



# Scientific Policy Resolution (SPR), 1958

## Background:

- After independence, India recognized the critical role of **science and technology (S&T)** in national development.
- The first **Prime Minister Jawaharlal Nehru** was a strong advocate of scientific temper and institution-building.
- SPR 1958 was the **first official S&T policy** of independent India.

## Objectives:

- To promote scientific research and ensure its application in economic development.
- To build a robust **scientific infrastructure** and manpower.
- To foster a **scientific temper** among citizens.

## Key Features:

1. **Science for Development:** The resolution emphasized that the **cultivation of science** is vital for the nation's development in **agriculture, industry, defense, and overall socio-economic progress**.
2. **Promotion of Research:** Encouraged **basic and applied research**, especially in areas critical to India's needs.
3. **Scientific Temper:** Advocated the development of a **rational, evidence-based mindset** across society.
4. **Institution Building:** Led to the creation of institutions like:
  - CSIR labs
  - Indian Institutes of Technology (IITs)



- Indian Space Research Organization (ISRO)

5. **Government's Role:** Recognized the role of the **State in funding and guiding science** through dedicated ministries and departments.

6. **Human Resource Development:** Emphasis on producing **scientists, engineers, and technicians** to meet national needs.

## Impact:

- Laid the foundation of a **public-sector led science and technology ecosystem**.
- Boosted **industrial research and national laboratories**.
- Encouraged a **scientific culture** in policymaking and governance.

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# Science, Technology and Innovation Policy (STIP), 2013

## Background:

- Emerged in the context of a **globalized, knowledge-driven economy**.
- Built upon earlier policies of 1958, 1983, and 2003.
- Recognized the centrality of **innovation** in addressing national challenges and inclusive growth.

## Objectives:

- To place India among the **top five global scientific powers**.
- To link science, technology, and innovation with **economic and social priorities**.



- To **increase private sector participation** in R&D.

## Salient Features:

### 1. Innovation-driven Growth:

- Emphasized a shift from **science for development** to **science-led innovation for inclusive growth**.
- Focused on creating an **innovation ecosystem** (startups, incubators, tech transfer offices).

### 2. Investment Targets:

- Aimed to raise **Gross Expenditure on R&D (GERD)** to **2% of GDP**, with significant contribution from private sector.

### 3. Inclusive Development:

- Promoted **technology for the masses**, particularly rural and under-served populations.
- Encouraged **grassroots innovation**, traditional knowledge, and gender parity in S&T.

### 4. Public-Private Partnerships (PPP):

- Encouraged **industry-academia collaboration** and **PPP in R&D and technology commercialization**.

### 5. Open Access and Global Cooperation:

- Supported **open access to scientific publications and data**.
- Strengthened international scientific collaborations and global positioning.

### 6. Capacity Building:

- Aimed to **enhance human capital** in science through education, training, and mobility of researchers.

### 7. Technology Business Incubators (TBIs):

- Promoted the creation of **incubation centers and innovation clusters** across



universities and research institutions.

#### 8. **National Innovation System:**

- Called for coordinated action among ministries, institutions, industry, and civil society to promote innovation.

### **Impact and Challenges:**

- Boosted the **startup ecosystem** and brought innovation into the national development agenda.
- However, challenges like **low private R&D investment, brain drain, and bureaucratic hurdles** persisted.
- GERD stagnated below **1% of GDP**, despite policy targets.
- **Implementation gap** remained a key concern.