

# **KARNATAKA BIOTECHNOLOGY POLICY 2024-2029**



# Table of Contents



|           |   |           |
|-----------|---|-----------|
| <b>1.</b> | <b>Preamble</b>   | <b>09</b> |
| 1.1       | Prevailing Biotechnology Ecosystem                                | 10        |
| 1.2       | Achievements of Karnataka Biotechnology Policy 2017-2022          | 11        |
| 1.3       | Biotechnology Facilitation Cell                                   | 12        |
| 1.4       | Growth Potential for Biotechnology in the State                   | 13        |
| <b>2.</b> | <b>Policy Road map</b>  | <b>15</b> |
| 2.1       | Vision  | 16        |
| 2.2       | Mission   | 16        |
| 2.3       | Policy Objectives & Goals   | 17        |
| 2.4       | Policy Implementation   | 18        |
| 2.5       | Operational Period of Policy                                      | 18        |
| <b>3.</b> | <b>Policy Initiatives</b>   | <b>19</b> |
| 3.1       | Pillar 1 - Skill Development for a future -ready workforce Pillar | 20        |
| 3.2       | Pillar 2 Streamlining Regulatory frame works                      | 22        |
| 3.3       | Pillar 3 -Specific support to Bio-manufacturing Activities        | 24        |
| 3.4       | Pillar 4 -Scaling up the Biotech Startup & MSME Ecosystem         | 25        |
| 3.5       | Pillar 5 -Preferential procurement & Sandbox                      | 27        |
| 3.6       | Pillar 6 -Fiscal incentives and concessions                       | 28        |
| <b>4.</b> | <b>Emerging Areas of Focus</b>                                    | <b>29</b> |
| 4.1       | Bio-Agriculture   | 30        |
| 4.2       | Bio-Industrial (Bioenergy, Smart Proteins & Nutraceuticals)       | 31        |
| 4.3       | Marine Biotechnology  | 33        |
| 4.4       | Synthetic Biology & Bio-derived Structural Materials              | 35        |
| 4.5       | Medical Devices & Diagnostics                                     | 36        |
| 4.6       | AI/ML in Biotechnology  | 37        |
| 4.7       | Antimicrobial Resistance  | 39        |
| 4.8       | Multi-omics for Health  | 41        |
| 4.9       | Cell and Gene Therapies for Rare Diseases                         | 42        |
| 4.10      | Space Biotechnology   | 43        |
| <b>5.</b> | <b>Fiscal Incentives and Concessions</b>                          | <b>45</b> |
| 5.1       | Fiscal Incentives for Startups                                    | 46        |
| 5.2       | Fiscal Incentives for MSMEs                                       | 47        |
| 5.3       | Fiscal Incentives for Large Scale Industries                      | 49        |



## FOREWORD MESSAGE



### SHRI SIDDARAMAIAH

Hon'ble Chief Minister  
Government of Karnataka

I am pleased to introduce the Bio-technology Policy 2024- 2029, which aims to strengthen Karnataka's position as a leader in biotechnology. Our state has always been a trailblazer in innovation, and this policy is designed to make Karnataka a global hub for biotech advancements.

Karnataka is the leading state in the Biotechnology sector and is contributing to 1/3rd of the nation's Bio-Economy. The state has taken the lead by implementing a Bio-Technology Policy, when the Bio-Tech industry was still in its early stages. The initial policy, known as the "Millennium Bio-Technology of 2001," was followed by the second policy namely "Millennium Bio-Technology Policy-II" in 2009, and the "Karnataka Biotech Policy 2017-22". These policies have played a significant role in fostering the growth and prosperity of the Bio-Tech sector by establishing a conducive environment for its development.

We acknowledge the significant potential of biotechnology to contribute to societal well-being, drive economic growth, and tackle challenges across diverse sectors. Recognizing our state's competitive edge in this field, we are committed to revising our policy to align with the evolving needs of the sector.

Our Government is known for its pro-active policies aimed at promotion and growth of various sectors of the economy. This new policy for the Bio-Technology sector, is being announced to reinforce capacity building, promoting infrastructure development, supporting research institutions in emerging technology areas such as Bio-Agriculture, Bio-Industrial (Bio-energy, Smart Proteins & Nutraceuticals), Marine Biotechnology, Synthetic Biology & Bio- derived Structural Materials, Medical Devices & Diagnostics, AI/ML in Biotechnology, Anti-microbial resistance, Multi-omics for Health, Cell and Gene Therapies for Rare Diseases and Space Biotechnology which are expected to offer innovative solutions.

We are grateful to the Vision Group on Bio-Technology, which has given inputs to our Government for the new policy. I am confident that the Karnataka Bio-Technology Policy 2024-2029 will help place Karnataka on the global map of R&D and innovation in the Biotechnology sector.





## FOREWORD MESSAGE



### **Mr. PRIYANK KHARGE**

Hon'ble Minister for Rural  
Development and Panchayat Raj and  
IT & Bt

The Biotechnology sector in our state is widely acclaimed for its innovation and leadership, addressing global challenges like malnutrition and climate change, and promoting a carbon-neutral future. Karnataka aims to take the lead in Biotechnology, contributing significantly to knowledge, innovation, and institutional welfare, potentially becoming a global leader in the field.

Karnataka has spearheaded a series of Biotechnology Policies in India, guiding government initiatives and adapting to sectoral needs over time, marking significant milestones in policy implementation and sector development.

All 3 previous versions of Karnataka's Biotechnology policies have enabled development of necessary infrastructure, institutions of higher learning and research, development of skills etc., for the growth of this sector in Karnataka.

The new Biotechnology policy 2024-2029 aims to build upon the successes of the previous policies and address the emerging challenges and opportunities in the sector. The policy is designed to give an impetus to the growth of the bioeconomy in Karnataka. The policy's objectives include streamlining regulations, supporting bio-manufacturing, strengthening collaboration with academia for workforce skilling, attracting investment, promoting R&D, fostering innovation, and creating employment opportunities in the biotechnology industry, backed by the state government's commitment to providing the necessary infrastructure, incentives, and support to facilitate the growth of the biotechnology sector.

I am confident that the objectives listed in the policy will be achieved during the policy period.

I extend my gratitude to the chairperson and members of the Vision Group on Biotechnology (VGBT) and several other experts for their valuable suggestions in this endeavor of policy making. I am confident that the ecosystem in Karnataka, led by visionaries of great repute and caliber, will rise to great heights in the coming years.





# Abbreviations

|         |   |
|---------|---|
| ABLE    | Association of Biotechnology-Led Enterprises              |
| AI/ML   | Artificial Intelligence and Machine Learning              |
| AMR     | Antimicrobial Resistance                                  |
| ARTPARK | AI & Robotics Technology Park                             |
| AVGC    | Animation, Visual Effects, Gaming & Comic                 |
| AVRDC   | Anti-Venom Research and Development Centre (VISHAM)       |
| BBC     | Bangalore Bioinnovation Centre                            |
| BFC     | Biotechnology Facilitation Cell                           |
| BIRAC   | Biotechnology Industry Research Assistance Council        |
| BiSEP   | Biotechnology Skill Enhancement Programme                 |
| BT      | Biotechnology   |
| BTFS    | Biotechnology Finishing School                            |
| CAF     | Combined Application Form                                 |
| CAGR    | Compounded Annual Growth Rate                             |
| C-CAMP  | Centre for Cellular and Molecular Platforms               |
| CAR     | Chimeric Antigen Receptors                                |
| CDSCO   | Central Drugs Standard Control Organisation               |
| CFTRI   | Central Food Technological Research Institute             |
| CGT     | Capital Gains Tax   |
| CHG     | Centre for Human Genetics                                 |
| CLS     | California Lifesciences                                   |
| CPDM    | Centre for Product Design and Manufacturing               |
| CRA     | Climate-Resilient Agriculture                             |
| CRISPR  | Clustered Regularly Interspaced Short Palindromic Repeats |
| CRO     | Contract Research Organisation                            |
| CoE     | Centre of Excellence                                      |
| DBT     | Department of Biotechnology                               |
| DNA     | Deoxyribonucleic Acid                                     |
| DST     | Department of Science and Technology                      |
| EDP     | Entrepreneurship Development Program                      |
| EODB    | Ease of Doing Business                                    |
| ER&D    | Engineering Research and Development                      |



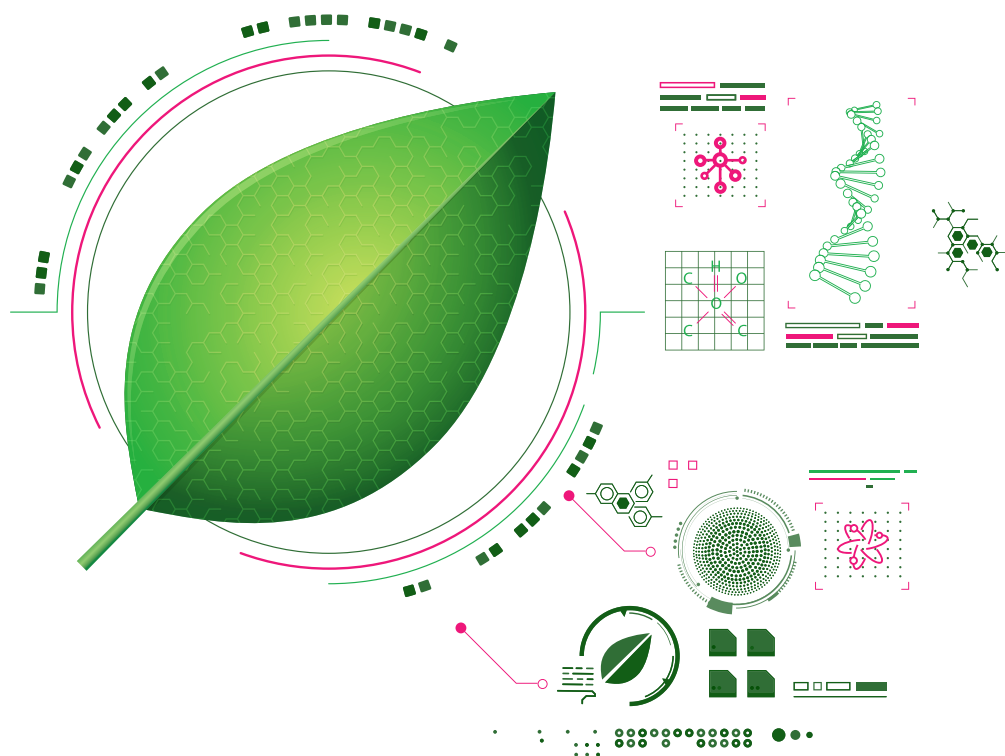
# Abbreviations

|         |   |
|---------|---|
| FDA     | Food and Drug Administration                                |
| FDI     | Foreign Direct Investment                                   |
| FSID    | Foundation for Science and innovation Development           |
| FTP     | Faculty Training Program                                    |
| FY      | Fiscal Year   |
| GCC     | Global Capability Centre                                    |
| GDP     | Gross Domestic Product                                      |
| GIA-MAP | Global Innovation Alliance – Market Access Program          |
| GoK     | Government of Karnataka                                     |
| GST     | Goods and Service Tax                                       |
| IBAB    | Institute of Bioinformatics and Applied Biotechnology       |
| ICMR    | Indian Council of Medical Research                          |
| iGEM    | International Genetically Engineered Machine                |
| IIM     | Indian Institute of Management                              |
| IISc    | Indian Institute of Science                                 |
| IKF     | Invest Karnataka Forum                                      |
| INR     | Indian Rupee  |
| INSACOG | Indian SARS-CoV-2 Consortium on Genomics                    |
| ISRO    | Indian Space Research Organization                          |
| IT      | Information Technology                                      |
| KIMS    | Karnataka Institute of Medical Sciences                     |
| KITS    | Karnataka Innovation And Technology Society                 |
| KITVEN  | Karnataka Innovation and Technology Venture                 |
| K-SAP   | Karnataka Startup Advancement Program                       |
| KUM     | Karnataka Udyog Mitra                                       |
| KVAFSU  | Karnataka Veterinary Animal & Fisheries Sciences University |
| MNC     | Multinational Corporation                                   |
| MOOC    | Massive Open Online Course                                  |
| MSME    | Micro, Small and Medium Enterprises                         |
| NCBS    | National Centre for Biological Sciences                     |
| NGS     | Next Generation Sequencing                                  |
| NITI    | National Institution for Transforming India                 |



