



REPORT

BIOTECH STARTUP EXPO-2022

9-10 JUNE, 2022

*BIOTECH STARTUP INNOVATIONS: TOWARDS AATMA NIRBHAR
BHARAT*





BACKGROUND

Biotechnology sector – the sunrise sector is recognized as one of the key drivers for contributing to India's economy target of USD 5 Trillion by 2025, and poised to grow exponentially over the next decade. Policy initiatives of Government of India such as *Make-in-India* scheme are aimed to develop India as a world-class Bio-manufacturing hub. India is among the top 12 destinations for biotechnology in the world and 3rd in Asia-Pacific. With Global Innovation Index improving to 46th rank in the backdrop, India's bioeconomy is growing in double digits Year on Year, from \$51 Bn in 2018 to \$81 Bn in 2021. Covid pandemic witnessed the critical impact of made in India novel Vaccines, Diagnostics, Healthcare delivery and management solutions endorsing India's growing strength towards AatmaNirbhar Bharat.

Growth of biotech innovation ecosystem in the country is widely seen at National and International levels which is anchored by Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India and its Public Sector Undertaking, Biotechnology Industry Research Assistance Council (BIRAC).

BIRAC, set up by DBT on 20th March 2012, acts at the Industry-Academia Interface to strengthen and empower the emerging Biotech enterprises, to undertake strategic research and innovation, addressing nationally relevant product development needs. Since its inception, BIRAC has initiated several schemes, networks and platforms that help to bridge the existing gaps in the industry-academia innovation research and facilitate novel, high quality affordable product development through cutting edge technologies. BIRAC has established partnerships with several national and global partners to collaborate and deliver the salient features of its mandate.

BIRAC's mandate is to foster and promote innovation research and development of products/technologies in biotech sector by industries, especially startups and SMEs to address unmet needs. It acts at the interface of Industry and Academia to inculcate the spirit of biotech entrepreneurship for knowledge translation. BIRAC has been nurturing the biotech ecosystem in the country over these 10 years aligning with the National Missions of *Startup India* and *Make-in-India*. Today, there are 5000+ biotech start-ups in the country i.e., a 10x growth from 2012. This vibrant pool base is expected to grow further to 10,000 start-ups by 2025. Nation has witnessed 1100+ IP wealth creation, 700+ biotech products reaching the market from a subset of 1500+ startups, entrepreneurs incubated in BIRAC's 64 Bioincubators. It also supports product development such as clinical trials which require much higher funding assistance. Common access, sub-sector specific-capacity enhancement facilities, Clinical trial network sites, Technology Transfer Offices, Regional Biotech Entrepreneurship promotion centres, Investors platform like BioAngels, Fund of Funds, have also been established by BIRAC, creating a nationwide support network for startups, academia and industry.



Covid pandemic witnessed the critical impact of Made-in-India novel vaccines, diagnostics, healthcare delivery and management solutions endorsing India's growing strength towards AatmaNirbhar Bharat. Combined efforts of government, Industry and academia demonstrating an exemplary collaborative synergy worked together to address the pandemic challenges. The success can be attributed to the government investment in capacity building, technology and skilled human resource development.

Biotech Startup is another key dimension of the growth of Biotech prowess in the country. To celebrate the achievements and growth of the biotech ecosystem; and the significant role of BIRAC towards the same during the last 10 years, 'Biotech Startup Expo-2022' was organized on 9-10th June, 2022 at Pragati Maidan, New Delhi.

BIOTECH STARTUP EXPO-2022

The Biotech Startup Expo-2022 was organized by the Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India together with its Public Sector Undertaking, Biotechnology Industry Research Assistance Council (BIRAC). This event was co-partnered with Ministry of Science and Technology; Department for Promotion of Industry, and Internal Trade (DPIIT), Ministry of Commerce; Ministry of Higher Education (Universities, AICTE and IITs) and Department of Science and Technology (DST).

