of the Government of India focuses on increasing participation of Indian Vendors, including MSMEs, and therefore, the "Make" procedure has been further refined in DAP 2020 to make it more objective and time-bound, with a focus on Indian industry, especially MSMEs. Cutting down permissible timeframes for various activities and institutionalizing robust mechanisms to monitor for probity at various stages of the acquisition process are the attributes of this DAP.

KEY FEATURES OF THE DAP 2020

DAP 2020, a product of extensive analysis, deliberations, interactions and focused formulations, aims to further 'Self Reliance' of the country in the Defence sector and implement 'Ease of Doing Business' with emphasis on Simplification, Delegation, Reduced Timelines and making the process as Industry friendly as possible. The following chapters have been introduced in DAP 2020,

- **Chapter IV** - Procedure for Acquisition of systems designed and developed by
- DRDO/DPSU/OFB
- **Chapter VIII** - Acquisition of Systems Products and ICT Systems
- **Chapter IX** - Leasing
- **Chapter X** - Other Capital Procurement Procedure
- **Chapter XI** - Post Contract Management
- **Chapter III** - Addition of Innovation category

EASE OF DOING BUSINESS

One of the key focus areas of the review was to implement 'Ease of Doing Business' with emphasis on simplification, delegation, and making the process industry-friendly with certain specific provisions incorporated:

a. Procedural Changes

Single stage accord of AoN in all cases upto Rs 500 crores has been instituted thereby reducing time FTP cases, post accord of AoN, will be progressed as per delegated powers thereby reducing the procurement cycle considerably In Planning Process, LTIPP has been re-designated as Integrated Capability Development Plan (ICDP) covering planning period of 10 years instead of 15 years.

b. Request for Proposal (RFP) and Standard Contract Document (SCD)

Certain measures to provide clarity and alignment of requirements and also enabling provisions have been incorporated in the RFP and SCD in terms of Flow Chart driven guidelines, provision of in-storage preservation and termination of contracts in cases where projects are not progressing as per pre-defined milestones.

SALIENT FEATURES OF DAP 2020

Reservation in Categories for Indian Vendors

The categories of Buy (Indian-IDDM), Make I, Make II, Production Agency in Design & Development, OFB/DPSU and SP model will be exclusively reserved for Indian Vendors meeting the criteria of Ownership and Control by resident Indian Citizens with FDI not more than 49%. This reservation will provide exclusivity in participation to domestic Indian industry.

Enhancement of Indigenous Content

a. Overall Enhancement in Indigenous Content (IC) b. **IC Verification -** A simple and practical verification process has been instituted and IC will now be calculated on 'Base Contract Price' i.e. Total Contract Price less taxes & duties c. **Indigenous Military Material -** Promoting use of indigenous military material with provisions for examination of platforms and other equipment/ systems and reward for vendors for using indigenous raw material d. **Indigenous Software -** Provision for exploring options for operating base applications like Fire Control System, Radars, Encryption, Communications etc on indigenous software in Buy (Indian- IDDM) & Buy (Indian) cases has been included.

Modernisation Budget of the Armed Forces

CATEGORY	DPP 2016	DAP 2020
Buy (Indian-IDDM)	Min 40%	Min 50%
Buy (Indian)	Min 40%	Indigenous design - Min 50%, otherwise - Min 60%
Buy & Make (Indian)	Min 50% of Make	Min 50% of Make
Buy (Global – Manufacturing in India)	-	Min 50%
Buy (Global)	-	Min 30% for Indian vendors

RATIONALISATION OF TRIAL AND TESTING PROCEDURES

Testing equipment based on its employability and for other conditions, appropriate certifications confirming functional effectiveness may be obtained Scope of Trials will be restricted to physical evaluation of core operational parameters, other parameters may be evaluated based on vendor certification, certification by accredited laboratories, computer simulations of parameters Avoid duplication of trials and waiver will be granted based on Certificates of Conformance. Ensure simultaneity of various Trials and wherever feasible, entire Trials be conducted by a Combine Trial Team in order to save time

Requisite opportunity will be afforded to participating vendors to rectify shortcomings/faults during the Trials, with permission to carry out repairs. Request For Proposal will apprise vendors to submit a draft Acceptance Test Procedure (ATP), to be finalized by the QA agency during Technical Trials itself. Sample size for destructive tests, including the aspect of cost to be borne by the seller, will be stated upfront in the RFP for the vendor. No repetition of inspections will be done, especially during the acceptance of equipment. Third-party inspections will also be carried out.