# Abbreviations

|        |   |
|--------|---|
| OPEX   | Operational Expenses                                      |
| PCR    | Polymerase Chain Reaction                                 |
| PLI    | Production Linked Incentive                               |
| PPP    | Public Private Partnership                                |
| R&D    | Research and Development                                  |
| RNA    | Ribonucleic Acid  |
| SEBI   | Security and Exchange Board of India                      |
| SGST   | State Goods and Service Tax                               |
| SIC    | Strategic Investments Committee                           |
| ST     | Science and Technology                                    |
| Instem | Institute for Stem Cell Biology and Regenerative Medicine |
| TBI    | Technology Business Incubators                            |
| UAS    | University of Agricultural Sciences                       |
| USA    | United States of America                                  |
| VGBT   | Vision Group on Biotechnology                             |
| XIME   | Xavier Institute of Management and Entrepreneurship       |





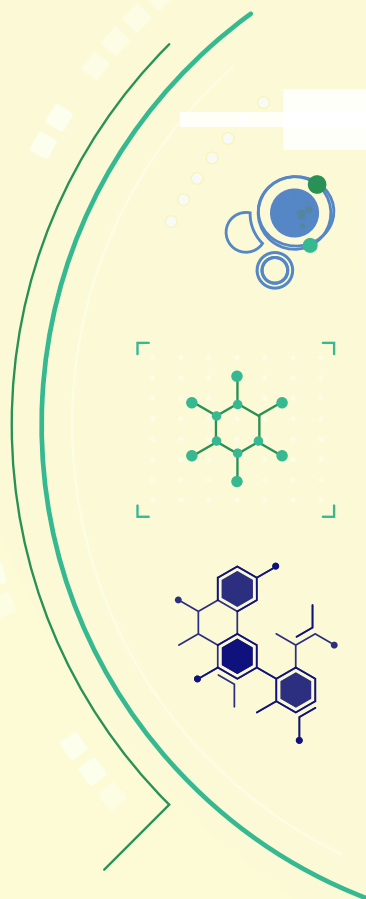
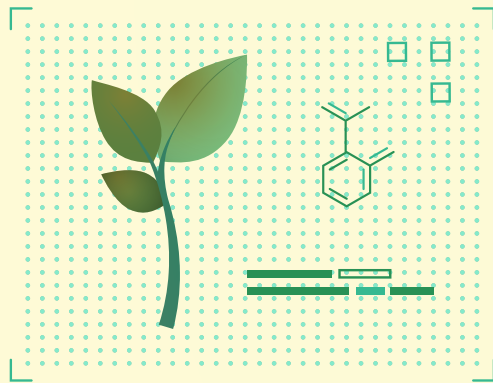




# 1. PREAMBLE

The growth of bioeconomy has been propelled by escalating demand for bio-based products and services, supportive government initiatives, and decreasing costs in biotechnology and biomanufacturing.

Karnataka's ascent as the biotechnology capital is a testament to its robust ecosystem, innovative initiatives, and unwavering government support. With a flourishing bioeconomy and a diverse array of startups, the state is poised to play a pivotal role in propelling India to the forefront of the global biotechnology ecosystem.





## 1.1 PREVAILING BIOTECHNOLOGY ECOSYSTEM

India is ranked third in the Asia-Pacific region and among the top 12 biotechnology destinations worldwide. India aims to be a \$300 billion bioeconomy by 2030. The Indian Bioeconomy is valued at \$151 billion, reflecting a remarkable 13.7 fold increase and contributing 3.75% to the total GDP. With a growing bioeconomy, reaching a value from \$27 billion to \$31 billion in 2023, Karnataka spearheads the biotechnology industry with a total of 1000+ startups and expenditure exceeding \$200 million. Additionally, it ranks as India's third-largest ethanol producer, hosting over 60 producers.

A strong network of infrastructure, a huge talent pool, third largest GST collection, fifth in terms of ease of doing business and one of the highest FDI in India, makes the Karnataka's ecosystem perfect for the growth of the sector. Bengaluru, Karnataka's science capital and Asia's fastest growing Technopolis has developed into an ideal base for the biotechnology industry. Karnataka has built considerable resources and human capital to support biotechnology companies and a multi-disciplinary talent pool with the establishment of institutes like Centre of Human Genetics (CHG), Institute of Bioinformatics and Applied Biotechnology (IBAB), and Bangalore Bioinnovation Centre (BBC) also, being a home to many renowned educational and research institutes to help develop quality manpower in diverse fields of biotechnology.

Karnataka is home to many renowned educational and research institutes, including the Indian Institute of Science (IISc), National Centre for Biological Sciences (NCBS), Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Rajiv Gandhi University of Health Sciences, the University of Agricultural Sciences, Bengaluru (UAS-B), Institute for Stem Cell Science and Regenerative Medicine (instem), Central Food Technological Research Institute (CFTRI), Defence Food Research Laboratory (DFRL), University of Horticultural Sciences (UHS), Bagalkot and others.



## 1.2 ACHIEVEMENTS OF KARNATAKA BIOTECHNOLOGY POLICY 2017-2022

The Vision Group on BT was reconstituted to suggest ways to harness Biotechnology for the benefit of the society and overall economic development. The MNC Engagement Cell was reorganized in order to attract investments and the eBiz platform underwent a revamp, simplifying the approval process through a Combined Application Form (CAF) and Self-Certification by entrepreneurs. Online monitoring of fiscal incentives was enabled by the Department of Electronics, IT, BT, and S&T, Janaspandana was introduced to ensure time-bound grievance handling through an integrated public redressal system. The Karnataka Strategic Investments Committee (SIC) now guides investment attraction, and the Invest Karnataka Forum (IKF) was reconstituted to adapt to global industrial changes. Labour reforms include transparency, self-certification, night shifts for women, and flexible employment contracts. Land reforms eased farmland purchase for industrial use, direct buying from farmers, and streamlined approvals.

Bengaluru Life Sciences Park, an industrial cluster developed under PPP mode on 52 acres area will provide the much-needed space for the biotechnology companies to expand and grow in the State.

The government introduced several new policies, including the New Industrial Policy, E R&D Policy, New Startup Policy, and R&D and Innovation Policy and has also established Karnataka Innovation Authority, Karnataka Acceleration Network and Regulatory Sandboxes for regulating disruptive technologies.

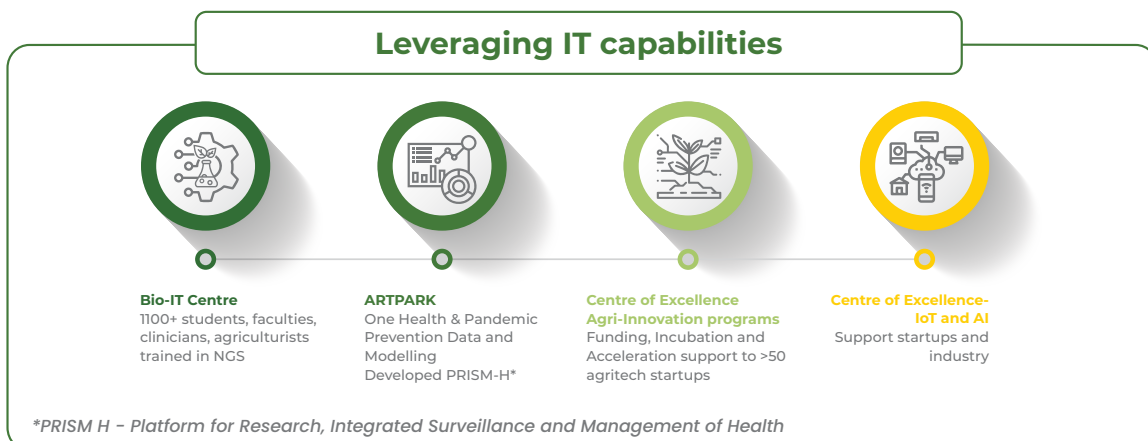
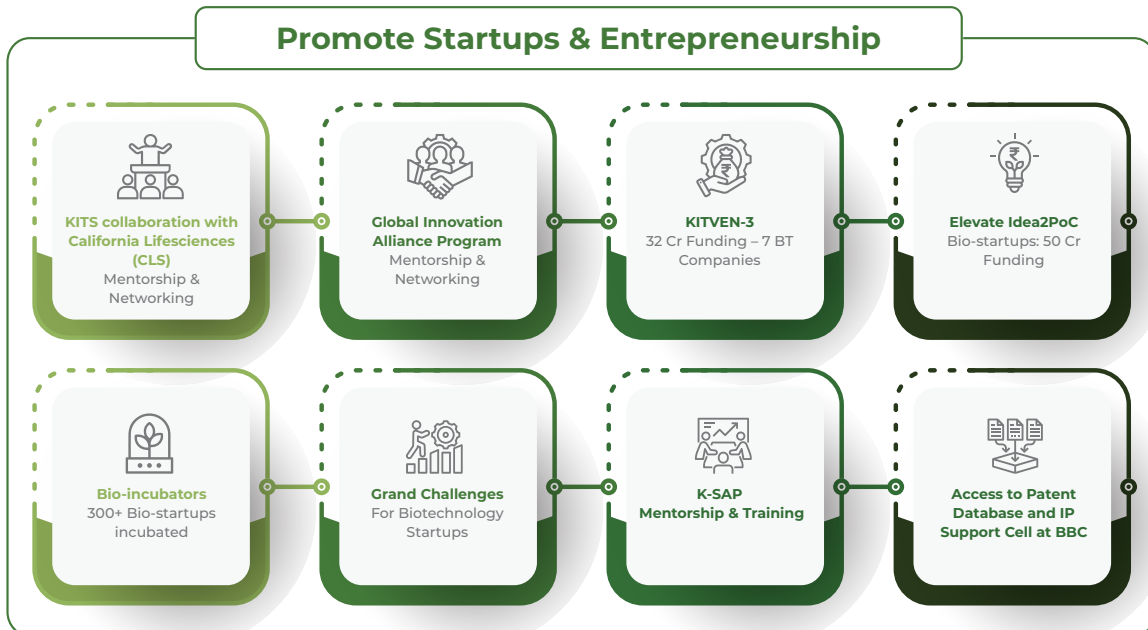
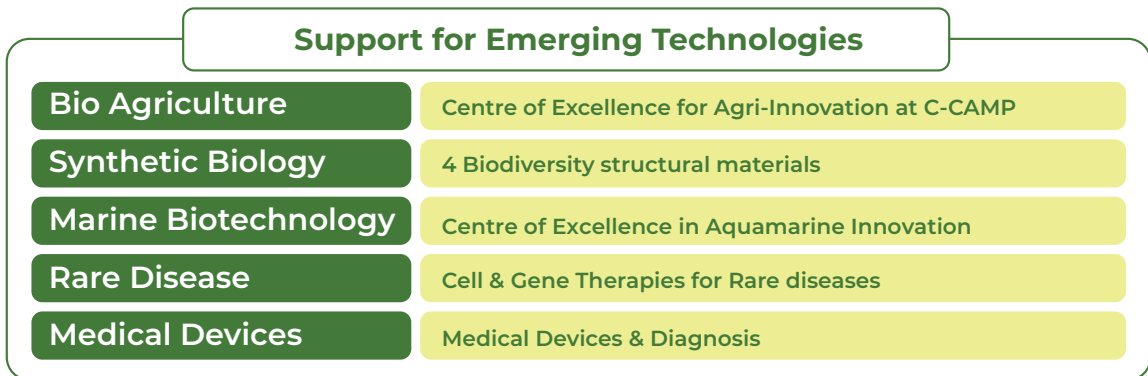
In the area of Skill Development, The Biotechnology Skill Enhancement Programme (BiSEP), a modified version of the Biotechnology Finishing School (BTFS), was launched in 2018 across with a primary goal to educate and empower human resources, bridging the gap between academia and the biotech industry. Over 550 students enrolled in the program, with more than 485 successfully completing their training. Impressively, over 60% of these graduates secured placements in the industry. In 2021, the Skill Vigyan Centre was established at Karnataka Innovation and Technology Society (KITS) with support from the Department of Biotechnology, Ministry of Science & Technology, Government of India. Through the Faculty Training Program (FTP) and Entrepreneurship Development Program (EDP), this centre trained over 125 teaching faculty members and entrepreneurs in multidisciplinary areas of biotechnology. Additionally, the state constituted a Skill Council for Emerging Technologies in Biotechnology. Chaired by the Minister for IT and BT, this council includes members from both industry and academia. Its purpose is to provide guidance, policy advisory, and specific action-oriented recommendations to address skill gaps in emerging technology areas.