The event was attended by more than 6,000 participants representing all the stakeholder segments of the biotech ecosystem.

On 9th June, 2022, the Biotech Startup Expo-2022 was inaugurated by the esteemed presence of Shri Narendra Modi, Hon'ble Prime Minister of India, in the presence of the Union Ministers Shri Piyush Goyal, Minister of Commerce and Industry; Minister of Consumer Affairs, Food and Public Distribution; and Minister of Textiles; Shri Dharmendra Pradhan, Minister of Education and Minister of Skill Development and Entrepreneurship; and Dr Jitendra Singh, Minister of State (Independent Charge) Ministry of Science and Technology; Ministry of Earth Sciences; Minister of State Prime Minister's Office; Ministry of Personnel, Public Grievances and Pensions; Department of Atomic Energy and Department of





Space, Govt of India. The 300 exhibitors included Startups, Incubation Centres, Research Institutions, and other Enablers. Stakeholders of biotech sector including entrepreneurs, startups, experts, SMEs, Industry, academia, researchers and investors were present during the event. 75 Universities from across the country also joined online during the Inaugural ceremony and also conducted satellite events across the country.

Dr. Rajesh S. Gokhale, Secretary, DBT welcomed the Hon'ble Prime Minister, Union Ministers, dignitaries and the biotech fraternity following which Dr. Jitendra Singh, Minister of State (Independent Charge), Science and Technology addressed the participants. He congratulated BIRAC on the occasion, emphasized the vision of the Hon'ble Prime Minister in this sector, and encouraged the biotech community to proactively contribute towards a self-reliant India.

During his inaugural address, the Hon'ble Prime Minister said that "India's bio-economy has grown 8 times in the last 8 years; and India is not too far from reaching the league of top-10 countries in Biotech's global ecosystem". The Prime Minister also noted the contribution of BIRAC in the development of the biotech sector in the country. The Prime Minister further cited five reasons for India to be considered a land of opportunities in the field of biotech:

1. Diverse population and diverse climatic zones
2. India's talented human capital pool
3. Increasing efforts for ease of doing business in India
4. The demand for Bio-Products is increasing continuously in India
5. India's Biotech Sector and its track record of success.





He also emphasized that of the 70,000 startups in India today, every 14th startups in the biotech sector; and that more than 1,100 such biotech startups have emerged in the last one year. He added that the number of investors in biotech sector has risen by 9 times and biotech incubators and funding for them has increased by 7 times since 2014. The number of biotech products developed in India has also increased significantly. The Hon'ble Prime Minister launched an e-portal for 750 Biotech products developed in India towards an AatmaNirbhar Bharat (<https://biotechinnovations.com>).



The Hon'ble Prime Minister congratulated BIRAC and its partners for attracting the younger generation of the country and for presenting the potential skill-sets of the country to the world. He urged BIRAC to start working on the goals and actionable points for achieving eminence on completion of 25 years.

The detailed programme of the two-day event is placed at Annexure 1.



Panel Discussion

The inaugural session was followed by a panel discussion on '*Future Trajectory of Bioeconomy in Biotech Sector and Action Plan for Vision@2047*' with experts, policy makers and biotech industrialists. The session was moderated by Dr. Rajesh S. Gokhale, Secretary, DBT, GOI.

The panel deliberated on the growth of Indian bioeconomy, the current status and way forward.



CEO Roundtable



A CEO roundtable with Secretary DBT was also convened to understand the priorities, expectations, requirements and issues of the industry; and to brainstorm for better synergies between the policy makers and industry.

Key Recommendations:

- Vision with branding important for biotech sectorial growth;
- Scale up Biotech Startup Ecosystem through capacity building, enhanced collaboration and delivering cutting edge technology products;
- Enhance and facilitate academic-industry partnership for end-to-end product development.

