



SustaInovate 2025

(An Ecopreneurship Contest)

By

**CSIR-National Environmental
Engineering Research Institute
(CSIR-NEERI)**

Supported by:



Indian Association for
Environmental Management



AAN-NEERI

Alumni Association of NEERI

Contents

1. Introduction.....	3
2. Objectives of the Contest.....	4
3. Launch of SustaInovate 2025	4
4. Response & Participation.....	7
5. Evaluation Process.....	10
5.1 Screening Stage	10
5.2 Online Presentation Round	11
6. Jury Deliberations & Selection	12
7. Recognition at CSIR Foundation Day.....	12
8. Recognized Innovations.....	15
9. Outcomes & Impact.....	17
9.1 Institutional and National Impact	17
9.2 Capacity Building and Mentorship	17
9.3 Inspiration and Cultural Impact.....	18
9.4 Media and Public Engagement	18
9.5 Key Achievements at a Glance	21
11. Way Forward.....	21
12. Disclaimer	22
13. CSIR-NEERI SustaInovate Team	22

1. Introduction

In the era of accelerating climate change, resource scarcity, and environmental degradation, fostering a culture of innovation rooted in sustainability has become imperative. Recognizing this, the CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) launched SustaInnovate 2025-Ecopreneurship Contest, a flagship national initiative aimed at catalyzing eco-entrepreneurship and science-led solutions for sustainable development.

Conceived as a platform that bridges the gap between scientific innovation, entrepreneurship, and societal transformation, SustaInnovate 2025 sought to identify, nurture, and recognize ideas with the potential to address India's most pressing environmental challenges — from waste management and water conservation to climate resilience, circular economy, and carbon neutrality. The initiative reflects CSIR-NEERI's commitment to advancing the national sustainability agenda and empowering the next generation of eco-innovators and green entrepreneurs.

The contest was designed to serve multiple purposes: to channel scientific knowledge into practical solutions, to create an enabling environment for sustainable startups, and to support innovators in translating laboratory concepts into market-ready, impactful technologies. By aligning with Mission LiFE (Lifestyle for Environment), India's Net Zero commitments, and the United Nations Sustainable Development Goals (SDGs), SustaInnovate 2025 underscored the institute's leadership in driving the transition toward a low-carbon, resource-efficient, and inclusive future.

SustaInnovate 2025 represented not only a competition but also a movement for sustainable innovation, promoting the convergence of science, technology, and entrepreneurship. It encouraged participation from diverse sectors -students, researchers, startups, NGOs, and early-stage entrepreneurs -thereby democratizing access to scientific problem-solving and inspiring a broader cultural shift toward sustainability-driven innovation.

Through this initiative, CSIR-NEERI reaffirmed its role as a catalyst of eco-innovation, facilitating knowledge exchange, mentorship, and industry collaboration, while nurturing India's growing ecosystem of environmental entrepreneurs. The overwhelming response from across the country demonstrated the growing momentum of green innovation and reaffirmed the need for sustained institutional support in turning ideas into scalable, real-world solutions.

2. Objectives of the Contest

- Identify high-impact, novel, and translational ideas in environmental sustainability.
- Support innovators in developing scalable and viable solutions.
- Provide mentorship, technical guidance, and industry connect.
- Foster eco-entrepreneurship culture among students, startups, NGOs, and innovators across India.

3. Launch of SustaInovate 2025

The SustaInovate 2025 – Ecopreneurship Contest was officially launched in May 2025 as part of CSIR-NEERI's broader mission to translate environmental research into sustainable entrepreneurial ventures. The launch marked a significant milestone in NEERI's continuing efforts to empower innovators and catalyze green transformation through science-based, solution-oriented initiatives.

The Ecopreneurship Contest initiative was inaugurated by the Hon'ble Minister for Science and Technology, Dr. Jitendra Singh, during the CSIR Start-up Conclave Mumbai 2025 in Mumbai, highlighting that it is an open innovation challenge that invites innovators to propose science-based, scalable solutions to pressing environmental challenges. The initiative aims to empower transformative ideas that advance sustainability through peer review, expert mentorship, and industry linkages.



Figure 1: Launch of Sustainovate 2025 by the Hon'ble Minister for Science and Technology, Dr. Jitendra Singh, during the CSIR Start-up Conclave Mumbai in May 2025

The announcement was made through a comprehensive national outreach campaign, which included dissemination via the CSIR-NEERI website, social media platforms, academic networks, innovation incubators, and industry associations. Flyers, posters, and digital communication materials were strategically circulated across universities, engineering and science institutes, startup ecosystems, and non-governmental organizations to ensure extensive visibility and participation. The call for proposals invited a wide and inclusive range of participants, students (UG/PG/PhD), early-stage entrepreneurs, startups, NGOs, SMEs, and individual innovators to foster an interdisciplinary approach to sustainable innovation. The contest framework was carefully designed to attract ideas that could bridge the gap between scientific research and societal application. It provided a platform where creativity, technical knowledge, and entrepreneurial thinking converged to address real-world environmental problems. To ensure clarity and thematic alignment, ten focus areas were defined, representing both national priorities and emerging global sustainability frontiers:

