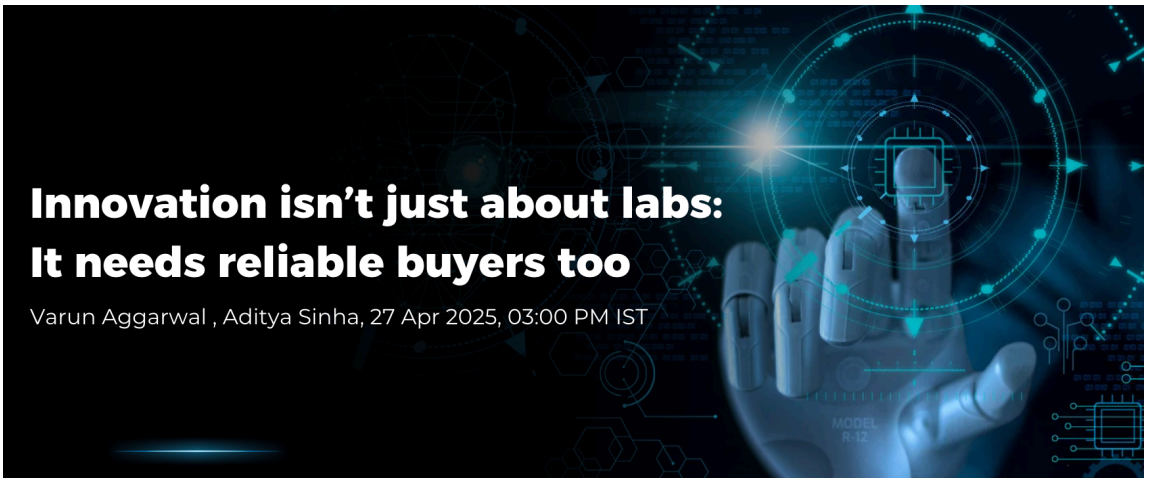
Opinion



Innovation thrives not just in labs but in markets where there's reliable demand, and that's where the government must step in. Given the high risks, long timelines, and spillover effects of R&D, private investment alone often falls short. Strategic public procurement, where the government acts as both funder and buyer, can de-risk innovation, validate emerging technologies, and encourage private investment, especially for startups and MSMEs. Global models like the U.S. DARPA and India's iDEX show how mission-driven procurement can unlock transformative breakthroughs.

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With the pvt sector indifferent to R&D, India risks missing the deep-tech bus, or getting locked out

Aditya Sinha, Associate Director, FAST-India

India risks falling behind in the global deep-tech race due to the private sector's limited investment in research and development (R&D). Despite strong government initiatives like the 1 lakh crore R&D fund and the Anusandhan National Research Foundation, private enterprises contribute only about one-third of India's total R&D spend, far below global benchmarks. A recent study shows Indian firms lag in innovation, patent output, and employment of highly skilled researchers. Without stronger private sector engagement, India could miss critical opportunities in AI, semiconductors, and green tech.

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From Our Video Library

Now Live: Felicitation Ceremony of Shri Baba Kalyani - Industry Science Leader Award 2025

Foundation for Advancing Science and Technology – India is proud to share the official video of Shri Baba Kalyani, Chairman and MD of Bharat Forge Ltd., being conferred with the Industry Science Leader Award 2025 at the India Science Festival. Presented by Prof. K. VijayRaghavan, former Principal Scientific Advisor to the Government of India and a member of FAST India's Board of Advisors, this award recognises Shri Kalyani's outstanding contributions to India's industrial innovation, sustainability, and scientific progress.

The ceremony also features messages from national leaders in science and industry, including Dr. Ajay Sood, Shri Ajai Chowdhry, and Shri Jayant Patil, who highlighted Shri Kalyani's transformative leadership. We invite you to watch and celebrate this moment of recognition for a true champion of India's science and technology ecosystem.

Watch the Facilitation here:

National Survey on Scientific Awareness and Engagement by FAST India

FAST India has unveiled the National Survey on Scientific Awareness and Engagement, conducted between October and December 2024. The online survey assessed STEM students' awareness, interest, and engagement with science and technology across four key Science Literacy. The findings provide valuable insights into how India's future scientists and engineers understand

and interact with science, aiming to inform and strengthen science communication and education efforts nationwide.

Watch the Executive Summary by Avinash Koli

Video Release: How to Prevent Plastic Pollution: The Importance of Upstream Solutions by Dr. Sedat Gundogdu (University of Cukurova)

We're excited to share our newly released video, "How to Prevent Plastic Pollution: The Importance of Upstream Solutions", featuring Dr. Sedat Gundogdu from the University of Çukurova. With over 9,200 million tons of plastic accumulated globally in just 70 years, Dr. Gundogdu makes a compelling case for upstream interventions—focusing on prevention rather than cleanup. He outlines three critical strategies: cutting plastic production (especially single-use packaging) by at least 40%, transitioning to sustainable materials and practices, and enforcing strong policy frameworks. Watch the video to understand why addressing the root causes is essential for a truly sustainable future.

Watch here:

Video Release: From Lab to Market: An Entrepreneurial Story by Dr. David-Cohen Tanug (MIT)

At the India Science Festival 2025, Dr. David Cohen-Tanug from MIT shared a powerful story of how cutting-edge scientific research can evolve into real-world impact. In this inspiring session, he walked us through his entrepreneurial journey—transforming breakthrough innovations from the lab into a successful startup. His experience offers valuable insights into bridging science and entrepreneurship, and the role of innovation in solving global challenges. Don't miss this compelling talk on the path from research to market success.