MAKE & INNOVATION

Make I (Government Funded upto 70%). Laying down a cap of Rs 250 crore/DA and selection of DAs based on bidding criteria **Make II** (Industry Funded) for production of indigenously designed & developed weapons/equipment/systems/platforms along with sub components/assemblies **Make III** (Indigenously Manufactured) category for manufacture of equipment/platforms or spares/assemblies/sub-assemblies for enabling import substitution Procurement of prototypes developed through 'Innovation' under various initiatives like iDEX, Technology Development Fund and Internal Services Organizations has been facilitated.

DESIGN & DEVELOPMENT

A separate dedicated chapter has been incorporated in the DAP 2020 for acquisition of systems designed and developed by DRDO/DPSUs/OFB. A simplified procedure with Integrated Single Stage Trials to reduce timelines and laying greater emphasis on evaluation through certification and simulation has been incorporated. Aspects of Spiral Development have been incorporated as well.

ADDRESS VOIDS

Certain existing voids have been addressed in the form of new Chapters as under,

Information Communication Technology - Peculiar issues related to procurement of ICT-intensive equipment, especially of Interoperability & Built-in Upgradability, enhanced security requirements, and change management have been included.

Leasing - A new category introduced to enable the operation of assets without owning them, substituting huge initial capital outlays

Post Contract Management - To formalise procedures post signing of contract with respect to inspections, levying of Liquidity Damages, Contract Amendments, etc

Other Capital Procurement Procedure - A new procedure has been included as a new chapter in DAP and structured as an enabling provision for Services to procure essential items through the Capital Budget under a simplified procedure in a time-bound manner.

INDUSTRY FRIENDLY COMMERCIAL TERMS

- The Price Variation Clause has been incorporated for large and protracted contracts in order to avert inflated initial quotes by vendors and arrive at a realistic price for the project.
- Payments to Vendors—Suitable provisions like parallel processing of documents by SHQ/PCDA through digital verification, within laid-down timelines, have been included to ensure timely payment to vendors. Payments to Indian industry have been aligned with foreign industry.

Some of the major highlights of the DAP considered favorable are,

- Focuses on technology in offsets, discarding traditional build-to-print or contract manufacturing
- Higher multipliers for technology transfers in offsets.
- Introduction of third-party valuations and removal of restrictions on sub-tier discharge of offsets, as well as percentage discharge on particular avenues. All avenues are equally good.
- Importance given to design and development from the planning stage through execution.
- New concepts in terms of long-term product support, leasing, and price variation clause
- Introduction of AI, Military Materials, Indigenous software, Aero Engines, and FAB
- The term of DPP is fixed, so one knows the duration of effect.
- Timeframes— Reduction in implementation timeframes is encouraging.
- Make II, Make III, and iDEX categories for more open competition.
- Clarity in Indigenous Content—Very clear and positive, and also an increase in percentages of IC in various categories of procurement.



FDI POLICY

FDIpolicyapplies to any organization that is looking for establishment of branch office, liaison office or project office or any other place of business in India. If the principal business of the applicant is Defence, approval of Reserve Bank of India is not required in cases where Government approval or license/permission by the concerned Ministry/ Regulator has already been granted. The latest release in August 2020 of the FDI policy allows the following investment in Defence sector,

- 74% is automatic approval
- 75 -100 % allowed with Government approval.

Other Conditions as per the most recent press note are as follows:

- Infusion of fresh foreign investment within the permitted automatic route level, in a company not seeking industrial license, resulting in change in the ownership pattern or transfer of stake by existing investor to new foreign investor, will require Government approval.
- License applications will be considered and licenses given by the Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, in consultation with the Ministry of Defence and the Ministry of External Affairs
- Foreign investment in the sector is subject to security clearance and guidelines of the MoD
- Investee company should be structured to be self-sufficient in areas of product design and development. The investee/joint venturecompany,y along with manufacturing facility should also have maintenance and life cycle support facility of the product being manufactured in India.

