

Draft Karnataka Space Technology Policy, 2024-29 : Executive Summary

Globally, space sector in the midst of a very exciting phase. Backed by regulatory reforms and enabled by technology advancements, we are witnessing the commercial potential of the sector set to exponentially rise. Apart from creating commercial, the fundamental and core purpose of space activities : scientific exploration and socio-economic development remains intact.

Nationally, with the launch of Indian Space Policy, 2023 a new architecture for the sector has been envisioned. Along with ISRO, IN-SPACe, NSIL and the Non-Government Entities (private and public sector entities), space sector is estimated to be a USD 44 billion sector in the next decade. Apart from engineering economic unlock, the sector will also create high-skill, deep-tech employment and space-based applications will foster a new era of sustainable development and socio-economic progress.

With a mature ecosystem that comprises of Government, private and MSMEs players, and academic institutions which includes around ten ISRO centres including the headquarters, space related public sector undertakings viz., DRDO labs and facilities viz., ECS, CASDIC, LTRE etc., HAL, BEL, BHEL, NAL etc. and academic and research institutions viz., IISc Bangalore, Indian Institute of Astrophysics, Bangalore, VTU, Belgavi, NIT, Surathkal etc. the state has a solid ecosystem of institutions across the space sector value chain.

Karnataka also one of the best and oldest state remote sensing and applications centre. For over 4 decades now, KRSAC has been developing applications and services leveraging satellite data that has been integral to Government decision making and service delivery.

Add to it, the thousands (2500+) of MSME - who are also vendors to ISRO - and are located across the state and the private aerospace, defence and space private companies (both global and domestic), Karnataka has traditionally been a space powerhouse and has played a critical role in the growth and transformation of the sector.

As a logical extension to the same, Karnataka, particularly Bengaluru has already become the hub for NewSpace companies with the highest percentage of space tech. Start-Ups headquartered/located in Bengaluru and have attracted more than USD 150 million in funding till date.

Apart from supporting the sector through several policies viz., Karnataka Aerospace and Defence Policy, 2022-27 ; Karnataka Electronics System Design and Manufacturing Policy, 2017-22; Karnataka Engineering, Research and Development Policy, 2021 ; Karnataka Start-Up Policy, 2022-27; Karnataka Biotechnology Policy, 2024-29, Government of Karnataka also has the distinction of being one of the earliest investors into some of India's emerging space technology Start-Ups.

To understand the vision, challenges and expectations of the entire emerging NewSpace ecosystem and the traditional space ecosystem, Department of Electronics, Information Technology, Biotechnology, Science and Technology, Government of Karnataka anchored Open-House industry consultations as well as focused discussions with the entire ecosystem of Start-Ups, MSMEs, investors, established space companies etc. Department also had consultations with IN-SPACe and DRDO to understand how Government of Karnataka can help the space ecosystem of Karnataka.

Basis the consultations and industry expectations, Department of Electronics, Information Technology, Biotechnology and Science and Technology, Government of Karnataka has developed the draft space technology policy.

The draft policy summarises the global, national and state level overview of the sector along with key industry expectations and several policies of the state that are already benefitting the sector.

Through the draft policy, Government of Karnataka has set a vision of holding 50% of the national market share of the sector and transform Karnataka into a global destination for space sector with 5% of global market share.

The policy will focus on all segments (upstream and downstream) of the space value chain for commercial, defense space and electronics and space research - astronomy and astrophysics.

The policy aims to operationalise the vision through five focused missions :

- **Skill Development** : *Train and up-skill 5000 students and young professionals including 1500 women students and young professionals to be employable by domestic and global space sector*
- **Investments** : *Incentives, focused reach-out and campaigns to attract USD 3 billion in investments into the state's space ecosystem*
- **Infrastructure** : *Set-up space manufacturing cluster in the state to enable agglomeration of industrial units and achieve economies of scale and create testing centres/facilities through PPP mode; also create common access channels to all testing facilities available across the state with private and public sector.*
- **Innovation and Facilitation** : *Government of Karnataka will directly support ~500 Start-Ups and MSMEs of the sector through grants, equity funding, and specific subsidies for IP registration, testing, standards and quality certification, marketing etc. to ultimately enable 50+ satellites with substantial indigenisation are launched by Karnataka based space sector enterprises.*
- **Adoption and Awareness** : *DPI/DPG approach to improve adoption of space technologies and sensitise possibilities through space technologies for non-space sectors including Government of Karnataka ; An inter-departmental committee will be constituted to define space-based solutions for governance ; Revenue based incentives for downstream applications which has resulted in positive socio-economic benefits in specific sectors viz., agriculture, forest management, fisheries, mining, urban development and rural development will be provided to the Start-Ups/MSMEs*

Detailed strategic initiatives and goals under every mission area has been developed in synergy with industry asks and expectations.