**VISHAM** is being established as a collaborative initiative between KITS, GoK, IBAB and the Evolutionary Venomics Lab, Centre for Ecological Sciences, Indian Institute of Science at Bengaluru Helix Biotech Park. This centre will play a major role in developing advanced snakebite interventions and biodiscovery research from venoms, as well as provide various services invaluable for the manufacture of lifesaving antivenoms. The State Government has continued to support and promote startups and entrepreneurship, provide support for emerging technologies to foster bioeconomy and leverage IT capabilities for development of Bio-IT tools and solutions by fostering collaboration between the IT & BT ecosystems to develop new solutions & realize the potential of biological research and discoveries.



### 1.3 BIOTECHNOLOGY FACILITATION CELL

The Biotechnology Facilitation Cell (BFC) at KITS will focus its activities on developing world-class infrastructure for biotechnology research, development and manufacturing, nurturing a pool of talented professionals, supporting building partnerships and collaborations between biotech companies, research institutions, and academic organizations that foster innovation and drive investment in Karnataka's biotechnology sector.

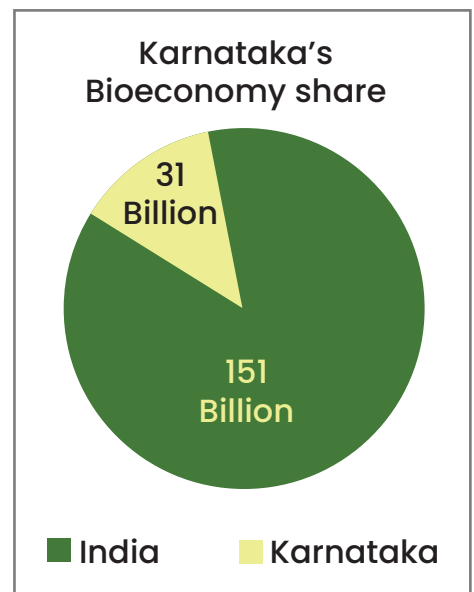
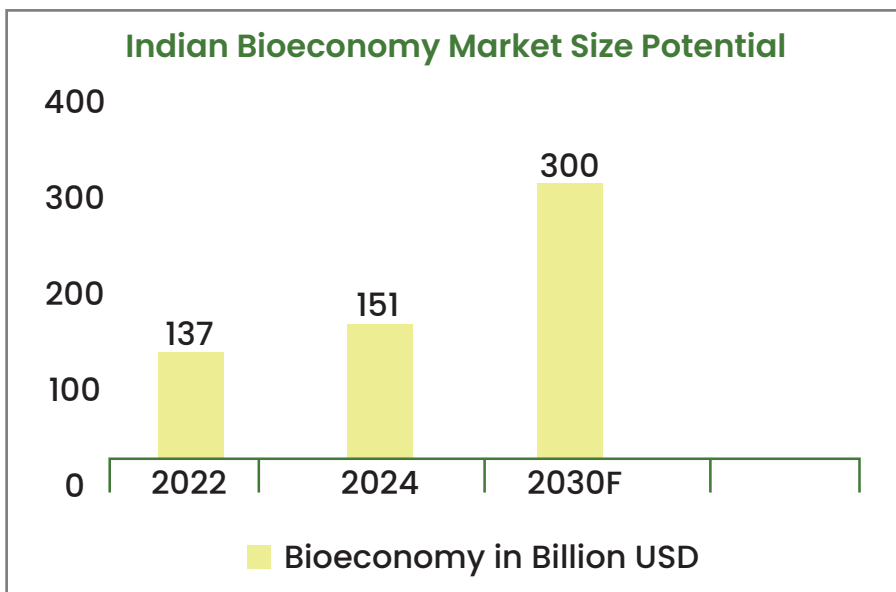




## 1.4 GROWTH POTENTIAL FOR BIOTECHNOLOGY IN THE STATE

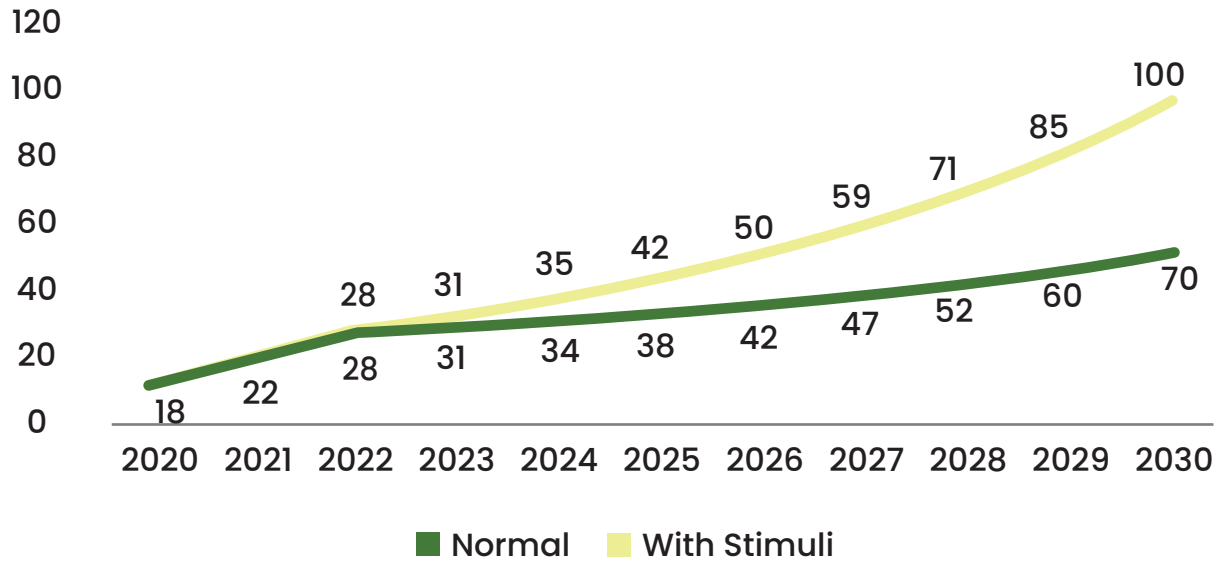
Karnataka is the leading state with more than 20% share of the Bioeconomy of India. In the comprehensive analysis of Karnataka's bioeconomy, the BioPharma sector emerges as the frontrunner, showcasing consistent growth over three years and encompassing Therapeutics, Vaccines, and Diagnostics, collectively amounting to \$12.61 billion. Following closely is the BioIndustrial segment, comprising Biofuels and Enzymes, with a valuation of \$12.10 billion, demonstrating a steady increase. The BioServices category, inclusive of BioIT and Research Services, stands at a significant valuation of \$5.09 billion, having doubled over time, signifying remarkable growth. Meanwhile, the BioAgri sector, which encompasses Bio-Pesticides and Bt Cotton, exhibits gradual but consistent growth, equivalent to \$1.22 billion.

While these sectors collectively underscore the diverse and promising landscape of Karnataka's bioeconomy, in an optimistic pursuit of a \$100 billion bioeconomy for 2030, government backing for key industries within a comprehensive framework is imperative. The strategic objective is to elevate biopharma's contribution to \$30 billion by FY2030, a pivotal aspect of this roadmap. Concurrently, the bio-agricultural segment, anticipated to reach \$15 billion, underscores its significance in this trajectory. Moreover, the bio-industrial domain, encompassing bio-renewables, bioenergy, biofuels, and green chemicals, presents substantial potential, aspiring to quadruple its contribution to \$30 billion. Beyond these sectors, there are promising growth prospects in research and development, marine biotechnology, and bioinformatics services, including AI and Deep Tech, with a targeted revenue of \$15 billion. With this approach, Karnataka's CAGR has the potential to register 19% (current CAGR being 14%) and can grow the Bioeconomy share to one-third.





## Karnataka Bioeconomy Projections (In Billion USD)



India's Bioeconomy is targeted to reach \$300 Billion from current \$151 Billion at CAGR 14% since 2020

Karnataka - 1/5<sup>th</sup> of India's Bioeconomy with current growth projection of \$70billion

Karnataka has the potential to register 19% CAGR & reach \$100 billion by 2030

Target to increase Karnataka's share to 1/3<sup>rd</sup>





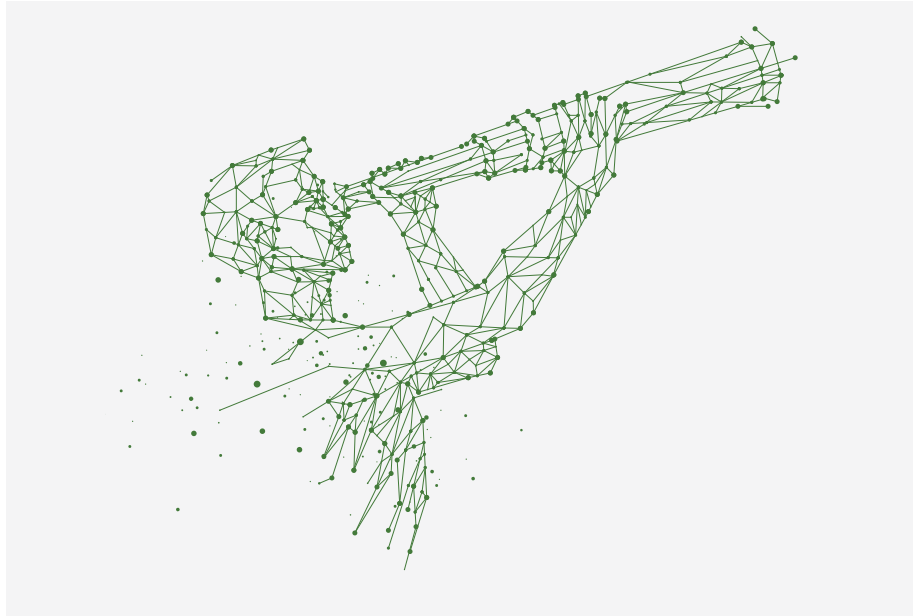
## 2.POLICY ROADMAP





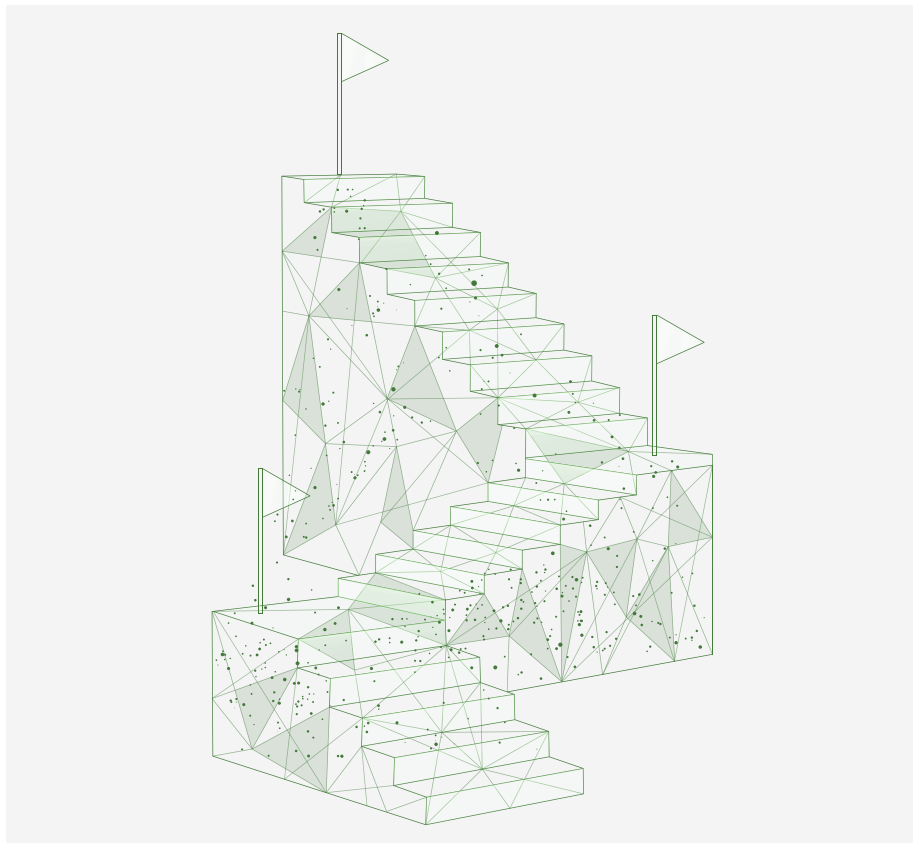
## 2.1 VISION

To emerge as the top Biotechnology destination in the world with focus for sustainable, safe, and secure future.



