

Science, Technology, and Innovation Policy 2020

Background Note

As India and the world reorient in the wake of the COVID-19 crisis, a landmark policy initiative, Science, Technology, and Innovation Policy 2020 (STIP 2020) has been initiated at this crucial juncture. It is one of the most significant events amidst many important changes in the past decade that have necessitated formulation of a new outlook and strategy for Science, Technology, and Innovation (STI). Given the recent advancements in the global and national STI landscape, STIP 2020 aims to reorient STI efforts in terms of priorities, sectoral focus, and strategies. It aims to revisit and re-energize the way research is conducted; technologies developed and deployed with the goals of larger socio-economic progress and welfare.

In the last few months, a **preparatory framework** has been developed for the formulation of STIP 2020. This is only the fifth national science, technology, and innovation policy of/for India that follows

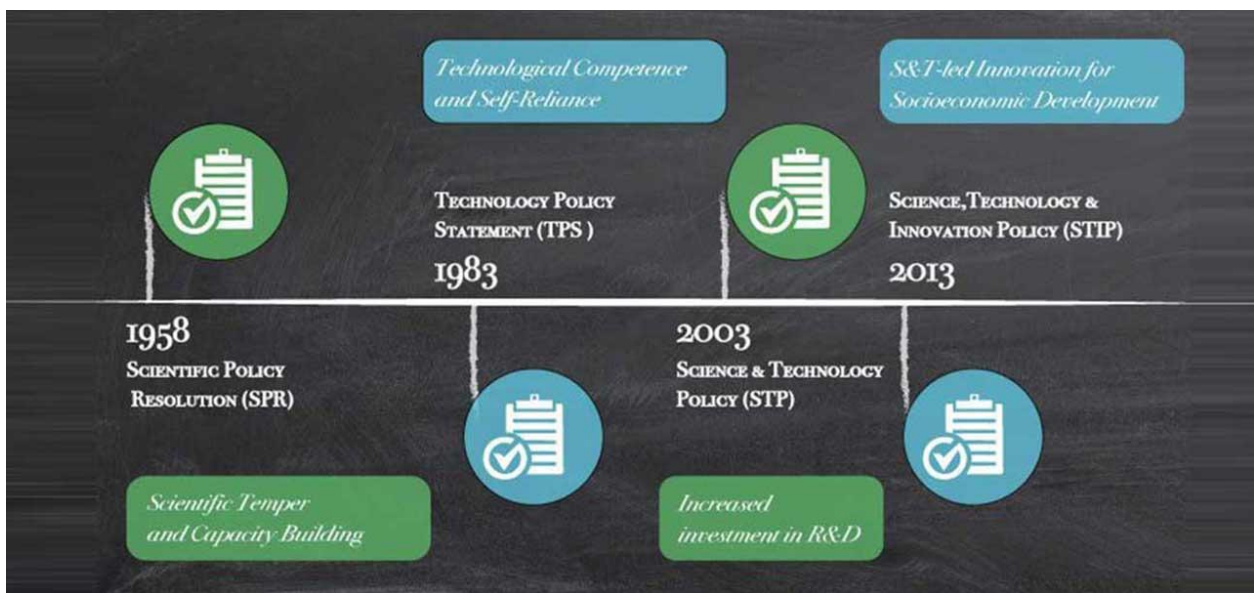


Figure 1: Evolution of Science Technology and Innovation Policies in India so far

1. The **Science Policy Resolution 1958 (SPR 1958)** which aimed to “foster, promote and sustain” the “cultivation of science and scientific research in all its aspects”
2. The **Technology Policy Statement 1983 (TPS 1983)** which emphasized the need to attain technological competence and self-reliance, with the objective to “integrate programmes of socio-economic sectors with the national R&D system and the creation of a national innovation system”

3. The *Science and Technology Policy 2003 (STP 2003)* which brought the benefits of Science and Technology to the forefront and focused on the investment required for research and development along with the national innovation system.
4. The *Science, Technology, and Innovation Policy 2013 (STIP 2013)* which focused on the large demographic dividend and set the paradigm “Science technology and innovation for the people.”

The new policy, *STIP 2020* revolves around the core principles of being decentralized, evidence-informed, bottom-up, experts-driven, and inclusive. Also, it aims to bring in the concept of ‘dynamic policy’ with a robust policy governance mechanism incorporating features such as periodic review, policy evaluation, feedback, and adaptation, most importantly, a timely exit strategy for various policy instruments.

STIP 2020 policy formulation framework involves 4 detailed tracks of activities and a coordination mechanism through a centralized secretariat. The STIP 2020 secretariat is coordinated, supported, and guided by Office of PSA, NITI Aayog and DST. The formulation process, by design, envisioned as a very inclusive and participative model with intense interconnectedness among different tracks of activities. As of today, some background work has been done in all the 4 tracks and an operational ground is prepared to take it further in full swing.

