



EMERGING TECHNOLOGIES INITIATIVE

Accelerating India's Technology Intensity



For more information visit
www.thesciencepolicyforum.org/initiatives/eti/

Emerging Technologies Initiative

The vision of Emerging Technologies Initiative (ETI) is to understand, analyze and anticipate the impact of emerging, futuristic, strategic, critical and disruptive technologies that underpin economies, employment, security, social equity and international relations and thereby identify forward looking collaborative opportunities.

Indicative List of Technologies*

Quantum Technology <ul style="list-style-type: none">• Quantum Radar• Quantum Computing• Quantum Biology• Quantum Cryptography• Quantum Devices & Networks	AI-enabled Technologies <ul style="list-style-type: none">• Consumer/ Social Robots• Augmented / Virtual Reality• AI Applications for Society / Economy• Autonomous Vehicles• Intelligent Transportation Systems	Bio-engineering Technologies <ul style="list-style-type: none">• Neural engineering• Tissue engineering• Bioinformatics• Genetic engineering• Clinical engineering
Sustainable Technologies <ul style="list-style-type: none">• Vertical Farming• Precision Agriculture Technologies• Synthetic Meat• Hydroponics• Electric Vehicles• Battery Technologies• Net- Zero-Energy Buildings	Semiconductor Technologies <ul style="list-style-type: none">• Integrated Circuits (2D, 3D Chips)• Flexible Electronics• Display Technologies• E-textiles• Spintronics	Industrial Technologies <ul style="list-style-type: none">• Smart and Digital Manufacturing• Advanced Industrial Robotics• Industrial Internet of Things (IIoT)• 3D Printing• Distributed Manufacturing Technologies
High Performance Computing <ul style="list-style-type: none">• Big Data Computing• Edge Computing• Containerization• Intelligent Computing Systems• Cyber Security	Blockchain <ul style="list-style-type: none">• Enterprise solutions• Intelligent Supply Chain Systems• Cryptocurrencies• Smart business applications- FinTech, EduTech etc.	Data & Communications Network <ul style="list-style-type: none">• 5G, 6G and beyond• Advanced wireless networks• Communication Hardwares

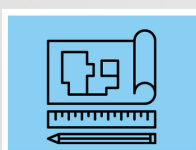
* The table illustrates an indicative list of technologies for reference (It is not an exhaustive list)

Expected Output

The selected teams will produce a strategy report on a specific emerging technology that recommends appropriate policy choices and lays out an indigenization roadmap.



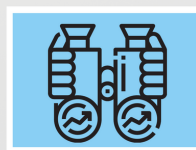
Technology
Scouting



Technology
Landscaping



Technology
Assessment



Technology
Forecasting



Technology
Indigenization

Participation Criteria

Participation is open to Indian citizens, Non Resident Indian /Persons of Indian Origin

Participation in ETI is team-based (Maximum of 10 members per team)

Multi-disciplinary, multi-institution teams would be encouraged (Technology, Business, Government, International Collaboration, Public Policy, Design, Law and Social Sciences)

Preference will be given to teams that include members from Indian startups/ Industry, and Diaspora



Call for Expression of Interest (Eol)

Submission of Eol Deadline:

16 October, 2020

Eol Requirement:

- (a) Identified technology
- (b) Brief Synopsis (maximum 500 words)
- (c) Team Composition

Submit at:

partnership@thesciencepolicyforum.org

Why Participate?

Technology strategy reports produced by this initiative will contribute towards building AtmaNirbhar Bharat

Relevant stakeholders from Ministries, Trade bodies, Accelerators and relevant Government programmes will be brought onboard for interaction with the chosen teams to facilitate operationalization of roadmaps

Selected teams will be invited to participate in the phase 2 of ETI



Partners



Office of Principal Scientific Adviser to the Government of India

Office of PSA is set-up by the Cabinet Secretariat, primarily, to evolve policies, strategies and missions for science, technology, and innovation (STI) in the country. The Office of PSA functions as the Secretariat to some of the apex advisory bodies, including Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC) and Empowered Technology Group (ETC); also involved in implementation of S&T related-synergy projects in critical infrastructure, economic and social sectors in partnership with Government departments, academic and research institutions, and industry.



New Emerging & Strategic Technologies Ministry of External Affairs Government of India

NEST, MEA is a new Division under creation to function as the synopsis bringing together policy and operational interfaces with key partner countries and international organisations; foster a well coordinated position on the technology governance rules, standards and architecture which has begun to evolve; identify new emerging technologies with strategic import for India; assess demand driven requirements on NEST in India at Central and State levels; and assess foreign policy implications of NEST and technology-related resources.



SPF is a collaborative platform that aims to facilitate stakeholder engagement in science, technology and innovation policy (STIP), strengthen science policy linkages and act as a channel for dialogue, outreach and capacity development. SPF brings together a community of policy makers, practitioners, experts, young scholars and enthusiasts across disciplines and generates engaging content for the STI discourse.