## 2.2 MISSION

Foster a conducive and vibrant ecosystem that attracts exceptional minds across the globe, building world class infrastructure, pushing the frontiers of research and innovation, facilitating global partnership, entrepreneurship, and an equitable economic growth.





## 2.3 POLICY OBJECTIVES & GOALS

The first two Biotechnology Policies of the state, laid the foundation for an advanced biotechnology ecosystem in Karnataka and the third policy focused on providing direction and support to the sustainable development of a thriving and world-class biotech ecosystem. The past policies have laid a solid foundation, and provided required support and impetus leading to a matured ecosystem which has now reached the desired inflection point to bring the real 'Transformation'.

Hence, the focus of this policy will be '**Focused Transformation through Impactful Implementation**' to take the growth from a linear to exponential trajectory. This policy will synergize with the policies that the State already has in place viz., Industrial Policy, R&D and Innovation Policy, E R&D Policy, and Startup Policy and at the same time be distinct in supporting the growth of the biotech sector in the State. The policy aims to play a vital role in creating an enabling environment across the State for nurturing businesses throughout their lifecycle and make Karnataka a global innovation hub for the Biotechnology sector with the following objectives and goals:

- 2.3.1** Strengthen educational institutions for skilling in biotechnology, not just from an employability perspective but also from an entrepreneurship perspective.
- 2.3.2** Attempt to streamline biotech and other related regulations to ease business establishment and clarity in operations thereby promoting more investments.
- 2.3.3** Support biomanufacturing for products aligning with health, climate, and energy goals, enhancing food security and the state's bioeconomy, making Karnataka as the next global hub for biomanufacturing.
- 2.3.4** Continue to support the robust startup ecosystem with funding, incubation, and mentorship for early-stage biotech ventures; and acceleration, grow out facilities and market access through preferential procurement of local products for mid-stage biotech ventures.
- 2.3.5** Enable preferential government procurement norms for Made-in-Karnataka Biotech Products & Services and facilitate quick use of products developed to treat rare diseases and med/health-tech innovation through Regulatory Sandbox Mechanism.
- 2.3.6** Continue to support R&D and Commercialization efforts in Emerging Technology Areas of Biotechnology, aiming to make Karnataka a Global Hub for Genomics and Molecular Biology innovations in materials, micro and nanotechnologies for Health, Food, and Energy Security.
- 2.3.7** Facilitate the establishment and growth of at least 300 Biotechnology companies, including 50 that are particularly innovative or high-profile by providing a lucrative package of incentives and subsidies



**2.3.8** Create awareness among youth about the opportunities encompassing both education and employment prospects within the Biotechnology sector and create 30,000 new, high-quality jobs in the sector by 2029, with a focus on roles requiring specialized skills in emerging technologies; partner with 200 or more educational institutions and industry, including MOOC platforms, to train at least 20,000 individuals in Biotechnology specific and standardized skills.

The proposed objectives would be achieved by harnessing on some of the achievements and opportunities accomplished during the earlier policies and strategically implementing the key tenets of this policy.

## 2.4 POLICY IMPLEMENTATION

The scope and priority of the initiatives, funding requirements, target group identification, the extent and scope of support for all initiatives mentioned in the policy under various objectives will be decided by a committee headed by the Secretary to Government - Department of Electronics, IT, BT, and S&T, constituting members drawn from VGBT, ABLE and External Subject Experts. The committee further may form Sub-Committee/s or Group/s or Sub-Group/s to provide both technical and non-technical inputs covering priority initiatives, funding requirements, target group identification, the extent and scope of support for each of the initiatives, the target group identification, procedure for call for proposals, evaluation, selection, effective implementation and monitoring of programs and schemes mentioned in the policy under its various objectives.

## 2.5 OPERATIONAL PERIOD OF POLICY

This policy shall be valid for a period of five years from the date of issue of Government Order or till a new Policy is announced.





# 3. POLICY INITIATIVES



## 3.1 PILLAR 1



## SKILL DEVELOPMENT FOR A FUTURE-READY WORKFORCE

Karnataka's diverse and skilled labour force, supported by robust research institutions, forms a significant advantage in the bioeconomy. The Department of Skill Development, Entrepreneurship, and Livelihood, Government of Karnataka aims to equip young individuals with necessary skills for employment. The policy focuses on organizing, regulating, and promoting skill development programs in biotechnology. With a favourable demographic dividend, Karnataka aims to drive economic growth by providing essential skills to its youth. Additionally, the policy aims to elevate IBAB and CHG to a globally renowned university.

Similar backing will be extended to the Institute of Agri Biotechnology under the Department of Biotechnology, UAS, Dharwad, to introduce new graduate and post-graduate courses focusing on emerging areas of Agri-Biotechnology, such as Gene Editing and Molecular Breeding.

### Action Points :

- 3.1.1** Continuation of Biotechnology Skill Enhancement Program (BiSEP) to develop highly skilled workforce in specific domains.
- 3.1.2** The State Government will initiate the 'Bed-to-Bench Research Investigator Award' to support private sector recruitment of highly qualified clinician scientists from abroad.
- 3.1.3** Skill Development courses in Polytechnic colleges in select government and government-aided polytechnic colleges, with a focus on districts like Mysuru, Mangalore, Hubballi-Dharwad, Raichur, and Yadgir.
- 3.1.4** Encouragement of industry-academia collaboration to develop skilled human resources, with incentives for State Universities/State Government University affiliated Autonomous Colleges and reimbursement for training and certification expenses for selected students.
- 3.1.5** A government initiative aiming for continuous Professional Development Upskilling Program will be launched to upskill professionals in advanced biotechnological areas.
- 3.1.6** Institutions will be encouraged to regularly update their curricula to align with market demand, facilitated by a committee of biotech experts tasked with preparing a Model Syllabus for adoption.



- 3.1.7** The state will establish quality criteria in line with national policies to ensure rigorous assessment and certification of skills training providers, enhancing the quality of workforce development programs as a part of their quality assurance framework.
- 3.1.8** Efforts will be made to establish competence centres in state universities, facilitated by international training centres or multinational corporations, to offer state-of-the-art training in digital and biomanufacturing skills.
- 3.1.9** To bridge the gap between academic knowledge and industry needs, programs will be developed to support research activities in academic institutions, with grants available for eligible research projects, fostering collaboration and innovation in the biotechnology sector.
- 3.1.10** Training-plus-Excellence programs will be launched in collaboration with incubators to train entrepreneurs in biomanufacturing techniques and technology business development.



## 3.2 PILLAR 2



## STREAMLINING REGULATORY FRAMEWORKS

Karnataka has implemented significant measures to enhance its business environment, positioning itself as a top destination for biotechnology investment. Karnataka has already put in place several measures that have made it one of the easiest states in India to do business in (EODB) and strengthen its position as a preferred destination for Biotechnology Hub. Efforts have focused on streamlining administrative processes through initiatives like single-window clearance and an approval tracking system. Additionally, the state has leveraged technology to improve governance and information dissemination, including the establishment of a dedicated web platform for biotech sector updates. These efforts aim to attract foreign investment and foster a conducive environment for biotech businesses in Karnataka.

Furthermore, an exhaustive analysis of the business lifecycle and regulatory requirements has been conducted, leading to the formulation of comprehensive guidelines for preferential procurement of locally made biotech products and services before concluding on the below policy initiatives/action points.









### 3.3 PILLAR 3



## SPECIFIC SUPPORT TO BIO-MANUFACTURING ACTIVITIES

State Government investment is critical to create large, shared, and scalable facilities that can be utilized by various growth-stage startups and companies who have products to take it to transitional stages of growth. Biomanufacturing infrastructure hubs could provide these critical facilities in locations across Karnataka, advancing manufacturing methods for complex new bioproducts and providing training opportunities for skilled workers. These hubs would be developed on public-private partnership model, established in Bengaluru and other districts like Mysuru and Hubballi - Dharwad. The hubs would expand equitable access to job opportunities and enable better utilization of the unique natural resources and industrial capabilities located in different parts of the State.



#### Action Points:

- 3.3.1** The State plans to establish a green-field Biofoundry at Bengaluru Helix Biotechnology Park in partnership with the Centre and the Private Sector, managed by an independent board comprising representatives from the Centre, State, and private partners under the DBT initiative of "Fostering High Performance Biomanufacturing" and the Private Sector.
- 3.3.2** The Government will support the establishment of a Vaccine Research & Pilot Production Facility on a Viability Gap Funding basis, focusing on novel vaccine development up to Phase 3 Clinical Trials, with an estimated cost of ₹250 crores, and operated by a private sector preferably a Contract Research Organisation (CRO).
- 3.3.3** This initiative will promote Karnataka as a global clinical trials hub with streamlined approval processes and incentives for bio-manufacturing units in areas like CAR-T, mRNA Vaccines, and AMR drugs. The Karnataka Institute of Medical Sciences (KIMS), Hubballi, recognized by ICMR, boosts the state's status as a clinical research hub, supported by research funding and a thriving biotech and pharma industry.



## 3.4 PILLAR 4



## SCALING UP THE BIOTECH STARTUP & MSME ECOSYSTEM

Government is committed in creating a local environment that facilitates the acceleration of the product development to commercialization process that is critical to retaining the State's position as the premier biotech and life sciences innovation hub in India and the globe. The State has number of bio-incubators established with the support of Department of Electronics, IT, BT, and S&T, central agencies like NITI Aayog, BIRAC, DST, etc. and private bodies who are supporting new businesses during their early stages. Through Elevate Idea2PoC, Grand Challenges, Seed Funding along with mentoring programs, the Department of Electronics, IT, BT and S&T has been nurturing bio-startup ecosystem in the State. The City of Bengaluru, Karnataka has been among the top thirty startup ecosystems in the world for many years now (Startup Genome Report 2023).



### Action Points :

- 3.4.1** The Department of Electronics, IT, BT and S&T will support the establishment of a high-tech Biotechnology Growth Cluster, providing a grow-out space for startups to transition to the next phase of growth and foster innovation in emerging biotechnology sectors.



- 3.4.2** The Karnataka Bio Startup Accelerator Programme (K-SAP) will be restructured to aid early-stage businesses in overcoming the "valley of death."
- 3.4.3** Karnataka Innovation and Technology Venture Fund-5 (KITVEN Fund-5) will invest in bio-startups utilizing disruptive technologies like gene editing and bioengineering.
- 3.4.4** The government shall introduce Entrepreneur In Residence Program, providing opportunities for innovative entrepreneurs with early stage startup ideas, to promote their career and aspiration through guidance on business concepts, strategies or venture during the residency.
- 3.4.5** Karnataka will continue participating in international biotechnology events like BIO-USA, BIO-Japan, and BIO-Korea, supporting startups and biotech companies to foster international collaborations.
- 3.4.6** Global Innovation Alliance – Market Access Program (GIA-MAP) will include dedicated programs for biotech and life sciences startups to access international markets.
- 3.4.7** Building on the success of the pilot K-tech – California Lifesciences Startup International Acceleration Program, a full-scale initiative will support 100 biotech and life sciences startups during the policy period.
- 3.4.8** Support for startups will include a special funding mechanism providing debt funds for bio-startups in the scale-up stage and allowing small companies to use costly equipment at Government-supported Incubators or recognized academic institutes.
- 3.4.9** Additionally, a mentorship group will be established to guide startups through regulatory pathways and business promotion, while Bio-innovation Centres will be established beyond Bengaluru areas, with schemes offering OPEX support to existing Bio-Incubators.
- 3.4.10** Grassroot Innovation Centre of Excellence initiative will be established for Startups that lead bottom-up solutions for sustainable development; solutions that respond to local situation, adding values of rural communities and are aimed at improving the socio-economic condition and standard of living of the rural communities.
- 3.4.11** The Rural Biotechnological Innovation & Application Centre will be established to support innovations with social impact in healthcare, agriculture, and environmental sustainability, while promoting the concept of "Bio-Village" to address agricultural challenges, enhance healthcare, promote sustainable practices, and create economic opportunities for rural communities.



