

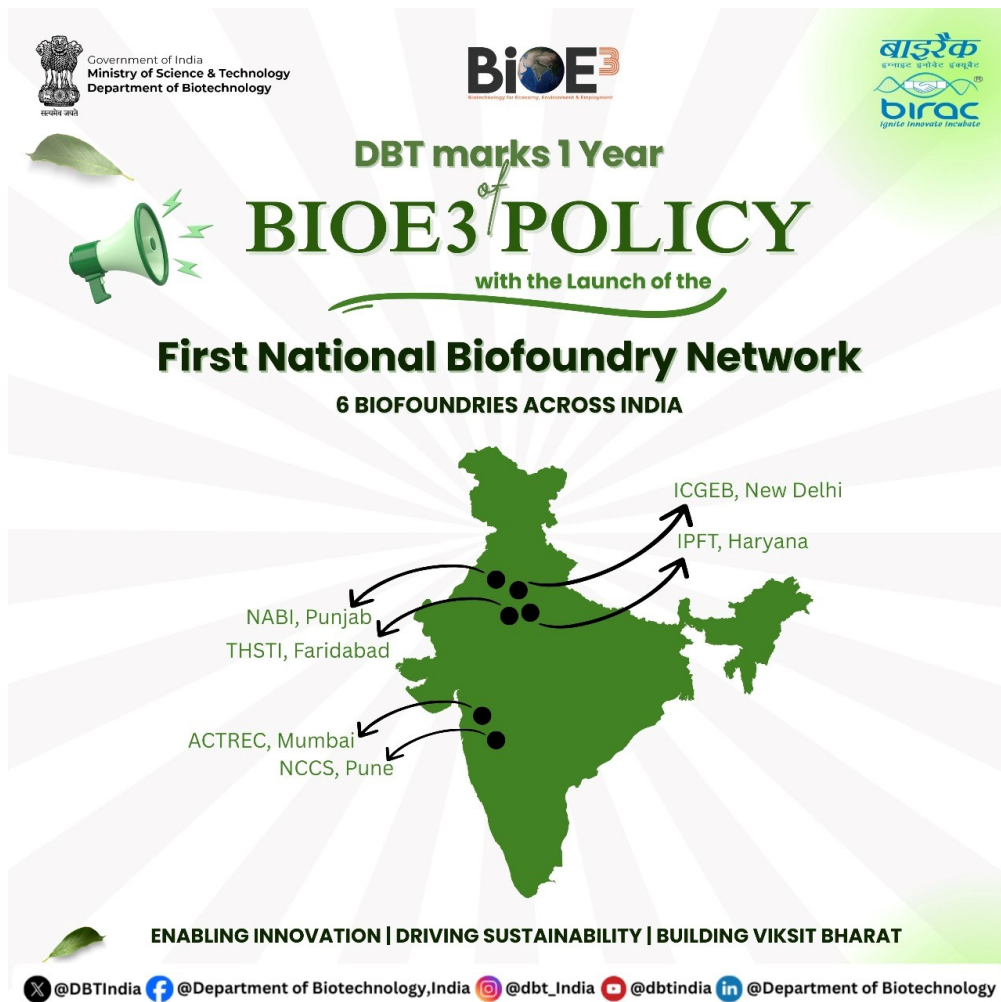
India's First National Biofoundry Network

Prelims - Current events of National and International importance| Science & Technology.

Why in News?

Recently, the Union Ministry of Science and Technology (S&T) launched the BioE3 Challenge for Youth and the country's first National Biofoundry Network.

- **Aim** - To accelerate biotechnology innovation, scale up biomanufacturing, and create jobs.
- **Launched in** - August 27, 2025.
- **Nodal Ministry** - Department of Biotechnology (DBT), Ministry of Science & Technology.
- **Objective** - To provide a collaborative platform for advancing research in areas like synthetic biology and sustainable biotech.
- **Institutional Collaboration** - It involves 6 institutions to help scale up opportunities.
 - International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi - **Microbial Biomanufacturing**
 - National Agri-Food and Biomanufacturing Institute (NABI), Punjab - **Agri-Food Bio-Mug**
 - National Centre for Cell Science (NCCS), Pune - **Bioengineering Research Centre**
 - Institute of Pesticide Formulation Technology (IPFT), Haryana - **Bio-botanical Pesticides**
 - Translational Health Science and Technology Institute (THSTI), Faridabad- **Bio-Enabler Hub**
 - Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Mumbai - **Advanced Cancer Cell Therapy Hub.**



BioE3 Challenge for Youth

- **BioE3** - Biotechnology for Economy, Environment and Employment.
- **Objective** - To empower grassroots innovators, foster youth-led change, and strengthen India's journey towards a sustainable and self-reliant bioeconomy.
- **Theme** - ***"Design Microbes, Molecules & More"***.
- **Participation** - It is open to ***school students (Classes 6-12)***, university students, researchers, faculty, startups and Indian nationals.
- Designing safe-by-default biological solutions addressing challenges in health, agriculture, environment and industry.
- **Awards** - The top 10 winning solutions each receive a cash award of ***Rs 1 lakh*** along with recognition and mentoring support.
- Funding of up to ***Rs 25 lakh*** will be provided to 100 selected awardees through the Biotechnology Industry Research Assistance Council (BIRAC).
- **Design framework** - It guides participants to define real needs,
 - Build Evidence-first solutions
 - Ensure Sustainability by design
 - Pursue Integration with other technologies and policies

- Develop strategies to Go-to-market.
- It creates a Net-positive impact through measurable outcomes in jobs, inclusion, and equitable access.

Quick Facts

- **The BioE3 Policy** promotes innovation in R&D and entrepreneurship by setting up Biomanufacturing hubs, Bio-AI hubs, and Biofoundries to accelerate technology development and commercialisation.
- It focuses on Bio-based chemicals, biopolymers & enzymes, smart proteins & functional foods, precision biotherapeutics, climate resilient agriculture, carbon capture & its utilisation, marine and space research.

References

1. [The Hindu| India's first National Biofoundry Network](#)
2. [PIB| BioE3 Challenge for Youth](#)
3. [PIB| BioE3 Policy](#)

Related News - [India Bio-Economy Report](#)