Key enablers of the FDI policy

- 100% FDI in the defence sector: FDI to 74% under the automatic route
- Requirement of single largest Indian ownership of 51% of equity is removed.
- 3 years of lock-in period for equity transfer has been abolished.

FDI in Defence sector is also subject to industrial license under the Industries (Development & Regulation) Act 1951.

EXPORT POLICY

The Export policy in India for the manufacturing and exporting of components and equipment of critical Defence platforms categorized as dual-use items and technologies, are either completely prohibited or permitted under license only. Such dual use items, with the nomenclature of SCOMET (Special Chemicals, Organisms, Materials, Equipment and Technologies), as per the Foreign Trade Policy, are assigned specific codes called the ITC – HS Code (Indian Trade Clarification – Harmonised System Code). The products that are under the compulsory licensing regime are mentioned in Chapter 88 (all Aerospace related products), and Chapter 93 (arms and ammunition) and ITC HS code of 8710 also covers Armored vehicles.

Criteria to Qualify for the Issue of License:

The export license applications are scrutinized and issued on case-to-case basis, after thorough evaluation, considering the following factors, as per its categorization under the SCOMET list:

- End-user credentials, credibility of declarations of end-use of the item or technology, integrity of chain of transmission of item from supplier to end user, and the potential of item or technology, including timing of its export, to contribute to end users that are not in conformity with India's national security or foreign policy goals and objectives, objectives of global non-proliferation, or its obligations under treaties to which it is a State party
- Assessed risk that exported items will fall into hands of terrorists, terrorist groups, and non-State actors
- Export control measures instituted by recipient State
- Assessment of end-uses of item(s)
- Applicability to an export license application of relevant bilateral or multilateral agreements to which India is a party
- The item will be used only for the stated purpose and that such use will not be changed, nor items modified or replicated without consent of Government of India
- Neither the items nor replicas nor derivatives thereof will be re-transferred without consent of Government of India End-user shall facilitate such verifications as are required by Government of India. Government of India may also require additional formal assurances, as appropriate, including on end-use and non-retransfer, from State of recipient.

OFFSETS POLICY

In the Defence industry, the foreign manufacturer of the Defence equipment offsets the nation's costs of acquiring Defence equipment by various avenues, including purchasing or agreeing to purchase products from domestic vendors, making an investment in the Defence sector or transferring technology, amongst others. Offsets policy essentially means benefits that a buyer gets from the seller in the form of technology that leads to building capability or capacity locally. The purpose of an offset obligation is to ensure that a part of government spending on the capital acquisition of defense products is repatriated into the country and, if possible, specifically to its defense sector.

As per the extant provision of the policy, a 30% offset applies to all capital acquisitions categorized as 'Buy (Global)', i.e., outright purchase from a foreign/Indian vendor, or 'Buy and Make' categories of procurements where the estimated cost of the acquisition proposal is Rs. 2000 Crore or more as on the date of accord of AoN.

30% of the estimated cost of the acquisition in 'Buy (Global)' category acquisitions and 30% of the foreign exchange component in 'Buy and Make' categories of procurements will be the required value of the offset obligations. MoD released the revised version of the Defence Acquisition Procedure (DAP) 2020 in Sep 2020. Here we would like to highlight the changes in the Defence Offset guidelines.