## 3.5 PILLAR 5



## PREFERENTIAL PROCUREMENT AND SANDBOX

The implementation of preferential Government procurement norms for Made in Karnataka Biotechnology Products & Services, coupled with the swift deployment of products designed to treat rare diseases under the Karnataka Sand Box regulations. Furthermore, with preferential procurement norms ensuring a reliable local market, this biotech company gains the crucial support needed to scale its operations and compete on a broader scale. This two-pronged strategy not only propels the growth of individual enterprises but positions Karnataka as a thriving hub for innovative biotechnological solutions, addressing rare diseases and advancing the overall trajectory of the state's biotechnology industry.



### Action Points :

- 3.5.1** To develop clear and comprehensive guidelines outlining preferential procurement norms for biotech products and services made in Karnataka and facilitate use of products developed to treat rare diseases under Karnataka Sandbox Regulations awaiting national approval.
- 3.5.2** Biotechnology Start-ups would be supported under the Preferential Market Access Program of the Department of Electronics, IT, BT and S&T to ensure ease of market access within the government.
- 3.5.3** Establish a catalogue of locally produced biotech products and services, categorizing them based on their relevance to different government sectors.



## 3.6 PILLAR 6



## FISCAL INCENTIVES AND CONCESSIONS

Incentives under this policy have been tailored to align with the size of each company. By addressing the unique requirements and challenges faced by different segments, fiscal incentives will help lower the capital burden on companies, enabling them to achieve better profits and faster growth.



### Action Points :

- 3.6.1** A comprehensive operational Guidelines (OPG) for accessing fiscal incentives under the policy is available on the Department's website at <http://itbst.karnataka.gov.in>
- 3.6.2** A dedicated portal offering easy access to information and applications for fiscal incentives, ensuring companies can efficiently navigate and benefit from the available support.
- 3.6.3** A tiered financial incentives system based on contributions to sustainability and innovation
- 3.6.4** Details of Fiscal incentives are listed in Section – 5.



# 4. EMERGING AREAS OF FOCUS

The Government of Karnataka stands poised to maintain unwavering support for Research, Development, and Commercialization efforts in emerging biotechnology areas. This dedication not only drives scientific discovery and economic growth but also ensures that the state remains a pivotal player in shaping the future landscape of biotechnology





## 4.1 BIO-AGRICULTURE

Karnataka, 123,100 km<sup>2</sup> of land, or 64.6% of the state's total area, are under cultivation. The state's overall agricultural productivity has increased significantly. There is an urgent need for the adoption of climate-resilient agriculture to increase farm incomes and productivity over the long run while utilizing the natural resources that are already available through systems of crop and livestock production. Interestingly, the UAS, Dharwad has developed 24 novel crop breeds that are insect, salinity, and drought resistant. The state will continue the focus on the development of biotechnology procedures to address biotic and abiotic stressors impeding the state's agricultural production's growth and quality which includes phenomics, genetic engineering, genome editing, micropropagation etc.



### Initiatives:

- 4.1.1** To support innovations, a specialized startup Hatchery for Genome Editing and Minichromosomal Technology will be established in one of the State's Agriculture Universities, functioning like incubators to provide training, technology access, and semi-private workspace. The structure and financing will be decided by a select committee comprising government representatives from the Department of Electronics, IT, BT and S&T, agriculture scientists, and industry experts.
- 4.1.2** The Centre of Excellence for Agri Innovation at C-CAMP will continue issuing grand challenge calls to address critical farming challenges by supporting innovative companies in developing precision agriculture technologies utilizing big data analytics, simulation modelling, drone technology, pest surveillance, and forewarning systems.



- 4.1.3** The Department of Agriculture will soon launch the Navodyama scheme to fund startups for developing innovative agri-solutions, scaling up businesses, and providing mentorship and acceleration programs. Collaboration between the Bangalore Bio-innovation Centre and the Centre of Excellence for Agri-Innovation at C-CAMP will support, and mentor first-generation agri-entrepreneurs selected under the Navodyama and Elevate Idea2PoC programs.
- 4.1.4** Establishment of Agri /Farm Innovation Centre in BBC campus under RIDF Scheme of NABARD and Rashtriya Krishi Vikas Yojana (RKVY) to foster research and development and to promote innovation and commercialization of rural and agriculture based technologies



## 4.2 BIO-INDUSTRIAL (BIOENERGY, SMART PROTEINS & NUTRACEUTICALS)

In Karnataka, the biotech industry is gearing up to take significant initiatives in the fields of Bioenergy, Smart Proteins, and Nutraceuticals. Bioenergy, utilizing renewable biological resources, holds immense potential for sustainable energy production, contributing to Karnataka's energy security and environmental goals. Smart Proteins, leveraging advanced biotechnological techniques, offer innovative solutions in food and nutrition, catering to the evolving dietary preferences and health-conscious consumers. Additionally, Nutraceuticals, blending nutrition and pharmaceuticals, present opportunities for developing functional foods and dietary supplements tailored to address specific health needs. By focusing on these areas, Karnataka's biotech industry aims to drive innovation, create economic opportunities, and contribute to societal well-being through sustainable energy, enhanced nutrition, and improved healthcare solutions.

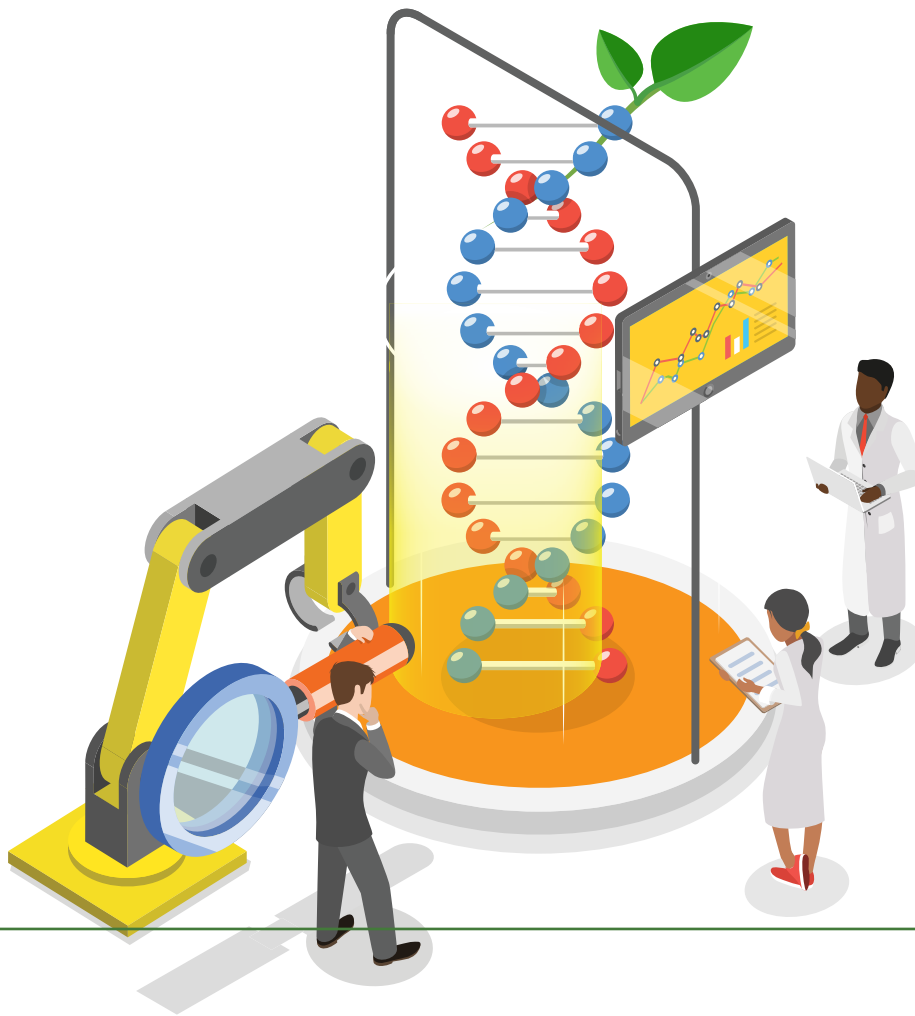






## Initiatives:

- 4.2.1** The Department of Electronics, IT, BT and S&T will extend financial support to Nutra Phyto Incubation Centre – Common Instrumentation Facility (NPIC-CIF) at CFTRI, Mysuru to promote Skilling, incubation, innovation and entrepreneurship in food processing and nutraceuticals.
- 4.2.2** Under the Skill Advisory Council, Food and Nutraceutical skilling activities will be framed to create industry-ready human resources to cater to the needs of the food processing industry.
- 4.2.3** The Department of Electronics, IT, BT and S&T will also look into collaboration and also to promote food parks established by the State Government and Central Government.
- 4.2.4** Biofoundry is proposed to be set up by the Government of Karnataka in collaboration with BIRAC, DBT, Government of India. This facility will include a dedicated vertical to support biomanufacturing in the fields of functional foods and smart proteins.
- 4.2.5** Assessing the equipment needs specific to the smart protein sector is essential for enhancing existing facilities in the state, enabling them to better serve the ecosystem's requirements.





## 4.3 MARINE BIOTECHNOLOGY

One of India's nine maritime states, Karnataka is endowed with an abundance of diverse aquatic resources in both the interior and marine domains. The 320-km natural coastline of Karnataka is home to abundant corals, a variety of fish, and other economically significant aquatic species, all of which contribute to the region's rich marine biodiversity. The Karnataka Veterinary Animal & Fisheries Sciences University (KVAFSU) in its College of Fisheries in Mangalore and its centres in Bengaluru has been instrumental in conducting biotechnological research in aquaculture which includes generation of monosex, uniparental and polyploid populations, transgenic fish, molecular biology, enhanced feeds and health management, and the creation of natural products from marine organisms. Centre of Excellence in Aqua Marine Innovation will be established in Mangalore region to support innovative ideas and encourage growth of marine biotech sector in the State.

The policy aims to give a special focus in seaweed cultivation for isolating bioactive metabolites that are valuable for food, pharmaceutical, cosmetic, nutraceutical and bio-based chemical industries





## Initiatives:

- 4.3.1** The Department of Electronics, IT, BT and S&T will supportback the Centre of Excellence in Aqua marine innovation in Mangalore to boost Aqua marine biotech research, aiming to enhance production and create new Aqua marine bioactive products, with a focus on seaweed bioprospecting.
- 4.3.2** An Aqua Marine Biotech Cluster, including several institutions and industries, will be established to provide training in Aqua marine agriculture, seaweed farming, and genetic improvement programs. Demo seaweed cultivation and processing plants will also be set up.
- 4.3.3** The Coastal Aquaculture Authority (Amendment) Act, 2023 expands aquaculture practices, allowing for environmentally friendly methods like cage culture, seaweed culture, and marine ornamental fish culture. It permits aquaculture units near the High Tide Line.
- 4.3.4** The Coastal Aquaculture Authority (Amendment) Act, 2023 streamlines regulations to encourage startups and industries in coastal regions, focusing on seed weed banks, seaweed cultivation, and marine ornamental fish culture. A committee will oversee funding and support, headed by the Secretary to Government - Department of Electronics, IT, BT and S&T.





## 4.4 SYNTHETIC BIOLOGY & BIO-DERIVED STRUCTURAL MATERIALS

The global synthetic biology market was \$13.09 billion in 2022 and is expected to grow at a rate of 18.97% till 2030. Synthetic biology focuses on engineering biological systems at different scales to aid research and product development. It offers solutions such as plant-based meats for food security, insect gene editing to fight malaria, large-scale microorganism production for carbon dioxide removal, and rapid vaccine development like mRNA vaccines. Synthetic biology can address major societal challenges such as climate change, biodiversity, sustainable manufacturing, and improving food and health systems. The synthetic biology group at IBAB Bengaluru has developed tools, reagents, and technologies for translational research, including template-less PCR, DNA vectors, and novel yeast expression vectors, facilitating the creation of customized genetic elements and new genes.