The Exhibition

The Biotech Startup Expo exhibited a large number of stakeholders in the biotech domain from across the country including 150 startups, 75 bioincubators, DBT autonomous institutes, BIRAC partners and regional centres, flagship programmes such as Grand Challenges India, etc.

The public hours of the Biotech Startup Expo witnessed a large footfall of personnel from industry, academia, research institutions and startups; policy makers and representatives from government ministries including PMO, NITI Aayog, DPIIT, CSIR, DSIR; investors; international agencies and scholars from research organizations. The event provided a networking platform bringing together all stakeholders of the biotech sector under one roof and facilitating useful interactions.

Biotech StartupExpo-2022 displayed this new facet of scientific innovation and entrepreneurship that has rapidly grown in last





8-10 years. With a total population of 1.3 billion, 50% being under the age of 25, India has a large pool of young and skilled workforce. This expo showcased new opportunities for younger generation to embrace in field of Biotechnology. The Biotech Startup Expo provided valuable knowledge to the youth of our country about potential applications of biotechnology in various other fields such as healthcare (development of vaccines, diagnostics, devices, and implants); genomics; biopharma; agriculture, industrial biotechnology; waste-to-value and clean energy from innovation leaders in the country.

Startup Pitching session and B2B meetings

On Day 2 of the event, i.e., 10th June 2022, Startup Pitching sessions and B2B meetings were convened. Out of a pool of 2500+ BIRAC supported projects, 75 mature biotech startups in different sub-sectors – Healthcare, Biopharma, Agriculture, Industrial Biotech, Medtech Devices, Diagnostics, Waste to Value and Clean Energy were provided the opportunity to pitch their innovations to an audience of industry leaders, industry associations (ABLE, AIMED, FICCI, CII, FSII and others), manufacturers, investors (including IVCA, Bio-Angels, other angels and VC network, BIRAC's AcE Fund



partners, etc.); experts and mentors. A follow through engagement of 96 Startups at fund raising stage with Investors was also undertaken to facilitate further discussions. The provision of B2B meeting area in the exhibition arena provided a conducive environment for parallel 25 free-flow business interactions at any given time. The area remained busy for both days with impromptu, informal and formal engagements among the delegates including exhibitors, visitors, business and technical experts with entrepreneurs, startups, investors and other stakeholders. Since the delegates had come from across the country, the B2B meeting area provided a perfect interactive place.

Way Forward

The last session of the event was graced by Dr. Jitendra Singh, Hon'ble Minister of Science and Technology, GOI with an opening address by Dr. Rajesh S. Gokhale, Secretary DBT and Chairman BIRAC. The Hon'ble Minister released the following booklets highlighting the significant achievements made by the biotech sector in recent years:

1. 75 Biotech products developed during the 75th year of Independence

(https://www.birac.nic.in/webcontent/75_Biotech_Startup_Products_2022.pdf)

2. Compendium of 75 Women Biotech Entrepreneurs

(https://www.birac.nic.in/webcontent/75_Women_Enterprenuers_2022.pdf)



The session included experience sharing by Mr Harsimar Bir Singh, co-founder 'Pristyn Care' - a Unicorn, with the participants. Common issues faced by startups during their journeys, troubleshooting and best practices for startups were some of the aspects discussed.



The Hon'ble Minister, in his address to participants, applauded the innovative initiatives and achievements of the startups during recent years and encouraged them to proactively pursue their innovations and be the torchbearers of the Indian bioeconomy growth towards an AatmaNirbhar Bharat.