Watch here:

Research and Innovation Highlights in India:

IIT Delhi Advances in Green Mobility and Clean Energy
(Source: The Times of India)

IIT Delhi launched three pioneering research projects focusing on green mobility, smart materials, and clean energy. These include a low-cost electric vehicle motor reducing rare-earth element usage, 3D-printed smart fabrics responsive to environmental conditions, and a hydrogen production device using intermediate-temperature electrolysis. These initiatives are supported through a collaboration with Horiba Group's subsidiary.

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New solar cell tech by IIT Bombay to sharply cut costs, enhance efficiency
(Source: Indian Express)

New solar cell tech by IIT Bombay to sharply cut costs, enhance efficiency
A team at IIT Bombay's NCPRE has developed India's first 4-terminal silicon-

perovskite tandem solar cell, achieving over 26% efficiency—one of the highest recorded. This innovative design combines a semi-transparent perovskite solar cell with a silicon cell to boost efficiency and stability, while lowering overall costs. The tandem setup allows easy replacement of the perovskite layer, enhancing device lifespan. This breakthrough advances affordable, high-performance solar energy solutions and supports global renewable energy goals.

Read more

Skyroot Aerospace Achieves Major Milestone with Vikram-1 Rocket Stage Separation Test
(Source: The Times of India)

Hyderabad-based space tech startup Skyroot Aerospace has successfully tested the stage separation system of its Vikram-1 rocket, India's first privately developed orbital launch vehicle. The test demonstrated a clean and shock-free separation of rocket stages, a critical step toward ensuring the rocket's reliable performance in future space missions. This achievement marks a significant milestone for India's private space sector and reinforces Skyroot's position as a key player in the country's expanding space ecosystem.

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VAIshwik BHArtiya Vaigyanik (VAIBHAV) Fellowship
(Source: MyScheme)

The Department of Science & Technology (DST), Government of India, has launched the VAIBHAV Fellowship to foster collaboration between the Indian scientific diaspora (NRIs, PIOs, and OCIs) and Indian academic and research institutions. Aimed at enhancing India's research ecosystem, the fellowship invites top global talent in fields like AI, quantum tech, biotech, and clean energy to work with Indian institutions for up to 2 months per year over a 3-year period. Selected fellows receive a monthly stipend of INR 4 lakhs, international airfare, accommodation allowance, and research grants. Applications for the 2025 cohort are open until May 30 on the DST e-PMS portal.

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Did you know?

Budget 2025-26 allocates Rs. 20,000 crore for Research, Development, and Innovation
(Source: Press Information Bureau)

The Union Budget 2025-26 allocated Rs. 20,000 crore for Research, Development, and Innovation (RDI) to boost research and innovation in the Indian private sector. The key objective of the RDI Fund is to strengthen India's innovation ecosystem and encourage private sector investments in critical sunrise domains like semiconductor manufacturing, artificial intelligence, 5G, and quantum computing. To deliberate on the fund's strategic framework and key design aspects, the Department of Science and Technology hosted an Expert Roundtable session during the Post-Budget Webinar held on March 5, 2025. The Expert Roundtable was moderated by Sh Senapthy Kris Gopalakrishnan, Trustee, Pratiksha Trust, Co-Founder, Infosys, and Chairman, Axilor Ventures, and comprised presentations on different facets of the Fund by experts from industry, startups, academia, and venture capital.

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QpiAI launches QpiAI-Indus - India's 1st full-stack quantum super computing system
(Source: Press Information Bureau)

QpiAI-Indus, a quantum supercomputer was launched by QpiAI, one among the 8 startups selected under the Department of Science and Technology's - National Quantum Mission. The supercomputer, launched on the occasion of World Quantum Day, is one of India's most powerful quantum computers, featuring 25 superconducting qubits. It combines advanced quantum hardware, scalable control, and optimized software for transformative hybrid computing. It integrates advanced quantum processors, next-generation quantum-HPC software platforms, and AI-enhanced quantum solutions for a hybrid quantum-classical stack.

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ANRF selects seven High-Impact Projects (e-Nodes) under its MAHA-EV mission
(Source: Press Information Bureau)

Under its Mission for Advancement in High-impact Areas: Electric Vehicles (MAHA-EV), the Anusandhan National Research Foundation (ANRF) has selected seven e-Nodes, of which two will focus on tropical EV batteries and cell technologies, three on power electronics machines and drives, and the remaining two on charging infrastructure - ANRF's strategically defined technology verticals.
The selected e-Nodes are IIT Bombay, IIT Kanpur, IIT-BHU, IIT Kharagpur, NIT Surathkal, International Advanced Research Centre for Powder Metallurgy and New Materials Hyderabad, and CSIR- Central Electronics Engineering Research Institute, Pilani. Each selected e-Node will execute the project in consortia

mode involving academic institutions/R&D laboratories with mandatory industry participation, to contribute and establish R&D in India's EV sector.
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MeitY launches multiple initiatives, including AIKosha, iGOT-AI Mission Karmayogi, IndiaAI FutureSkills, among others, on IndiaAI Mission anniversary
(Source: Press Information Bureau)

MeitY launched: AIKosha - a secured platform that provides a repository of datasets, models, and use cases to enable AI innovation; AI Compute Portal- to provide access to 10,000 GPUs initially, with 8,693 more to be added, offering AI compute services at a highly subsidised rate to support startups, researchers, and enterprises.
Additionally, to support AI startups with mentorship, networking, and global market access in Europe, IndiaAI Startups Global Acceleration Program with Station F and HEC Paris will be launched as a four-month immersive program. IndiaAI FutureSkills Fellowship and IndiaAI Innovation Challenge are other key initiatives launched to promote the development, scaling, and adoption of impactful AI solutions. Further, to ensure informed AI policy-making and implementation, an AI Competency Framework for Public Sector Officials, and iGOT-AI - an AI-powered personalised learning content recommendation system for government officials were also launched.

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