### Initiatives:

- 4.4.1** Karnataka would like to leverage the lead taken in establishing Synthetic Biology Group at IBAB by continuing the support to group for undertaking cutting edge research in creating synthetic biology tools and technologies having translational research and developing a pool of skilled and trained manpower in Synthetic Biology through education and training programs. The Synthetic Biology Group will forge alliance with national and international agencies to promote responsible research and development in synthetic biology to create awareness related to biosecurity, biosafety, and ethical implications among the researchers in the State. This initiative can promote the safe and ethical use of synthetic biology technologies, fostering public trust and acceptance of these advancements.
- 4.4.2** To encourage talented students and innovative startups participate in greater number from Karnataka in the iGEM (International Genetically Engineered Machine) competition conducted by iGEM Foundation, Cambridge MA, USA, a separate support funding scheme will be introduced. The funding and the scope of support required for this initiative will be decided by a committee headed by the Additional Chief Secretary to Government - Department of Electronics, IT, BT and S&T, constituting members drawn from VGBT, ABLE and representatives from Karnataka State Higher Education Council, IBAB, IISc, NCBS, BBC and C-CAMP.

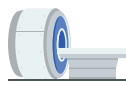


## 4.5 MEDICAL DEVICES & DIAGNOSTICS

The Indian medical devices industry is valued at \$ 10.22 billion as per the report published by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, with exports valued at \$ 2.51 billion and the domestic market standing at \$ 7.71 billion.

In Karnataka, the combined sub-segment of Medical Devices and Diagnostics is a major contributor to its total BioEconomy. It accounted for 35 percent share of the state's BioEconomy. The Medical Devices and Diagnostics services as a subsegment generated \$7 billion in value in 2022. Additionally, Karnataka is a major producer of PCR machines, medical IT, Insulin Pens, and Cardiac Stents and Implants. Manufacturers including GE Medical, Skanray, Biocon, and Bigtec Labs are developing these products

### Initiatives:



- 4.5.1** Bangalore Bioinnovation Centre (BBC) established a MedTech Accelerator with BIRAC support, aiding startups since 2017 to develop innovative medical technology products. Additionally, the Department of Electronics, IT, BT, and S&T, through the TBI Scheme, supported the Foundation for Science Innovation and Development (FSID), IISc to establish CPDMED TBI, focusing on Medical Technology and Geriatric Healthcare. The facilities provided include workspace and various testing services. Over 50 startups are incubated, and testing services are regularly offered to the industry. These initiatives will be strengthened by the proposed Centre of Excellence in Health-Tech and Med-Tech.
- 4.5.2** The state has announced the establishment of a Centre of Excellence in Health-Tech and Med-Tech, with an estimated cost of ₹. 50 crores. It will align with schemes from the Department of Pharmaceuticals, such as Promotion of Medical Device Parks and schemes for research and innovation in the pharma and MedTech sectors.
- 4.5.3** GoK- Manipal Biocubator established also caters to the requirements of the biomedical sector and the centre will be further strengthened.
- 4.5.4** Karnataka Innovation and Technology Venture Fund-5 (KITVEN Fund-5), a SEBI registered Category 1 Alternative Investment Fund, with a target corpus of ₹. 100 crore, focuses on investing in startups/SMEs developing Disruptive Technologies, including MedTech. The fund emphasizes equity investments, with a portion allocated for startups from tier-2/3 cities and women entrepreneurs.



## 4.6 AI/ML IN BIOTECHNOLOGY

In the field of biotechnology, the integration of artificial intelligence (AI) and Machine Learning (ML) has huge potential to accelerate research, improve precision, and foster innovation. By 2030, most drug discovery processes will be conducted in Silicon through computer modelling or simulation. AI technologies will also personalize medical treatments based on individual genetic, environmental, and lifestyle factors as AI-driven platforms can analyse patient data to provide tailored treatment plans and optimize therapeutic outcomes. AI-powered tools for mining and analysing large-scale biological datasets can uncover valuable insights and patterns, and also analyse molecular and cellular data to identify specific biomarkers associated with disease progression, prognosis, and treatment response, thereby facilitating early diagnosis and personalized therapies.

Integrating AI technologies into bioprocessing can enhance production efficiency and cost-effectiveness in production of biopharmaceuticals, enzymes, and other biotechnological products. Optimization of agricultural practices, crop breeding, and genetic engineering can be fostered by AI-based systems that can analyse environmental data, predict crop yield, and identify genetic traits that enhance crop resilience and nutritional value, thereby contributing to sustainable agriculture and food security





## Initiatives:

- 4.6.1** The Bio-IT Centre at IBAB, ARTPARK, CoE for IoT& Data Sciences and International Institute of Information Technology Bengaluru (IIIT-B) all supported by Department of Electronics, IT, BT, and S&T will be encouraged to develop AI tools and methodologies that is specifically useful for the biotechnology sector.
- 4.6.2** A dedicated Resource Centre to encourage and support Innovative startups applying or developing AI tools supporting biotechnology sector will be housed in one of the above-mentioned centres to support and create networking opportunities and learning from AI Experts and Practitioners. The Resource centre will also conduct acceleration program specifically targeted to support SMEs and startups working on AI-based products/services that align to biotechnology sector.
- 4.6.3** Government will support conducting "AI for Good" program jointly by the above-mentioned centres in consortia to identify and nurture startups and enterprises who have promising AI solutions to address some of the most common and complex problems faced that will include the biotechnology sector.

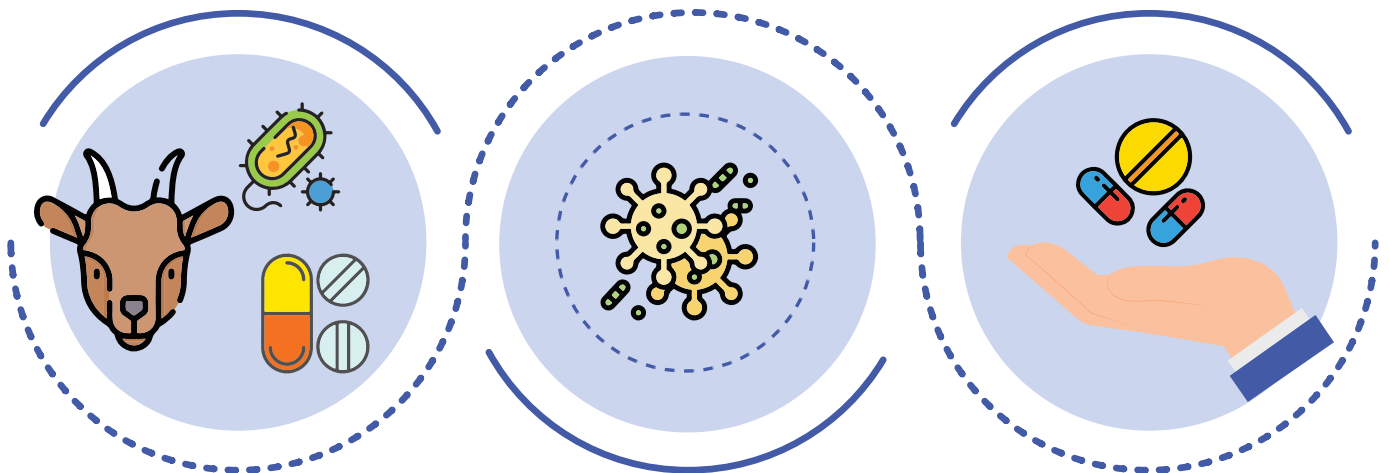




## 4.7 ANTIMICROBIAL RESISTANCE

Antimicrobial resistance (AMR) has become a persistent global public health issue, with an estimated 10 million deaths annually by 2050. Indian Council of Medical Research has taken initiatives to develop new drugs /medicines through international collaborations to strengthen medical research in AMR through AMR Research & International Collaboration.

The Health and Family Welfare Department, Government of Karnataka, the nodal agency has established Anti-microbial Resistance (AMR) Cell and in place are the committees constituted to control and monitor both at State and District levels along with having State-level Technical Advisory Committee.



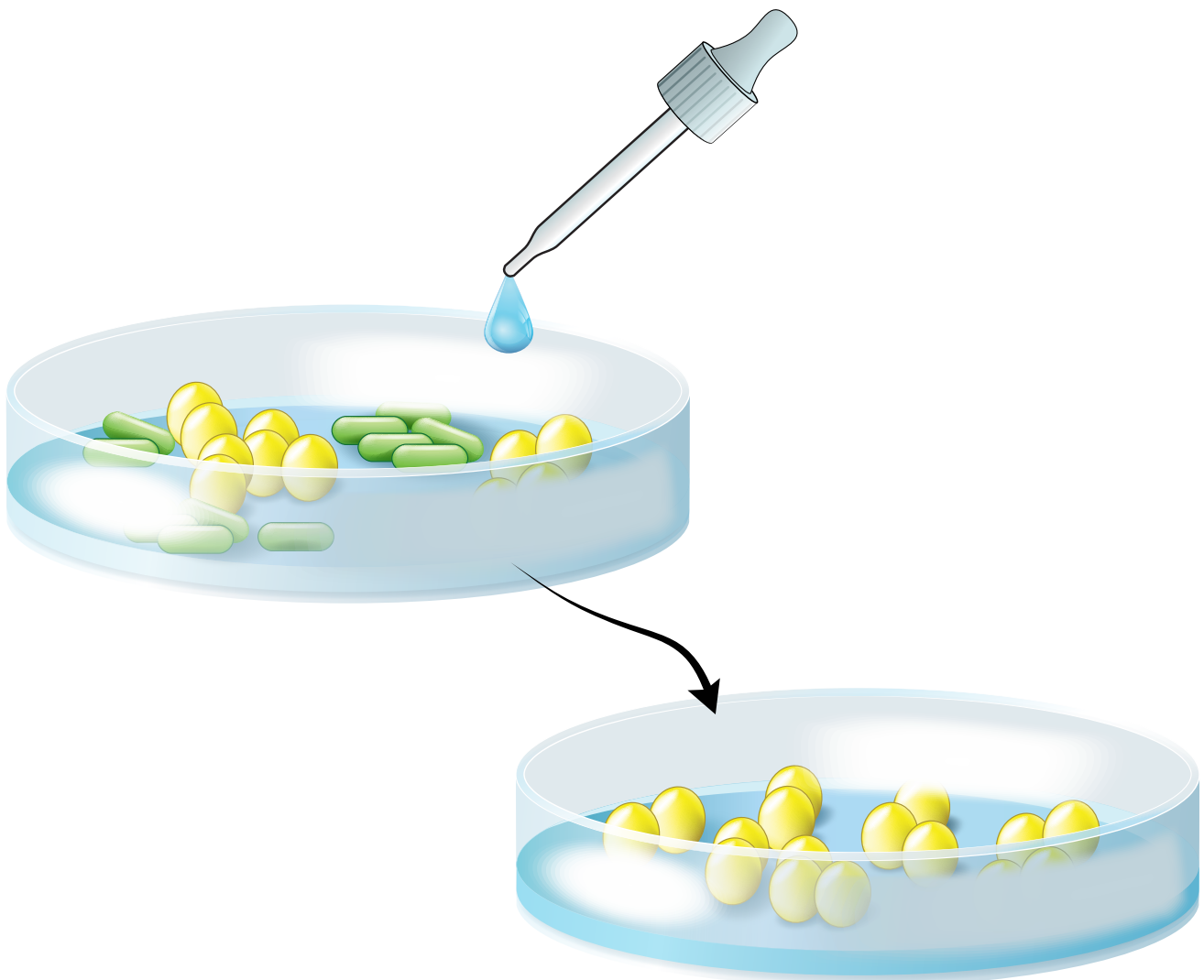
### Initiatives:

- 4.7.1 Identifying high-risk strains and their resistance.
- 4.7.2 Developing rapid diagnostics tests to differentiate between bacterial and viral infections.
- 4.7.3 Discovery and development of a sustainable supply of effective new antimicrobials.
- 4.7.4 Developing informatics tools for linking human and animal diseases surveillance for better mapping and prediction of emerging diseases threat.