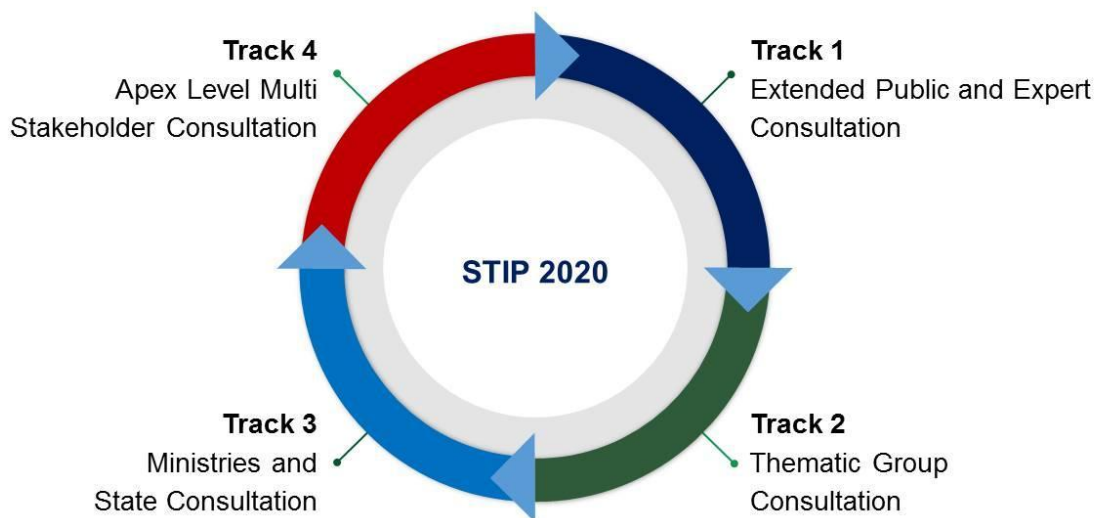


Figure 2: Four Interlinked Tracks of STIP 2020 Formulation Process

Track-I involves extended public and expert consultation with larger public participation. Track-I aims to capture the aspirations of a larger set of stakeholders and create a repository of public voices that will act as a guiding force for the drafting process. There are [six unique activities](#) under this track, designed carefully keeping the limitations (access, reach, digital services, language barriers and last-mile connectivity) of different stakeholder groups in mind.

Track-II involves focused experts-driven thematic group consultations to feed evidence-informed recommendations into the policy drafting process. [Twenty-one \(21\) thematic groups](#) have been constituted for this purpose with 150+ experts drawn from government, academia, industry, civil society organizations and think tanks.

Track-III connects ministries, departments, and states to this policy process through a designated nodal officer. This track involves extensive intra-state and intra-department/ministry consultations. The ‘State/UT Consultations’ focus on strengthening the regional STI ecosystem and creating efficient means of STI Policy Governance at the state level that can lead to the creation of state STI Policies and action plans in tandem with the national STIP 2020. The ministerial consultation process will take key policy recommendations from different ministries and incorporate them into a form that can lead to the creation of a broader STI policy governance and robust STI data architecture.

Track-IV brings institutional coherence by integrating inputs from all the tracks. This track is the binding force that draws upon the apex-level multi-stakeholder engagement at the national as well as global levels. This track is ex-officio in nature, involving institutional representatives from governments, academia, industry, and civil society organizations. The Track-IV apex-level consultations have focused deliberations planned with (i) young scientists and technologists, (ii) civil society organizations with special focus on farmers and traditional businesses, (iii) scientific ministries, departments and agencies, (iv) socio-economic ministries and department, (v) state governments, and (vi) global partners.

Way Forward-

The background preparatory work in all the 4 tracks helps us in capturing the larger stakeholder voices and results in identifying a broader set of priority issues, recommendations, ideas, and suggestions to shape up the STI ecosystem of the country with a futuristic outlook. In addition, the national STI policy can truly reach the masses only when they percolate down to the states. The proactive role of states in aligning their policies towards the larger goal of STIP 2020 will go a long way in building a strong STI ecosystem and promoting innovation and entrepreneurship.

Expectations from the States/ UTs-

Considering the importance of views of states in formulating the STIP 2020, following inputs may be relevant and of great value.

- ❖ Provide a comprehensive list of S&T, Innovation or Industrial based policy initiatives of the State
- ❖ Provide General data concerning the programs and schemes of the State
- ❖ Give suggestions, inputs, and recommendations for STIP 2020
- ❖ Organise Intra-State consultations with institutions and organizations within the State
- ❖ Set up a Science Advice Mechanism in the State for scientifically-informed decision making

An active participation and knowledge dissemination by the states will make this policy truly inclusive and bottom-up.