AVENUES OF DISCHARGE

Changes to the Avenues of Discharge for offset obligations are highlighted in the table below

CLAUSE	AVENUES OF DISCHARGE	
	DPP 2016	DAP 2020
3.1.a	Direct Purchase Export Orders	Direct Purchase Export Orders
3.1.b	FDI in Joint Ventures	Investment in Defence Manufacturing
3.1.c	Investment in 'Kind' (private industry)	Investment in ToT (private industry)
3.1.d	Investment in ToT (private industry)	Acquisition of tech through ToT to Government institutions
3.1.e	Acquisition of tech or equipment through ToT to Govt institutions	Technology Acquisition by DRDO
3.1.f	Technology Acquisition by DRDO	-

Investment in 'kind' to the Indian private industry has been removed as an avenue for offset discharge. Details of each avenue of discharge are as follows:

3.1.a : Direct Purchase or Export orders

- For eligible products manufactured or services
- Through Indian enterprises

3.1.b : Investment in Defence Manufacturing

- FDI, or direct investment, JVs, or through the non-equity route
- For co-production, co-development, and production or licensed production of eligible defence products
- As per guidelines of DPIIT / MHA

3.1.c : Investment in ToT (private industry)

- Through Indian enterprises for manufacture of eligible products
- Must cover all documentation, training and consultancy required for full
- ToT (civil infrastructure and related equipment is excluded). ToT should be provided without license fee and there should be no restriction on domestic production, sale or export.

3.1.d : Acquisition of tech through ToT to Government institutions

- Through Government institutions and establishments engaged in the manufacture and/or maintenance of eligible products.
- Includes augmenting capacity for Research, Design and Development, Training and Education but excludes civil infrastructure and related equipment.

3.1.e : Technology Acquisition by DRDO

- In areas of critical technology

The following Mandatory Offsets clause has been removed from DAP 2020

- A minimum of 70% of the offset obligation must be discharged by any one or a combination of Paras 3.1(a), (b), and (c).
- Where the discharge of offset obligations is proposed in terms of Para 3.1(c), the vendor will be required to buy back a minimum of 40% of the eligible product and/or service (by value) within the permissible period for discharge of offset obligations.

Eligible Products

For discharge through Indian companies under clause 3.1.a, 3.1.b and 3.1.c, the following products/services have been removed from list of eligible products.

- Specialized equipment for military training or for simulating military scenarios
- Miscellaneous equipment and materials designed for military applications, specially designed environmental test facilities, and equipment for the certification, qualification, testing or production of the above products
- Software specially designed or modified for the development, production or use of eligible products
- High-velocity kinetic energy weapon systems and related equipment
- Civil Aerospace
- Products Services (Related to Eligible Products) including Engineering, design and testing, and software development.

Technologies eligible for ToT under clause 3.1.d to DPSUs has been introduced in DAP 2020.

Critical technologies for ToT under clause 3.1.e to DRDO has been updated in DAP 2020.



LOOKING FORWARD

TRANSFORMATIVE POLICY REFORMS SETTING THE COURSE

India's aerospace and defence sector stands at an extraordinary juncture, propelled by comprehensive policy reforms that are reshaping the industry's future trajectory. The newly launched Defence Procurement Manual (DPM) 2025 represents a paradigm shift in acquisition processes, governing approximately ₹1 lakh crore in annual revenue procurement. This landmark reform eliminates bureaucratic bottlenecks by removing No Objection Certificate requirements from DPSUs, creating a truly competitive environment where private and public sector entities compete on equal footing.

The ongoing Defence Reform 2.0 initiative promises even more dramatic changes, with the Defence Acquisition Procedure undergoing a comprehensive overhaul to reduce procurement timelines by 50%. This reform introduces single-vendor contract provisions and innovation-based procurement models, enabling rapid induction of cutting-edge technologies that meet operational requirements rather than traditional bureaucratic processes.

FLAGSHIP PROGRAMS DRIVING INDUSTRIAL TRANSFORMATION

Advanced Medium Combat Aircraft (AMCA): The Crown Jewel

The AMCA program represents India's largest-ever military R&D initiative, with ₹15,000 crore allocated for prototype development alone. The Ministry of Defence issued the RFP (May 2026) to three shortlisted consortia — Tata Advanced Systems (independently), Larsen & Toubro with BEL, and Bharat Forge with BEML. HAL was not shortlisted for the prototype phase (it may still compete for series production). Five flying prototypes are planned, with the first flight targeted around 2032. The AMCA will establish India among the top 5 nations globally to field indigenous fifth-generation fighters. The program's total value, including initial orders for 120 aircraft and projected production of several hundred units, positions it as one of India's most valuable defence contracts, running into lakhs of crores.

