

'Bio-RIDE' Scheme Approved to Support Cutting Edge Research and Development in Biotechnology

The union cabinet has approved continuation of the two umbrella schemes of Department of Biotechnology (DBT), merged as one scheme – 'Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE)' with a new component namely Biomanufacturing and Biofoundry.

The scheme has three broad components:

- a) Biotechnology Research and Development (R&D)
- b) Industrial & Entrepreneurship Development (I&ED)
- c) Biomanufacturing and Biofoundry

The **Bio-RIDE scheme** is designed to foster innovation, promote bio-entrepreneurship, and strengthen India's position as a global leader in biomanufacturing and biotechnology. It aims to accelerate research, enhance product development, and bridge the gap between academic research and industrial applications. The scheme is part of the Government of India's mission to harness the potential of bio-innovation to tackle national and global challenges such as healthcare, agriculture, environmental sustainability, and clean energy. **Implementation of Bio-RIDE Scheme will -**

- **Promote Bio-Entrepreneurship:** Bio-RIDE will nurture a thriving ecosystem for startups by providing seed funding, incubation support, and mentorship to bio-entrepreneurs.
- **Advance Innovation:** The scheme will offer grants and incentives for cutting-edge research and development in areas like synthetic biology, biopharmaceuticals, bioenergy, and bioplastics.

- Facilitate Industry-Academia Collaboration: Bio-RIDE will create synergies between academic institutions, research organizations, and industry to accelerate the commercialization of bio-based products and technologies.
- Encourage Sustainable Biomanufacturing: A significant focus will be placed on promoting environmentally sustainable practices in biomanufacturing, aligned with India's green goals.
- Support researchers through Extramural funding: Bio-RIDE will play critical role in advancing scientific research, innovation, and technological development across diverse fields of biotechnology by supporting extramural funding to research institutions, universities, and individual researchers in areas such as agriculture, healthcare, bioenergy, and environmental sustainability.
- Nurturing human resource in Biotechnology sector: Bio-RIDE will provide holistic development and support to students, young researchers and scientists working in the multidisciplinary areas of Biotechnology. The integrated programme of human resource development will contribute towards the capacity building and skilling of the manpower and make them competent to leverage the newer horizon of technological advancements.

Further, to enable circular-bioeconomy in the country a component on biomanufacturing and biofoundry is being initiated in alignment with the recently launched 'Lifestyle for the Environment (LiFE)' to propel mitigation of global climate change by incorporating green and friendly environmental solutions in every aspect of life. This new component of Bio-RIDE aspires to nurture the immense potential of 'biomanufacturing' to facilitate development of indigenous innovative solutions to improve healthcare outcomes, enhance agriculture productivity, foster growth of the bioeconomy, scale-up and commercialization of bio-based products,

expanding India's cohort of highly skilled workforce, and intensifying entrepreneurial momentum.

The DBT's ongoing efforts align with its vision of harnessing the potential of biotechnology as a precision tool for national development and well-being of society to fulfill its mission to make India globally competitive in biotechnology research, innovation, translation, entrepreneurship, and industrial growth and be a US\$300 billion bioeconomy by 2030. The Bio-RIDE scheme will contribute significantly towards realizing the vision of 'Viksit Bharat 2047'.

The Knowledge and Learning Enterprise