

CENTRE OF EXCELLENCE FOR STI INDICATORS AND ANALYTICS (COE-STIIA)

India has been witnessing a rapid transformation in the science, technology and innovation ecosystem, driven by increasing R&D investments, an expanding culture of entrepreneurship, progressively intensified collaborative efforts and a strong policy push towards self-reliance and global leadership. As the nation progresses towards a developed, knowledge-driven economy, the need for reliable, timely and fine-granular indicators of Science, Technology and Innovation (STI), and their contextual analysis becomes crucial for policy formulation, strategic planning and effective governance across multiple levels and sectors. Further, there is a critical need for a dynamic system to align and engage with the rapidly evolving global STI frameworks. Despite various efforts over the years, significant challenges remain in building a robust STI data and indicator system.

In this context, ANRF plans to establish a Centre of Excellence for Science, Technology and Innovation Indicators and Analytics (COE-STIIA) with the aim to strengthen the institutional mechanism for STI indicators with an end-to-end system. The key objective is to enhance the quality, contextual relevance and applicability of India's STI indicators, their analysis, interpretations and dissemination of information and insights at various levels of policy and program planning, as well as foster alignment with the global indicator frameworks to position India effectively in international indices.

The CoE is expected to integrate the STI indicator data with the Anusandhan Master Platform for Research and Innovation (ANUMAPI), a unified National Dashboard being developed to disseminate data/information related to research funding, projects, institutions, and outcomes across the country.

The CoE is envisioned to:

- Serve as an institutional arm of ANRF to fulfil the mandate of conducting the annual survey of research performance of the country, creating a central repository for aggregation, interpretation and analysis of information and data surrounding such research, development, and innovation.

- Design, generation and analysis of STI indicators for the country while maintaining global relevance.
- Produce periodic data products, policy briefs and analytical insights for the national dashboard on R&D, evidence-based policy making, planning and governance.
- Build national capacity in STI data, analysis and policy interpretation.

Scope of Work

- Develop a comprehensive and evolving framework for STI indicators, including input, activities, output and impact, aligned with national priorities and global standards.
- Undertake comprehensive mapping of data sources, identification of critical gaps for each indicator and developing institutional strategies to address them.
- Establish active engagement channels with primary data sources across ministries, departments and research agencies for periodic, high-quality data collection and establish a structured data flow mechanism into the National Dashboard ANUMAPI.
- Develop standardized protocols for data validation, cleaning and reconciliation to ensure accuracy and reliability of inputs for the national dashboard.
- Develop derived indicators and composite indices for a holistic understanding of performance and dynamics of India's STI ecosystem.
- Undertake advanced analysis on STI performance trends, sectoral patterns, emerging technology domains, etc., to support policy planning.
- Conduct interdisciplinary research on STI metrics and analytics, combining expertise from scientometrics, economics, data science, science policy, etc.
- Collaborate with international agencies to gain insights and best practices in data standards, enhance the quality and comparability of the country's STI indicators to facilitate integration with global STI databases and strengthen the data visibility of the country.
- Develop national capacity for generating, interpreting and applying STI indicators to address evolving policy needs.

Key Guidelines

- The CoE is expected to ensure that STI data is collected as frequently as the available technology allows across participating organizations, moving toward real-time or near-real-time collection where feasible. The CoE should provide simplified, standardised input interfaces and guide data-contributing entities toward adopting modern data collection methods.
- The CoE is expected to adopt flexible, AI-driven “insight integration” approaches using a central data lake rather than rigid data merging. It should ensure that all source data—regardless of origin or format—is well described or mapped to reference templates to enable effective AI-based integration, while maintaining high data quality standards.
- The CoE will operate as an independent entity while working in close coordination with ANRF. They are expected to establish their own infrastructure, including cloud services, hosting, and data collection mechanisms, etc.
- The CoE is expected to leverage AI and BI tools to define and generate new STI indicators from the data lake.
- All data should be hosted on a compliant cloud infrastructure that adheres to DPDP Act data residency requirements, using government-empanelled cloud providers based in India.

Nature and Duration of Support

CoE will be supported with a funding of upto ₹25 crore for five years. Funding will cover human resources, essential equipment, data acquisition, software licences, analytical tools, capacity building activities, consumables, travel, contingency, and overheads.

Eligibility Conditions

1. A team, consisting of a Principal Investigator (PI) and more than three Co-Principal Investigators (Co-PIs), can submit a proposal for CoE-STIIA. It can be a single institution or a multi-institution proposal. The CoE will be established in the PI institution (host institution). Atleast one Co-PI from the host institution is mandatory.