C-295 Manufacturing Ecosystem

The Tata-Airbus C-295 program has created India's first comprehensive private-sector aerospace ecosystem, with 40 of 56 aircraft to be manufactured domestically. This initiative involves over 60% local content across 30,000 components, engaging more than two dozen MSME suppliers in a complete lifecycle manufacturing approach encompassing assembly, testing, qualification, and maintenance.

STRATEGIC TECHNOLOGY DEVELOPMENT INITIATIVES

ADITI Scheme: Critical Technology Acceleration

The ₹750 crore ADITI (Acing Development of Innovative Technologies with iDEX) scheme focuses on critical and strategic technologies, including satellite communication, artificial intelligence, quantum technologies, autonomous weapons, and advanced cyber capabilities. With grants up to ₹25 crore for innovators, this initiative addresses capability gaps in next-generation military technologies.

iDEX Ecosystem Expansion

The Innovation for Defence Excellence (iDEX) program has already cleared procurement worth ₹2,400 crore from startups and MSMEs, with additional projects worth ₹1,500 crore approved for development. 676 start-ups/MSMEs/Innovators join defence innovation ecosystem through iDEX, 58 prototypes worth Rs 3,853 crore receive procurement clearance, and 45 procurement contracts are signed valued at Rs 2,326 crore. This ecosystem supports the government's vision of doubling MSME participation to 16,000 entities by 2026.

PRODUCTION AND EXPORT TRAJECTORY

Ambitious Growth Targets

India's Defence production reached a record ₹1.51 lakh crore in FY 2024-25. The government has set transformative targets of ₹3 lakh crore in production and ₹50,000 crore in exports by 2029, supported by defence exports already hitting record levels of ₹38,424 crore in FY 2025-26.

Global Market Positioning

With over 1,700 export authorizations granted in 2024-25 and supplies to 100+ countries, India is rapidly establishing itself as a reliable global defence supplier. The sector aims to capture significant market share in friendly nations across Asia, Africa, and Latin America, supported by cost-effective manufacturing capabilities and government policy backing.

FUTURE-READY CAPABILITIES AND INFRASTRUCTURE

Air Force Modernization Vision

The Indian Air Force's 'Unmanned Force Plan' envisions acquiring 30-50 UAVs within three to five years, while targeting a sanctioned 42-squadron strength aimed for realization by 2035, resulting in a total nationwide fleet of approximately 750 fighter jets to counter threats from Pakistan and China. The Indian Air Force is pursuing long-term fighter fleet indigenization through Tejas Mk-1A, Tejas Mk-2, AMCA, and other indigenous platforms, with the objective of significantly reducing dependence on imported combat aircraft and potentially renaming itself the "Indian Air and Space Force" to reflect expanded space capabilities.

Defence Industrial Corridors

The Tamil Nadu and Uttar Pradesh defence corridors are developing dedicated manufacturing ecosystems with specialized infrastructure, testing facilities, and supply chain integration. These corridors are designed to attract global OEMs and tier suppliers while fostering innovation hubs that combine international expertise with local talent.

INVESTMENT AND PARTNERSHIP OPPORTUNITIES

R&D Expansion Plans

India aims to substantially increase defence R&D expenditure and private-sector participation as part of its Viksit Bharat 2047 vision, creating unprecedented opportunities for innovation and private participation. The government's commitment to raising defence spending from 1.9% to 4% of GDP provides substantial long-term growth visibility for sector participants.

Technology Transfer and Joint Ventures

The Make-III category under the MAKE initiative facilitates technology transfer from foreign OEMs, while 74% FDI allowance through the automatic route enables strategic partnerships and collaborative development programs. These frameworks create pathways for global companies to establish manufacturing presence while transferring critical technologies.

STRATEGIC VISION 2047

India's aerospace and defence sector is positioned to become a ₹40+ billion industry by 2040 in space alone, while defence production targets ₹3 lakh crore by 2029. The convergence of policy reforms, private sector participation, technological advancement, and export focus creates a multi-decade growth opportunity that extends well beyond traditional procurement cycles.