Dr. Alka Sharma, MD BIRAC and Senior Adviser, DBT addressed the gathering recapitulating the Biotech Start-up Expo 2022 highlights which are as follows:

- Expand scope of commercialization of biotech interventions in all sectors;
- Support development of natural product-based drug discovery;



- Leverage emerging IT platforms and data science technologies for safe data sharing.
- Promote collaborative research for zoonotic diseases impacting human health
- Invest in preventive measures for animal health and biosecurity.
- Emerging technologies in agriculture to improve farmer productivity, conserve biodiversity and enable food security;
- Support clinical research in nutrition
- Research on Bio-fuels; Bio-degradable plastics; Value added products from agri-waste
- Enhance multidisciplinary academic and scientific research with international partners
- Wise investment in high risk- high reward projects;
- Atmosphere of risk mitigation for investors and return on investment;
- Tax incentives for Venture Capital investments in India to be considered.
- Partnership with FDA to get recognition for Indian regulatory processes

The event was concluded with Vote of thanks presented by Dr..Subhra R. Chakrabarti, Director (Operations), BIRAC.



Annexure I



Biotech Startup Expo-2022

Biotech Startup Innovations: Towards AatmaNirbhar Bharat

9-10th June, 2022

Venue: Pragati Maidan Hall no 5

Program

Day 1 – Thursday, 9 th June, 2022	
10:30-12 Noon	Inaugural Session
12:00-14:00	Panel Discussion <i>Future Trajectory of Bioeconomy in Biotech Sector and Action Plan for Vision @2047</i> Moderated by: Dr. Rajesh S. Gokhale, Secretary Department of Biotechnology (DBT) & Chairman, Biotechnology Industry Research Assistance Council (BIRAC)
14:00-15:00	Lunch
14:00-16:00	<i>Luncheon meeting by invite only</i> <ul style="list-style-type: none">• CEO roundtable meeting with Secretary, DBT
14:00-18:00	Biotech Startup Expo: <u>Public hours:</u> <ul style="list-style-type: none">• Openhouse interaction and networking of Start-ups with Scientists and Scholars from Universities and Institutes of DBT, DST, CSIR and IITs

75 Universities conducting Satellite events on 9th June, 2022 across the country



Day2–Friday,10thJune2022	
10:00-13:00	<p>B to B meetings and Startup Pitching</p> <p>75 Mature Biotech Startups from Healthcare, Biopharma, Agriculture, Industrial Biotech, Medtech Devices, Diagnostics, Waste to value and Clean Energy sub-sector out of a pool of 2500+ BIRAC supported projects.</p> <p>In parallel sessions, Startups will take up the stage to pitch for 5 min each in front of a panel of audience comprising of</p> <ul style="list-style-type: none"> • Industry leaders, MNCs, Manufacturers (individuals industry representatives and their associations like AIMED, ABLE, CII, FICCI, FSII, others) • Investors (including IVCA, Bio-Angels, BIRAC's AcE fund partners, DPIIT's/SIDBI supported AIFs, other Angels and VC network, HNIs) • Business Mentors (TIE group, NASSCOM) • Academia (Directors, professor, Senior Scientists, Scholars, Subject matter Experts, Mentors, experts)
13:00-14:00	Lunch
14:00- 16:00	<p>Biotech Startup Expo:</p> <p>Interaction and networking of Startups with Scientists and Scholars from Universities and institutes of DBT, DST, CSIR, and IITs</p>
16:00-17:30	<p>The Way Forward:</p> <ul style="list-style-type: none"> • Visit of Hon'ble Minister Dr. Jitendra Singh to Biotech Startup Expo-2022 <i>Minister of State (I/C) Ministry of Science and Technology; Ministry of Earth Sciences; Minister of State Prime Minister's Office; Ministry of Personnel, Public Grievances and Pensions; Department of Atomic Energy and Department of Space, Govt of India</i> • Welcome Remarks: Dr. Alka Sharma, MD BIRAC • Experience Sharing by Unicorn –Mr Harsimarbir Singh, Co-Founder, Pristyn Care • Remarks by Dr. Rajesh S. Gokhale, Secretary DBT and Chairperson, BIRAC • Release of Publications and Address by Hon'ble Minister <ul style="list-style-type: none"> ○ 75 Biotech products developed during the 75th year of Independence ○ Compendium of 75 Women Biotech Entrepreneurs • Vote of thanks