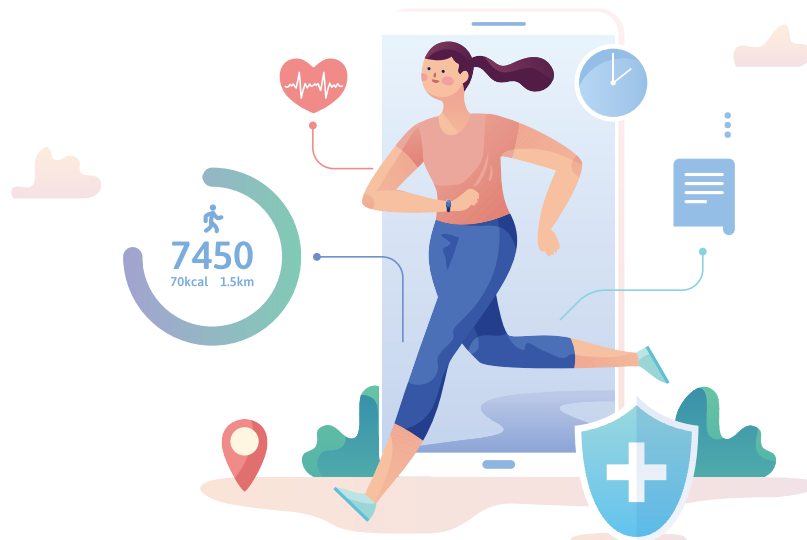
- 4.7.5** Promoting the development and uptake of genomic technologies to improve appropriate, prompt, patient treatment.
- 4.7.6** Enhance understanding and supporting data for AMR containment through surveillance- establishing a referral laboratory.
- 4.7.7** Support the creation of open and sustainable clinical trial networks globally, with our expertise and experience.
- 4.7.8** The funding support for promoting research activities and development of novel solutions in this area will be extended under the existing schemes/programs made available under the Startup, R&D and Innovation and ER&D Policies of the State.





## 4.8 MULTI-OMICS FOR HEALTH

The innovation of Next Generation Sequencing (NGS), often seen as the foundation of personalised medicine, has been successfully implemented in immunotherapy and oncology diagnostics. India has seen an increase in genome sequencing in recent years. Government bodies are also increasingly recognising the importance of these advancements and turning to genomic research to provide personalised healthcare for patients. The Department of Biotechnology, Government of India approved the inclusion of six private genomic sequencing labs into the Indian SARSCoV-2 Genomics Consortium (INSACOG). Four of these labs were from Karnataka. The Bio-IT centre in IBAB has attracted enormous funding from the Department of Electronics, IT, BT and S&T, GoK to train students and carry out research in the area of genomics, taking advantage of the NGS facility at the Centre.



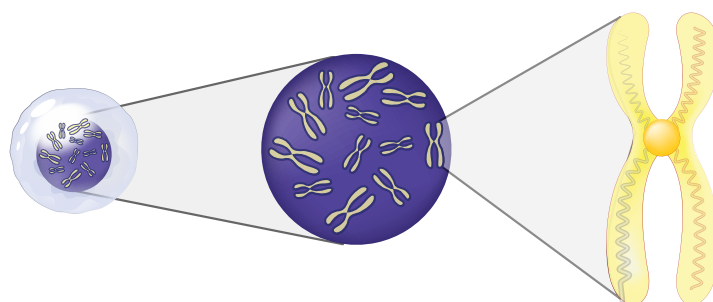
### Initiatives:

- 4.8.1** To further expand Karnataka as a cluster for Advanced Genome Bioinformatics-Omics, the government will continue to make use of the existing infrastructure at IBAB and CHG.
- 4.8.2** The state is already working towards developing its genome database by utilising the rich biodiversity. The Genome Database will serve as the main repository for DNA, plant, and animal tissues, including those of Karnataka's endangered and commercially significant species.
- 4.8.3** Focused based training programs on genome-based data analysis that allows researchers to uncover valuable insights from the vast amount of data generated from sequencing a genome.
- 4.8.4** The government shall continue to promote large-scale omics and bioinformatics projects with special focus on single-cell genomics.



## 4.9 CELL AND GENE THERAPIES FOR RARE DISEASES

It is anticipated that the Cell and Gene Therapy market will almost triple in size over the next five years, reaching to \$19.9 billion in 2027. CRA is developing at a very rapid rate. The Food and Drug Administration (FDA) approved the first CAR-T therapy just six years ago. There are currently six CAR-T products with FDA approval. Central Drugs Standard Control Organisation's (CDSCO) has granted marketing authorisation approval of the first humanised CD19-targeted Chimeric Antigen Receptor T cell (CAR-T cell) therapy product for relapsed/refractory B-cell lymphomas and leukaemia in India. Home grown companies like Stempeutics Research, Immuneel Therapeutics, Eystem Research, etc., have either have products in the market or in advance stages of clinical trials. These companies coupled by the research and teaching that is going on in IISc., InSTEM, Manipal Institute of Regenerative Medicine, etc., has enabled to have strong cell and gene therapy ecosystem in Karnataka.



### Initiatives:

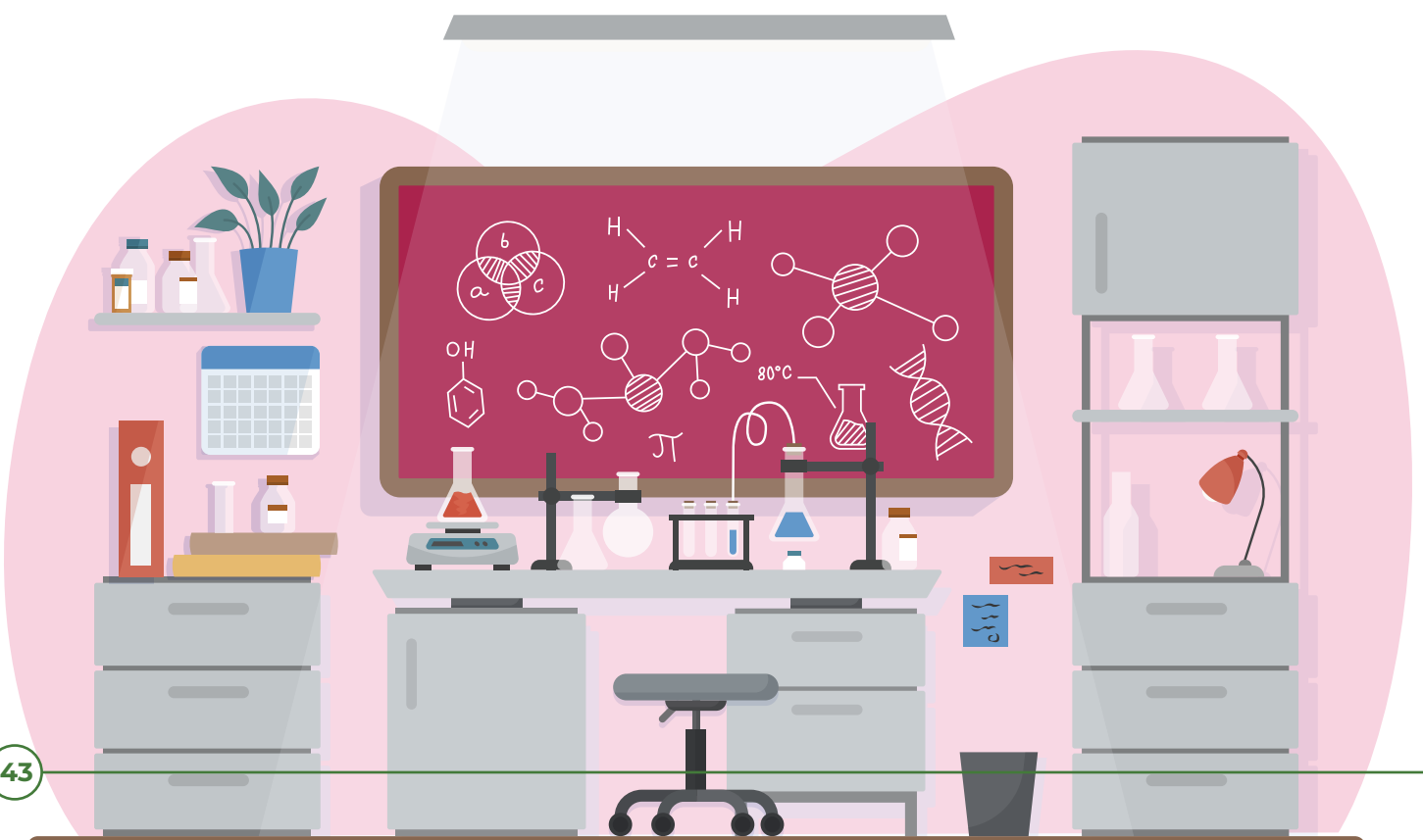
- 4.9.1** Recent advancements in molecular biology and genetics tools and technology have led to an increased demand for meticulously annotated and appropriately preserved cells and tissue samples. Government has therefore approved setting up of Biobank facility with an estimated budget of ₹.5 crores at BBC. The facility will be operationalised soon and the availability of a large collection of patient samples (with well-annotated patient clinical and pathological data) will be made available to the researchers, startups and industry which is a critical requirement to advance patient treatment.
- 4.9.2** The Institute of Advanced Genome Editing and Gene Therapy is being established in the Centre for Human Genetics (CHG) campus. Support for conducting short-term skill upgrading training programs in Cell and Gene therapy will be provided to create a talent pool and growth of the prevailing ecosystem.
- 4.9.3** To establish scale-up infrastructure for the start-ups to aid them till commercialization stage under the proposed green field Bio Foundries (Bio Manufacturing Hub) at Bengaluru Helix Biotech Park envisaged in the (PPP) mode.



## 4.10 SPACE BIOTECHNOLOGY

The Indian space economy has the potential to grow to \$44 billion by 2033 from its current value of \$8.4 billion, and Karnataka's space ecosystem is ideally positioned to capitalise on this growth. To leverage its potential in the space sector and attract investment, State Government has plans to have a separate space policy to encourage innovation and manufacturing, with a focus on increased private participation, global collaboration, and partnerships. Karnataka has the inherent advantage of having a huge space sector with highest number of institutions related to the sector - ISRO being the major one having its headquarters in Bengaluru, Karnataka.

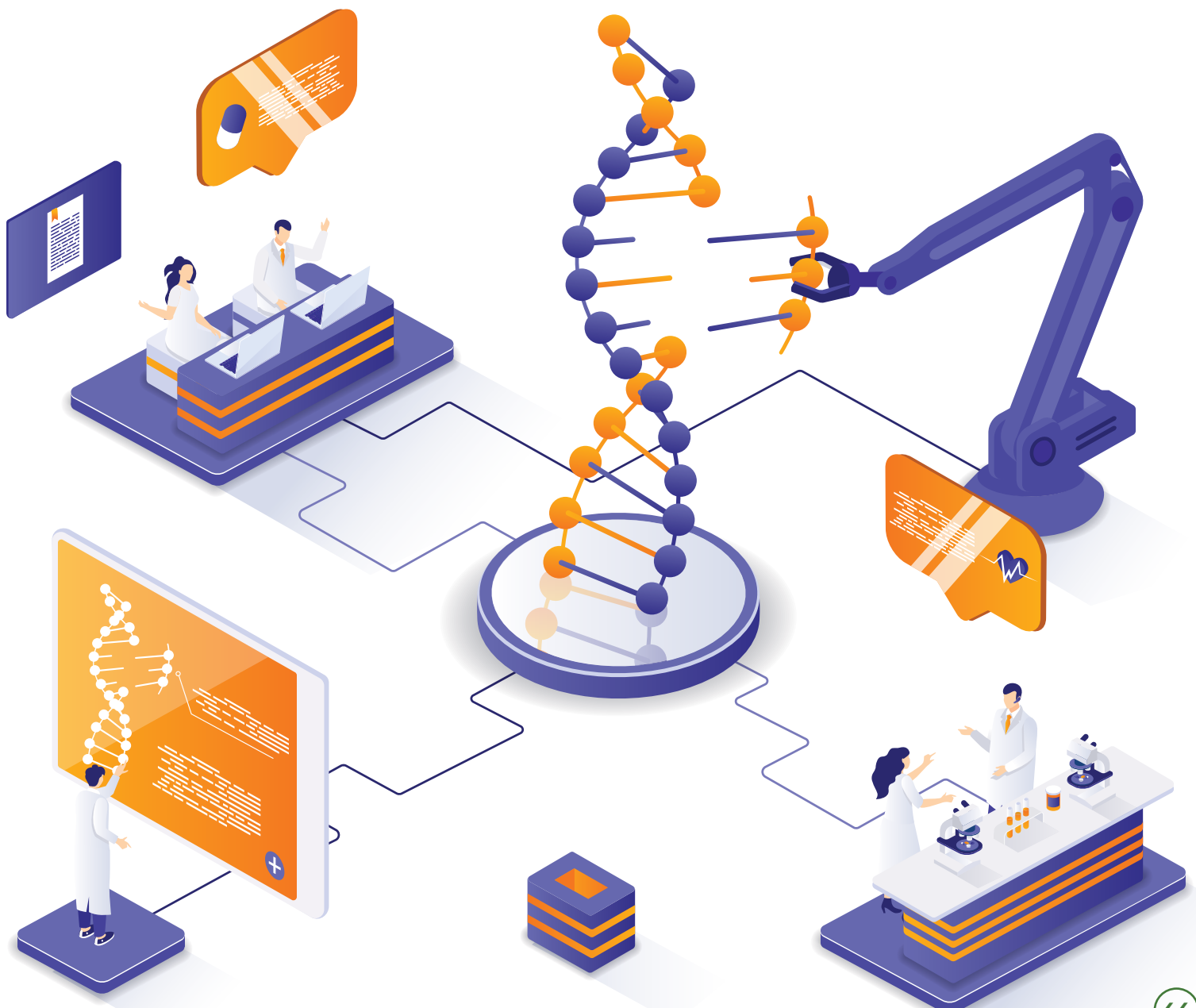
DBT and GoI has identified Space Research as one of focus sub-sector under its new initiative for Fostering High Performance Biomanufacturing. The State would like to capitalise the presence of Human Space Facility Centre and Institute of Aerospace Medicine and focus on encouraging activities related to biological experiments in microgravity, bioengineering for long-duration space missions, biomedical research for space exploration, bioinformatics and data analysis in space biology and developing biologics to treat space-related health issues. All these areas significantly advance our understanding of life in space and drive innovation in the fields of medicine, agriculture, and environmental sustainability.