The sector's evolution from import dependence to export leadership, coupled with indigenous innovation capabilities and global partnership frameworks, establishes India as a strategic aerospace and defence hub capable of serving both domestic security needs and international market demands through 2047 and beyond.





CONCLUSION

India's aerospace and defence sector has transformed from an import-dependent market into a dynamic, globally competitive powerhouse. Annual defence production reached ₹1.51 lakh crore in FY 2024-25, with exports surging to ₹38,424 crore in FY 2025-26, marking more than a 30-fold increase over the past decade. Strategic reforms—most notably the Defence Procurement Manual 2025 and Defence Reform 2.0—have streamlined acquisition, fostered private sector engagement, and slashed procurement timelines.

Flagship programs such as the Advanced Medium Combat Aircraft (AMCA) and the Tata-Airbus C-295 initiative underscore India's growing R&D and manufacturing prowess. The AMCA project, backed by ₹15,000 crore for prototypes and multiple industry bids, will position India among the world's top five fifth-generation fighter developers. Simultaneously, the C-295 program has established a robust private-sector aerospace ecosystem, engaging dozens of MSME suppliers and achieving over 60% local content.

Innovation schemes like ADITI and iDEX are accelerating development in critical technologies—AI, quantum, and autonomous systems—while expanding startup and MSME participation. Defence corridors in Tamil Nadu and Uttar Pradesh, along with enhanced FDI norms, offer global OEMs and tier suppliers clear pathways for collaboration and technology transfer.

Looking ahead, India aims to achieve ₹3 lakh crore in defence production and ₹50,000 crore in exports by 2029, the government is also pursuing long-term self-reliance in combat aviation through indigenous platforms such as Tejas Mk-1A, Tejas Mk-2, TEDBF, and the Advanced Medium Combat Aircraft (AMCA), with a broader objective of significantly reducing dependence on imported fighter aircraft over the next two decades. With policy momentum, a maturing industrial base, and deepening international partnerships, India's A&D sector presents a compelling, long-term growth opportunity for global stakeholders committed to the country's strategic vision through 2047.

Strategic Opportunities for Global Players

The convergence of these sectors creates a unique value proposition for global OEMs, tier suppliers, and niche technology providers. India offers both scale and strategic partnership opportunities through:

- Manufacturing hubs in established defence corridors with dedicated infrastructure
- Technology transfer frameworks supporting joint ventures and collaborative production
- Export platforms leveraging India's competitive manufacturing costs and strategic location
- Innovation ecosystems connecting global expertise with local talent and market insights

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- Invest Karnataka: Karnataka Aerospace & Defence Policy-22-27
- Karnataka Industries.gov.in : Karnataka Industrial Policy 2025-2030
- Planning.karnataka.gov.in - Micro, Small and Medium Enterprises in Karnataka

ABOUT SAS PARTNERS

SAS Partners has been at the forefront of promoting and facilitating cross-border investments with India as the focal point since 2008. Over the years, we have partnered with governments, businesses, and entrepreneurs to transform path-breaking business ideas into successful organizations.

Leveraging our deep legal, regulatory, tax, finance, and HR expertise, SAS Partners has emerged as a one-stop advisory partner for companies looking to set up, manage, and scale their businesses in India. Our interventions span the establishment of sales and marketing offices, warehouses, global captive centers, and manufacturing projects, as well as guiding clients through strategic restructurings, Joint Ventures, and M&A initiatives.

With a growing focus on the Aerospace & Defence sector, SAS Partners brings clarity and confidence to companies navigating India's licensing, compliance, and policy environment. Through strong linkages with ecosystem partners, chambers, and industry clusters, we facilitate collaborations that help A&D companies integrate seamlessly into India's supply chain and innovation ecosystem.

Today, SAS Partners stands as an end-to-end advisory partner for Indian and foreign enterprises, bridging global aspirations with local execution. We are ISO/IEC 27001:2022 certified for our Information Security Management System, with offices in Chennai, Bangalore, Hyderabad, and Nantes, France.

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We are also present in **Bangalore** and **Hyderabad,** with a representative office in **France,** supporting clients across multiple regions through our local and international network.

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