# Science, Technology and Innovation Policy (STI) 2013

Science, Technology and Innovation Policy (STI) 2013 seeks to send a signal to the Indian scientific community, both in the private and public domain, that *science, technology and innovation should* **focus on faster, sustainable and inclusive development of the people**. The policy seeks to focus on both **STI for people and people for STI**. It aims to bring all the benefits of Science, Technology & Innovation to the national development and sustainable and more inclusive growth. It seeks the right sizing of the gross expenditure on research and development by encouraging and incentivizing **private sector participation in R & D, technology and innovation activities**.

The policy also seeks to trigger an ecosystem for innovative abilities to flourish by leveraging partnerships among diverse stakeholders and by encouraging and facilitating enterprises to invest in innovations. It also seeks to bring in mechanisms for achieving **gender parity in STI activities** and **gaining global competitiveness in select technological areas** through international cooperation and alliances. The policy goal is to accelerate the pace of discovery, diffusion and delivery of science led solutions for serving the aspirational goals of India for faster, sustainable and inclusive growth. A Strong and viable Science, Research and Innovation system for High Technology led path for India (**SRISHTI**) are the goal for the STI policy.

## The Key features of the STI policy 2013

- Promoting the spread of scientific temper amongst all sections of society. Enhancing
- skills for applications of science among the young from all social sectors. Making
- careers in science, research and innovation attractive enough for talented and bright minds.
- Establishing world class infrastructure for R&D for gaining global leadership in some select frontier areas of science.
- Positioning India among the top five global scientific powers by 2020 (by increasing the share of global scientific publications from 3.5% to over 7% and quadrupling the number of papers in top 1% journals from the current levels).
- Linking contributions of Science Research and innovation system with the inclusive economic growth agenda and combining priorities of excellence and relevance.
- Creating an environment for enhanced private sector participation in R &D. Enabling
- conversion of R & D output with societal and commercial applications by replicating hitherto successful models, as well as establishing of new PPP structures. Seeking
- S&T based high risk innovation through new mechanisms.
- Fostering resource optimized cost-effective innovation across size and technology domains.
- Triggering in the mindset & value systems to recognize respect and reward performances which create wealth from S&T derived knowledge.
- Creating a robust national innovation system.

Also read: Investment Models

# Aspirations of the Policy

The main aspirational elements of the STI policy are:

- Raising Gross Expenditure in Research and Development (GERD) to 2% from the present 1% of the GDP in this decade by encouraging enhanced private sector contribution.
- Increasing the number of Full Time Equivalent (FTE) of R&D personnel in India by at least 66% of the present strength in 5 years.
- Increasing accessibility, availability and affordability of innovations, especially for women, differently-abled and disadvantaged sections of society.

## Mechanisms

Wide ranging mechanisms are envisaged to be deployed to realize the policy aspirations, a few of these are:

- Promoting the spread of scientific temper amongst all sections of society.
- Enhancing skill for applications of science among the young from all social strata.
- Making careers in science, research and innovation attractive enough for talented and bright minds.
- Empowering women through appropriate STI inputs and investments.
- Facilitating private sector investment in R&D centres in India and overseas.
- Promoting establishment of large R&D facilities in PPP mode with provisions for benefits sharing.
- Permitting multi stakeholders participation in the Indian R&D system.
- Treating R&D in the private sector at par with public institutions for availing public funds.
- Bench marking of R&D funding mechanisms and patterns globally.
- Aligning Venture Capital and Inclusion Innovation Fund systems.
- Sharing of IPRs between inventors and investors.
- Modifying IPR policy to provide for marching rights for social good when supported by public funds and for co-sharing IPRs generated under PPP.
- Providing incentives for commercialization of innovations with focus on green manufacturing.
- Closing gaps in the translation of new findings at the grassroots and the commercial space.
- Forging strategic partnerships and alliances with other nations through both bilateral and multilateral cooperation in science, technology and innovation.
  Triggering ecosystem changes in attitudes, mindset, values and governance systems of publicly funded institutions engaged in STI activities to recognize, respect and reward performances which create wealth from S&T derived knowledge.

## Policy Implementation

Implementation of the proposals contained in the Policy will necessitate consultations with different government departments/ministries and agencies besides consultations with overarching, science and engineering academies industry and business associations etc. Accordingly DST will establish a Policy Implementation Group to expeditiously operationalise the proposals within the next two years.

## Backdrop

Prime Minister, Shrimati Indira Gandhi had announced the **Technology Policy Statement (TPS)** at the Science Congress in January 1983. It focused on the need to attain technological competence and self-reliance. Several of the statements of TPS were implemented. Subsequently, a **Science and Technology Policy (STP) was announced in 2003**, seeking to bring science and technology (S&T) together. It basically called for integrating programmes of socio-economic sectors with the national R&D system and the creation of a national innovation system. The world has changed vastly since then in all spheres of human activity. New paradigms of innovation have emerged, arising, among others, out of the pervasive intrusion of internet and globalization. Even then systems that foster innovation have become country and context specific. India has declared 2010-20 as the "**Decade of Innovation**." **India's** demographics have changed significantly too. The youthful populations have high expectations and aspirations of the nation.The Science, Technology and Innovation Policy (STI) 2013 approved by the Union Cabinet is in furtherance of this declaration and aims to bring perspectives to bear on Science & Technology led innovations in the changing context.