## Initiatives:

- 4.10.1** The proposed greenfield Bio Foundries at Bengaluru Helix Biotech Park envisaged in the (PPP) mode with financial co-sharing to co-create integrated infrastructure for access by start-ups and research communities engaged in biomanufacturing. The facility to undertake space research (microgravity and radiation physiology) will be made available as part of the Bio Foundry.
- 4.10.2** The funding support for promoting research activities and development of novel solutions in this area will be extended under the existing schemes/programs made available under the Startup, R&D and Innovation and ER&D Policies of the State. Equity investment through (KITVEN Fund-5) will also be undertaken.





# 5. FISCAL INCENTIVES AND CONCESSIONS

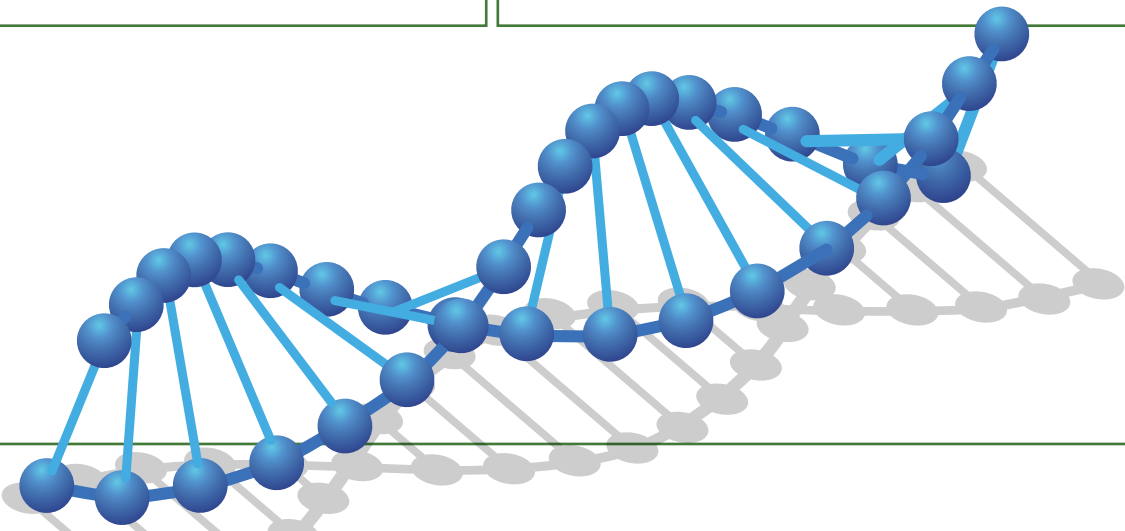
The companies that can be defined as Biotechnology Entity must register with KITS, Department of Electronics, IT, BT, and S&T, Government of Karnataka under Biotechnology Policy to avail the financial incentives and Concessions announced in this policy.

In order to promote development of industries (Startups, MSMEs, Large Scale Industries) the following Fiscal incentives are offered. The Operational Guidelines for disbursement of incentives are also published.



## FISCAL INCENTIVES FOR STARTUPS

| SL .NO. | INCENTIVE  | DETAILS  |
|---------|--|--|
| 1       | <b>State GST Reimbursement</b>   | Startups registered in Beyond Bengaluru Urban district with a maximum annual turnover of ₹ 1 Crore shall be eligible for 100% reimbursement of annual SGST .   |
| 2       | <b>Marketing Cost Reimbursement</b>  | Reimbursement of 30% of the actual costs of maximum of ₹ 5 lakhs per year  |
| 3       | <b>Patent Cost Reimbursement</b>   | Reimbursement upto a limit of ₹ 2 Lakhs for each Indian patent and ₹ 10 Lakh for each international patent. Cap is ₹ 50 Lakhs for the policy period.   |
| 4       | <b>Quality Certification cost Reimbursement</b>                                    | 50% reimbursement of cost of quality certification fee with an overall ceiling of ₹ 6 Lakhs per startups   |
| 5       | <b>Capital Cost Reimbursement for Biotechnology Incubation/Acceleration Centre</b> | <p>For outside Bengaluru urban and Bengaluru rural district Biotechnology Incubation /Acceleration centre - <b>A one-time capital grant of maximum 50% or ₹ 1 Crore (whichever is less) for Fixed Cost Investment (FCI) excluding land &amp; building.</b></p> <p>For outside Bengaluru urban and Bengaluru rural district Biotechnology Incubation /Acceleration centre - <b>Support for Upgradation/Expansion a one-time capital grant of 50% FCI (excluding land and building) with ceiling of ₹ 50 Lakhs</b></p> |





## FISCAL INCENTIVES FOR MSMES

| SL .NO. | INCENTIVE                                       | DETAILS  |
|---------|---|--|
| 1       | <b>Patent Cost Reimbursement</b>                | 75% of patent costs will be reimbursed subject to maximum ₹ 2 lakhs per Indian patent and INR 10 lakhs per international patent. Cap is ₹ 50 Lakhs for the policy period.  |
| 2       | <b>Marketing Cost Reimbursement</b>             | <p>a) 50% cost of registration, travel, boarding and lodging expenses will be reimbursed for international marketing events, trade shows, and conferences subject to maximum ₹ 5 Lakhs per year.</p> <p>b) 50% cost of exhibition stall rentals in any of the above international marketing events, trade shows, and conferences will be reimbursed subject to maximum ₹ 5 Lakhs per year. Cap is ₹ 50 Lakhs rupees for policy period.</p> |
| 3       | <b>Quality Certification Cost Reimbursement</b> | Reimbursement of up to 50% of quality certification charges incurred for getting the products certified from any lab domestic/abroad. Cap is ₹ 50 Lakhs in the period.   |
| 4       | <b>Prototyping Cost Reimbursement</b>           | Reimbursement of 50% of the costs incurred for developing a prototype of a product subject to an upper limit of ₹ 10 Lakhs per product with an allowance of a maximum of 5 sanctions per company for the policy period.  |
| 5       | <b>Interest Subsidy</b>                         | Interest subsidy of 6% for loan upto ₹ 50 Lakhs not exceeding 8 years, only in case of new investment and not expansion.   |
| 6       | <b>Land Conversion Incentive</b>                | 100% reimbursement of land conversion fee for MSMEs.   |
| 7       | <b>Power Tariff Concession</b>                  | Recommendation certificate will be provided for concession on Industrial Power Tariff.   |





8

### Stamp Duty Exemption

100% exemption on Stamp Duty for MSMEs in respect of loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing loans from State Financial Corporation, National Level Financial Institutions, Commercial Banks, Regional Rural Banks, Co-operative Banks, Khadi and Village Industries Board, Khadi and Village Industries Commission, Karnataka State SC/ST Development Corporation, Karnataka State Minority Development Corporation and other institutions which may be notified by the Government from time to time for the initial period of five years only and for lease deeds, lease-cum-sale, sublease and absolute sale deeds executed by industrial enterprises in respect of industrial plots, sheds, industrial tenements, flatted factories by Karnataka Industrial Areas Development Board, Karnataka State Small scale Industries Development Corporation, KEONICS, Industrial Co-operatives, approved private industrial estates/parks, food parks, SPV formed by GoK / GoI and other approved industrial parks shall be exempted.

**Note:**

**i.** The exemption of stamp duty and concessional registration charges are also applicable to lands purchased under Section 109 of the KLR Act, 1961 and also for direct purchase of industrially converted lands for the projects approved by SLSWCC / DLSWCC. This incentive will also be applicable for the land transferred by KIADB to landowners as compensation for the acquired land.

**ii.** The exemption of stamp duty and concessional registration charges are also available for registration of final sale deed in respect of lands, sheds, plots, industrial tenements after the expiry of the lease period at the rate as specified in the Industrial Policy which was in vogue at the time of execution of lease-cum-sale deed



## FISCAL INCENTIVES FOR LARGE SCALE INDUSTRIES

| SL .NO. | INCENTIVE                                       | DETAILS  |
|---------|---|--|
| 1       | <b>STP Cost Reimbursement</b>                   | One-time capital subsidy (excluding land & building) of maximum INR 1 crore for setting up Sewage Treatment Plants (STPs) in Biotechnology Parks   |
| 2       | <b>Rain Water Harvesting Cost Reimbursement</b> | 50% cost of equipment will be reimbursed up to ₹ 2 Lakhs for rainwater harvesting  |
| 3       | <b>Interest Subsidy</b>                         | Interest Subsidy of 6% for loan upto ₹ 1 crore, not exceeding 8 years only in case of new investments and not expansion  |
| 4       | <b>Land Cost Reimbursement</b>                  | 10% subsidy subject to a maximum of ₹ 1 Crore on land cost upto ₹ 10 Crore outside Zone 3 (Zones as defined in the Karnataka Industrial Policy 2020-25)  |
| 5       | <b>Production Linked Incentives</b>             | Enterprises which are not classified as Medium Enterprises but have investments on fixed assets of up to ₹ 250 crore. Minimum direct Employment 50 Numbers for first ₹ 50 crore & additional 35 employment for every additional investment of ₹ 50 crore proportionately. Investment promotion subsidy based on turnover from the date of commencement of commercial production as below: <ol style="list-style-type: none"> <li>1) 2.25 turnover percentage for maximum 7 years with VFA limit of 45% in Zone 1</li> <li>2) 2.25 turnover percentage for maximum 7 years with VFA limit of 40% in Zone 2</li> <li>3) Not applicable for Zone 3</li> </ol> |
| 6       | <b>Patent Cost Reimbursement</b>                | 75% of patent costs will be reimbursed subject to maximum ₹2 lakhs per Indian patent and ₹ 10 lakhs per international patent. Cap is ₹ 50 Lakhs for the policy period  |



|   |                                     |  |
|---|-------------------------------------|--|
| 7 | <b>Power Tariff Concession</b>      | Recommendation certificate will be provided for concession on Industrial Power Tariff.   |
| 8 | <b>Marketing Cost Reimbursement</b> | 60% cost of registration, travel, boarding and lodging expenses will be reimbursed for international marketing events, trade shows, and conferences. 60% cost of exhibition stall rentals in any of the above international marketing events, trade shows, and conferences will be reimbursed. Cap is maximum ₹ 5 Lakhs per year. Cap is ₹ 50 Lakhs for the policy period. |





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