

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF SCIENCE & TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 921
ANSWERED ON 09/02/2023

SCHEMES FOR DEVELOPMENT OF STARTUPS

921. SHRI S. SELVAGANABATHY:

Will the Minister of Science and Technology be pleased to state:

- (a) whether Government has launched any new schemes to directly increase and aid startups in the Technology sector, if so, the details thereof and if not, the reasons therefor;
- (b) whether Government has recognised any barriers in technology adoption in Government service delivery, promoting industry participation in Research and Development (R&D) activities and supporting States in building human resource capacity around futuristic technologies and if so, the details thereof;
- (c) whether Government has launched any scheme to ease these barriers; and
- (d) if so, the details thereof and if not, the reasons therefor?

ANSWER

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

(a) Yes Sir, Government has launched number of programs to aid Startups in technology sectors. The programmes initiated by Department of Science & Technology aim to nurture innovation and technology led entrepreneurship, which also creates new avenues for wealth creation and job generation. In line with the Hon'ble PM's vision on Innovation and Start-up India, National Initiative for Developing and Harnessing Innovations (NIDHI) programme has been initiated in 2016-17, which aims to convert knowledge-based and technology-driven innovative ideas into successful startups.

NIDHI program has various components like providing fellowships to the students opting for entrepreneurship through Entrepreneurs-In-Residence (EIR) Program, PRAYAS (Promoting and Accelerating Young and Aspiring Innovators and Startups) program by providing financial support for converting ideas into prototypes, availability of early stage Seed support funding to startups, providing mentoring and investment readiness support through Accelerators to startups, and creating state-of-the art infrastructure for incubating startups in technology sectors through Technology Business Incubators (TBIs) and Centres of Excellence (CoE). Department of Science & Technology (DST) has also initiated the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS). As part of the Mission implementation, 25 Technology Innovation Hubs (TIHs) have been established in reputed institutes across the country in advanced technologies. One of the major activities of the Mission is boosting Innovation, Entrepreneurship & Start-Up in emerging areas of technologies such as AI (Artificial Intelligence), ML (Machine Learning), Robotics, IOT (Internet of Things) etc.

The DPIIT Startup India Seed Fund Scheme (SISFS) aims to provide financial assistance to startups for proof of concept, prototype development, product trials, market entry, and commercialization. The scheme enables startups to graduate to a level where they are able to raise investments from angel investors or venture capitalists or seek loans from commercial banks or financial institutions.

Atal Innovation Mission, NITI Aayog has set up Atal Incubation Centres (AIC) to incubate startups in various sectors. It has also launched Atal New India Challenge (ANIC) program to directly aid start-ups with technology-based innovations

that solve sectoral challenges of national importance and societal relevance. Department of Biotechnology, through Biotechnology Industry Research Assistance Council (BIRAC), supports and nurtures startups in the Biotechnology sector. The major schemes are BioNESTscheme (Bio incubators Nurturing Entrepreneurship for Scaling Technologies) and Biotechnology Ignition Grant (BIG) schemes.

The Innovations for Defence Excellence(iDEX) was launched by the Department of Defense Production, Ministry of Defense, with the aim to achieve self-reliance and foster innovation and technology development in Defense and Aerospace by engaging Industries, R&D institutes and academia and provide them grants to carry out R&D. The startups receive upto Rs 1.50 Crore as grant for development of innovative prototypes.

Ministry of Electronics & IT (MeitY) has launched Technology Incubation and Development of Entrepreneurs (TIDE 2.0) Scheme to promote tech entrepreneurship through financial and technical support to incubators engaged in supporting ICT startups using emerging technologies such as IoT, AI, Block-chain etc.

(b), (c) and (d): Yes Sir. Government has recognized technology as the key enabler for efficient delivery of services to its beneficiaries. Different departments of government, periodically evaluate the barriers, challenges and missing links in its technology led service programs and attempt to address identified challenges by evolving new programs.

BIRAC, DBT has identified some barriers in advancement of R&D like Limited common access facilities for Pilot and early stage manufacturing for advanced stage startups, Regulatory compliances awareness and clearance etc. As a solution, BIRAC under DBT has set up Project Development Cell (PDC) for Biotech sector which is positioned to work with Centre and States to create an investment friendly ecosystem, strongly supporting the domestic investor and FDI. It also resolves issues with highest level intervention through the Empowered Group of Secretaries (EGoS). National Investment Clearance Cell (ICC) for Biotech sector facilitates regulatory support through Single Window System and promote Ease of doing business.

With launch of Digital India Programme along with rapid pace of digitization and penetration of mobile phones and access to internet has enabled adoption of technology in service delivery in a more transparent and efficient way. Government initiatives like COWIN app for efficient management of vaccine programme; enabling implementation of GST through IT tools, Direct Benefit Transfer (DBT) are some shining examples of technology adoption and efficient delivery of services.

DST's National Mission on ICPS (National Mission on Interdisciplinary Cyber Physical System) includes Central Ministries, State Governments, Industry and Academia as stakeholders. The mission, apart from major focus on advanced technology development, translation & commercialization, also has major components on Human Resource & Skill Development in advanced and futuristic technologies. The support under DST NM- ICPS and DST- NIDHI programs is provided to not-for-profit entities in form of section 8 companies or societies for providing enhanced autonomy in fast decision making and providing conducive environment for startups to grow.

Government has initiated programmes to promote industry participation in Research and Development activities. DST through Science and Engineering Research Board (SERB), has launched Industry Relevant R & D (IRRD) scheme with objective to utilize the expertise available in academic institutions and national laboratories to solve industry specific problems for the larger benefit of society. The government and industry have jointly developed the Prime Minister's Fellowship Scheme to attract talent for doctoral research, nurture leadership qualities in scholars and encourage industrial research in academic institutions. The scheme has the provision to award up to 100 new scholarships every year, of up to Rs 8.7 lakh per annum per candidate. DST, through its Clean Energy Research Initiative has facilitated industry participation for the development of technologies through collaborative industry R&D. Some of the research domains are: Hydrogen and fuel cell program to boost industry participation, development of photocatalytic membranes for simultaneous water disinfection and filtration, etc.

CSIR has set up 7 Common Research and Technology Development Hubs (CRTDHs) during last five years, for promoting industrial R&D innovation, dedicated for MSMEs, start-ups and individual innovators. CSIR laboratories have been continuously providing training in diverse areas for undergraduates, post graduates and research students. They are also engaged in conducting Industry oriented training/ skilling programmes that have been well accepted by users.
