GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA

UNSTARRED QUESTION NO. 529 ANSWERED ON 03/12/2025

NATIONAL RESEARCH FOUNDATION (NRF)

529. SHRI BASAVARAJ BOMMAI:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) the progress made so far in setting up of a National Research Foundation (NRF) to increase the expenditure on R&D and to provide increasing role to private sector;
- (b) the details of the steps that are being taken by the Government to increase R&D outlook in the country to create a competitive R&D ecosystem; and
- (c) the other steps taken/being taken by the Government to increase participation of private sector in the research field?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES (DR. JITENDRA SINGH)

(a) ANRF has been established through the Anusandhan National Research Foundation Act, 2023 (25 of 2023). The provisions of the Act came into force on 5th February 2024. It aims to provide high level strategic direction for research, innovation and entrepreneurship in the field of natural sciences including mathematical sciences, engineering and technology, environmental and earth sciences, health and agriculture, and scientific and technological interfaces of humanities and social sciences, to promote, monitor and provide support as required for such research and for matters connected therewith or incidental thereto. The overarching goal of the ANRF will be to seed, grow and promote research and development (R&D) and foster a culture of research and innovation throughout India's universities, colleges, research institutions, and R&D laboratories.

The programmes and initiatives under the ANRF have been formulated to align national research efforts with strategic priorities. These include supporting research across disciplinary and interdisciplinary areas of science and technology through competitive funding; strengthening R&D capabilities in state universities; implementing mission-mode programmes in domains of national importance; encouraging private-sector participation in R&D; and providing limited support through fellowships, seminars, and workshop grants.

A major initiative under ANRF is the Mission for Advancement in High-impact Areas (MAHA), which promotes priority-driven, solution-oriented research

through multi-institutional, multi-disciplinary, and multi-investigator collaborations. Under the MAHA programme, ANRF has so far identified and launched four missions: the Electric Vehicle (EV) Mission, the 2D Innovation Hub, the MedTech Mission, and the AI for Science and Engineering initiative. ANRF's programmes focus on strengthening industry-academia collaboration and promoting translational, mission-driven research with active industry involvement. To ensure effective engagement, the MAHA–EV Mission mandates participation from relevant industries, PSUs, and start-ups, and includes a requirement for industry partners to contribute 10% of the total project cost.

- To strengthen the country's R&D outlook and create a competitive (b) national research ecosystem, the Government is undertaking a series of strategic measures. These include building indigenous capabilities in critical technologies such as semiconductors, Artificial Intelligence, 5G/6G, quantum computing, biotechnology, clean energy, space technologies, and cyberphysical systems; establishing national mission programmes such as the National Quantum Mission, the India Semiconductor Mission, and the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to drive coordinated, mission-mode research. Further steps include operationalising the Anusandhan National Research Foundation (ANRF) to support high-impact and translational research; enhancing industry-academia collaboration; promoting private-sector participation in R&D; and establishing a ₹1 lakh crore RDI Fund to catalyse research and innovation in sunrise and strategic sectors. The Government is also strengthening human capital for R&D through fellowship schemes such as the Prime Minister's Early Career Research Grant and other research support programmes.
- (c) One of the key initiatives to increase participation of private sector is launching of Research, Development, and Innovation (RDI) Scheme. On July 1, 2025 the Union Cabinet approved the RDI Scheme with a total outlay of ₹1 lakh crore over 6 years to incentivize private sector participation in research and development (R&D).

RDI Scheme aims to provide long-term financing at low interest rates to spur private sector investment in RDI. The scheme has been designed to overcome the constraints and challenges in funding of private sector and seeks to provide growth & risk capital to sunrise and strategic sectors to facilitate innovation, promote adoption of technology and enhance competitiveness. The main objectives of the RDI scheme are to 1) encourage the private sector to scale up research, development and innovation (RDI) in sunrise domains and in other sectors relevant for economic security, strategic purpose, and self-reliance, 2) finance transformative projects at higher levels of Technology Readiness Level (TRL) of 4 and above, 3) support acquisition of technologies which are critical or of high strategic importance, and 4) facilitate setting up of Deep-Tech of Funds.