2. The Principal Investigator (PI) must have proven expertise in STI policy research, scientometrics, data analytics or any other related field.
3. PI and Co-PIs must hold regular academic or research positions in a recognized academic institution, national laboratories or any other recognized institution.
4. The applicant should be an Indian citizen. PIO/OCI working as regular employees in any of the public-funded and recognized R&D laboratories/institutions in India are eligible to apply as PI in collaboration with an Indian Co-PI, provided they fulfil the eligibility criteria notified by ANRF (ANRF Funding Guidelines for PIO/OCI). The applicant should hold a PhD degree in Science, Engineering or Social Sciences.
5. The PI should have at least 6 years of service remaining before superannuation at the time of submission of the application.

Mode of Application and Selection

The Principal Investigator is eligible to apply only one proposal during a call.

The call for applications will be notified on the ANRF website www.anrf.gov.in and online portal "www.anrfonline.in". The selection will be based on the recommendation of the committee constituted by ANRF for this program. If required, the PI and Co-PI(s) may be called for discussion/presentation.

Mode of Proposal Submission

For successful online submission of the application, the following points to be noted:

- PI and Co-PI(s) should first register in the ANRF online portal, www.anrfonline.in [Click](#) here to register
- After log-in the applicants are required to fill in all the mandatory fields as specified in that section.
- The key details such as Title, Vision, Objectives, Keywords, Team and their expertise, Deliverables, Expected outcome, Collaborations (National and International) and Budget (Equipment, Research personnel, Consumables, Travel, Contingency, Other cost (if any) and Overheads) have to be entered within the specified character limit at the time of proposal submission.
- The detailed technical document should be uploaded as a single PDF file, not more than 10MB as a Other Technical Document (OTD). [Download Template](#)

Mode of Funding

- The funds will be provided directly to the Lead institution where the Principal Investigator and Co-Principal Investigator(s) (co-PI(s)) are affiliated.
- If the application involves multiple institutes, the funds will be provided to the lead institution where the Principal investigator is affiliated, who will then disburse funds to other partnering institutions associated with the project.
- The exact amount of funding to be given to each institution will be decided by the ANRF.

Documents Required

- Other Technical Details. [Download Template](#)
- Biodata (under user profile section). [Download Template](#)
- Endorsement letter from the Head of the Institution(s). [Download Template](#)
- Certificate from the investigator(s). [Download Template](#)
- Plagiarism Undertaking [Download Template](#)

Frequently Asked Questions (FAQs)

Q1. Who can apply for COE-STIIA?

A1: Principal Investigators with proven expertise in STI policy research, scientometrics, or data analytics holding regular academic or research positions in a recognized academic institution, national laboratories or any other recognized institution fulfilling the eligibility criteria specified in the program details, along with other co-investigators, can submit a proposal for COE-STIIA.

Q2. What is the expected duration of the CoE support?

A2: The initial duration of support will be five years, subject to periodic performance review and renewal based on satisfactory progress and outcome.

Q3: What are the expected outputs and deliverables from the CoE?

A3: Some of the key expected outputs include (i) National framework for STI indicators, (ii) Validated datasets and annual STI indicator reports, (iii) Derived and composite indices for innovation and research performance, (iv) Policy briefs and

analytical reports, (v) Capacity-building programs for STI data management and analytics, etc.

Q4: Can a single PI apply for COE-STIIA?

A4: No. It is expected that multiple investigators with complementary expertise in data science, policy, and domain-specific experience join together and frame the proposal. The Principal Investigator will take the lead in submitting the proposal, executing the project once awarded and also assume administrative and financial responsibility for the conduct of the project.

Q5: Should the PI and Co-PIs belong to the same institution?

A5: No. The PI and Co-PIs can belong to the same or different institutions, but the CoE-STIIA will be located in the PI institution.

Q6: What level of collaboration with government agencies is expected?

A6: The CoE-STIIA is expected to work in close coordination with relevant departments, ministries and other government data and analytics initiatives, which will be facilitated by ANRF, to ensure complementarity, alignment, and interoperability across national STI data systems.

Proposal Format

1. Title: CoE STIIA
2. Vision
3. Objectives
4. Keywords
5. Team and their expertise
6. Deliverables
7. Expected Outcome
8. Collaborations (National and International)
9. Budget