

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 3989
ANSWERED ON 12/08/2026**

**OPPORTUNITIES FOR RESEARCHERS, INNOVATORS AND TECHNOLOGY
PROFESSIONALS**

3989. THIRU Dr. S JAGATHRATCHAKAN:

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

- (a) whether the Government's assessment of the implications of declining research funding in the United State and the parallel rise of China in science and technology for the country's research, innovation and technological capabilities and if so, the details thereof;**
- (b) whether the initiatives undertaken by the Government to strengthen research and development infrastructure, expand funding support, promote innovation and enhance collaboration among academic, scientific and industrial institutions and if so, the details thereof;**
- (c) the measures taken to prevent outflow of scientific talent, encourage high-quality research and create attractive opportunities for researchers, innovators and technology professionals within the country; and**
- (d) the steps taken by the Government to strengthen capabilities in Artificial Intelligence (AI), quantum technologies, biosciences, advanced materials and other frontier areas of science and technology?**

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

(a) The Government continuously monitors and assesses global developments in science, technology and innovation, including trends in research funding, scientific output, emerging technologies and international collaborations. The Government has taken note of the level of investments by several countries, including United States and China, in science and technology sectors and recognized the emergence of a

strategic opportunity for India to reduce dependence on external research ecosystems with stable and substantially higher research funding. While countries like China creates competitive pressure, India has created opportunities for diversified partnerships, learning and strategic positioning in research and innovation sectors. The multipronged strategies include initiatives of scientific departments and agencies to (i) attract and retain the best global talent, (ii) invest in long-term scientific infrastructure for frontier research, (iii) accelerate strategic and dual-use technologies, and (iv) promote deep-tech innovations to ensure India's sustained position in the global value chain.

(b) The Government has undertaken several initiatives to strengthen research and development (R&D) infrastructure, expand funding support, promote innovation and enhance collaboration among academia, research institutions and industry. Major initiatives include: Sector specific missions like National Green Hydrogen mission, India AI Mission, India Semiconductor Mission, National Quantum Mission; implementation of Vigyan Dhara, an integrated umbrella scheme of the Department of Science and Technology (DST) for science and technology capacity building, research support and innovation promotion; CSIR incubation centres across its labs to comprehensively provide scientific support for R&D, prototyping facilities, use of R&D equipment for analytical measurements, and advisory/ consulting services for navigating challenges; establishing of Indian Science, Technology and Engineering Facilities Map (I-STEM) that maximises utilisation of India's publicly funded research infrastructure by making advanced scientific facilities discoverable and accessible through a unified digital platform; and specialized funding opportunities such as the Research, Development and Innovation (RDI) Fund; Deep Tech Fund of Funds to support private industry and startups in undertaking high-risk, high-impact R&D in sunrise sectors in partnership with public research institutions. There has been a significant increase in the funding for research and development through the Ministry of Science and Technology in recent years, from ₹14,794.03 crore (2021-22) to ₹38,613.32 crore (2025-26), which has significantly contributed to improve India's position in the Global Innovation Index.

(c) The Ministry of Science and Technology has formulated several schemes to retain talent in the country. The extramural funding schemes of DST and Department of Biotechnology (DBT) and Fellowship schemes of DST, DBT, Anusandhan National Research Foundation (ANRF) and

Council of Scientific and Industrial Research (CSIR) have been designed to encourage scientists to do quality research in the country. Several schemes / programmes for building research infrastructure for enhancing research capabilities and several high-stake technology missions have been instituted. Special attention has been given to young scientists for making them independent and motivate them to continue their research in the country. The Government has consistently increased the budget allocation for science and research. Significant opportunities have been created by recent launching of the ₹1.0 lakh crore RDI Fund as well as expansion of S&T led start-ups. Further, the Flexible Complementing Scheme/ Merit based promotion scheme positioned in scientific departments and introduction of Performance Related Incentive Scheme (PRIS) in strategic Departments have also been instrumental in recruiting and retaining the scientists.

(d) Government has taken several significant steps to strengthen capabilities in Artificial Intelligence (AI), quantum technologies, biosciences, advanced materials and other frontier areas of science and technology. Missions such as the IndiaAI Mission, dedicated for building AI computing infrastructure, datasets, skilling, innovation and startup; National Mission on Interdisciplinary Cyber-Physical Systems, with creation of 25 Technology Innovation Hubs (TIHs) including upgrading 4 TIHs to Technology Translation Parks in premier academic institutions; National Quantum Mission, with creation of four thematic hubs in advancing quantum computing, quantum communication, quantum sensing and quantum materials technologies; BIOE3 (Biotechnology for Economy, Environment and Employment) Policy for accelerating high-performance biomanufacturing and biotechnology innovation have created a vibrant S&T ecosystem in the country. Advanced materials research has been supported through national facilities, mission programmes and collaborative research initiatives in areas such as semiconductors, energy materials, functional materials and nanotechnology. These initiatives are aimed at enhancing India's scientific excellence, technological self-reliance, innovation capacity and global competitiveness in emerging and strategic sectors.
