

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:2803
ANSWERED ON:10.12.2014
INNOVATION IN S T
Thakur Shri Anurag Singh

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

- (a) whether lack of practicality at higher level education is one of the major reasons for the comparatively lesser innovation in our country;
- (b) if so, the details thereof and the reasons for lower level of innovation in the country;
- (c) whether the Government has taken any steps to improvise higher level science education into a practical learning course where innovation in the field of science and technology can take place; and
- (d) if so, the details thereof and if not, the reasons therefor?

Answer

MINISTER FOR SCIENCE AND TECHNOLOGY AND MINISTER FOR EARTH SCIENCES (DR. HARSH VARDHAN)

(a) & (b): Innovation is a complex activity and is dependent on various factors of innovation ecosystem such as linkages of higher education institutions with industries, skills and innovation potential of human capital, research infrastructure and capabilities, financing mechanism of innovations, market sophistication and business environment etc. The innovation ecosystem in the country is evolving and the Government along with other stakeholders are working on initiatives to create an enabling innovation ecosystem in the country. There is no evidence or study to corroborate the fact that lack of practicality at higher level education is one of the major reasons for the comparatively lesser innovation in our country.

(c) & (d): The Government has taken up many steps to improve the higher level science education system into a practical learning course for encouraging innovations in science and technology. Ministry of Human Resource Development (MHRD) is setting up 'Research Parks' in few Indian Institute of Technologies (IITs) in order to create knowledge and innovation ecosystem through industry-academia collaboration for developing cutting edge technologies. To encourage innovations in manufacturing through practical material and industry exposure, National Manufacturing Competitiveness Council (NMCC) in collaboration with MHRD's two IITs, an Indian Institute of Management (IIM) and Confederation of Indian Industry (CII) has developed Visionary Leaders for Manufacturing Programme. Department of Biotechnology (DBT) has initiated the 'Star College Scheme' to address several important dimensions of undergraduate science education, which also focuses on interdisciplinary, interdepartmental research projects of day-to-day relevance, and nurture excellence in science education for holistic development of colleges. DBT is also implementing a Biotechnology Industrial Training Programme (BITP) for providing hands-on training to fresh B.E./ B.Tech./ M.Sc./ M. Tech. students to learn skills for innovation to produce products, their validation, formulation and design through industry attachment. The Council of Scientific and Industrial Research (CSIR) has set up Academy of Scientific and Innovative Research to disseminate advanced knowledge in frontline and emerging areas of learning. Department of Science and Technology (DST) is promoting institutional mechanisms i.e. 'Innovation and Entrepreneurship Development Centre' (IEDC) and 'Technology Business Incubator' (TBI) at various technical institutions and universities for fostering innovation, entrepreneurship and nurturing of knowledge based start-ups. DST also supports India Innovation Initiative - i3 jointly with All India Council for Technical Education (AICTE) and CII which aims at capturing the innovative ideas in the age group of 18 years and above. Technology Information, Forecasting and assessment council (TIFAC) of DST has initiated TIFAC-MSME Internship Scheme to encourage and facilitate enhanced and continued involvement of students and faculty of technical institutions with industries.