- Smart solutions for water and waste management
- Climate resilience and adaptation strategies
- Circular economy and resource efficiency models
- Carbon neutrality and decarbonization pathways
- Nature-based solutions for ecosystem restoration
- AI and digital technologies for environmental applications
- Sustainable mobility and energy solutions
- Clean air and pollution control innovations
- Eco-friendly materials and green manufacturing
- Sustainable agriculture and bio-based solutions

These themes reflected a holistic view of sustainability encompassing technology, policy, ecology, and behavior change and encouraged innovators to think beyond incremental improvements toward transformative, scalable solutions.

The launch phase also emphasized capacity-building and mentorship, with a vision to create a nurturing ecosystem rather than a one-time competition. Communication from CSIR-NEERI highlighted that the initiative would not only recognize innovative ideas but also help participants gain visibility, access expert feedback, and explore pathways for prototype development and technology validation.

Furthermore, the announcement was met with strong support from industry partners and knowledge collaborators, signaling growing private-sector interest in sustainable innovation. This collaboration-oriented approach set SustaiNovate 2025 apart from conventional contests by establishing it as a convergence platform linking science, startups, and sustainability under one umbrella.

The launch of SustaiNovate 2025 thus represented more than the beginning of a contest; it marked the inauguration of a national movement aimed at nurturing eco-preneurial spirit, translating research into practice, and building a community of innovators committed to India's green transition.



ECOPRENEURSHIP CONTEST

CSIR-NEERI SUSTAINOVATE 2025
Catalysing Eco-Innovation for a Sustainable Future

CSIR – National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur

SustaInnovate 2025 is an open innovation challenge inviting innovators to propose science-based, scalable solutions to pressing environmental challenges. Organized by CSIR-NEERI, the initiative aims to empower transformative ideas that advance sustainability through meticulous peer review, expert mentorship/support, and strategic industry linkages.

OBJECTIVES

- Identify high-impact, novel and translational ideas in environmental sustainability.
- Support innovators in developing scalable and viable solutions.
- Handholding through expert mentorship, technical resources, and industry networks.

INNOVATION THEMES

- Smart Solutions for Water, Waste and Sanitation
- Climate Resilience & Ecosystem Conservation
- Eco-Innovation for Rural Challenges
- Circular Economy Strategies
- Green Infrastructure and Sustainability-Driven Technologies
- Carbon Neutral and Net-Zero Strategies
- Traditional Knowledge for Environmental Challenges
- Nature based environmental solutions
- Smart and Sustainable Cities
- AI & Data-Driven Environmental Applications

WHO CAN PARTICIPATE?

- UG/PG/PhD students (via faculty mentors)
- Startups, SMEs, and early-stage entrepreneurs
- NGOs/CSOs in relevant sectors

HONOURS & FACILITATION

- Certificate of Excellence (Top 3)
- Mentorship by CSIR-NEERI Scientists
- Investor & Industry Connect

APPLY THROUGH QR

➤ Call Opens	20 May 2025	➤ Prototype Demos	4 th week of Aug 2025
➤ Call Ends	30 Jun 2025	➤ Winners Announcement	26 Sept 2025
➤ Screening Results	30 Jul 2025	➤ Mentorship Phase	Oct 2025 – Mar 2026
➤ Online Presentations	1 st week of Aug 2025		

Platform to showcase developed & Scalable Solutions.

Figure 2: Flyer of SustaInnovate 2025

4. Response & Participation

The response to SustaInnovate 2025 far exceeded expectations, reflecting the growing enthusiasm for sustainability-led innovation across India. Within weeks of its announcement, the initiative began attracting attention from students, researchers, start-ups, and innovators who were eager to contribute to environmental problem-solving through creative, science-based ideas.

In total, over 110 proposals were received from across the country, representing a wide geographic and institutional diversity — including submissions from metropolitan innovation hubs such as Delhi, Mumbai, Bengaluru, Hyderabad, and Pune, as well as strong representation from tier-II and tier-III cities and semi-rural regions. This broad reach demonstrated that awareness and commitment to sustainability are now deeply embedded not only in premier institutes and urban centers but also among regional academic institutions, local entrepreneurs, and community-driven organizations.

Participants represented a rich cross-section of sectors and disciplines, bringing together diverse perspectives on sustainability. Approximately 45% of submissions came from students and academic researchers (UG/PG/PhD level), highlighting a strong academic interest in applied environmental innovation. Around 30% of the proposals originated from start-ups and early-stage entrepreneurs, many of whom were working on technology-enabled solutions for waste recycling, water treatment, and clean energy. A notable 15% came from NGOs and social enterprises, reflecting community-oriented approaches to sustainability, while the remaining entries were from individual innovators and professionals working independently on low-cost, high-impact ideas.

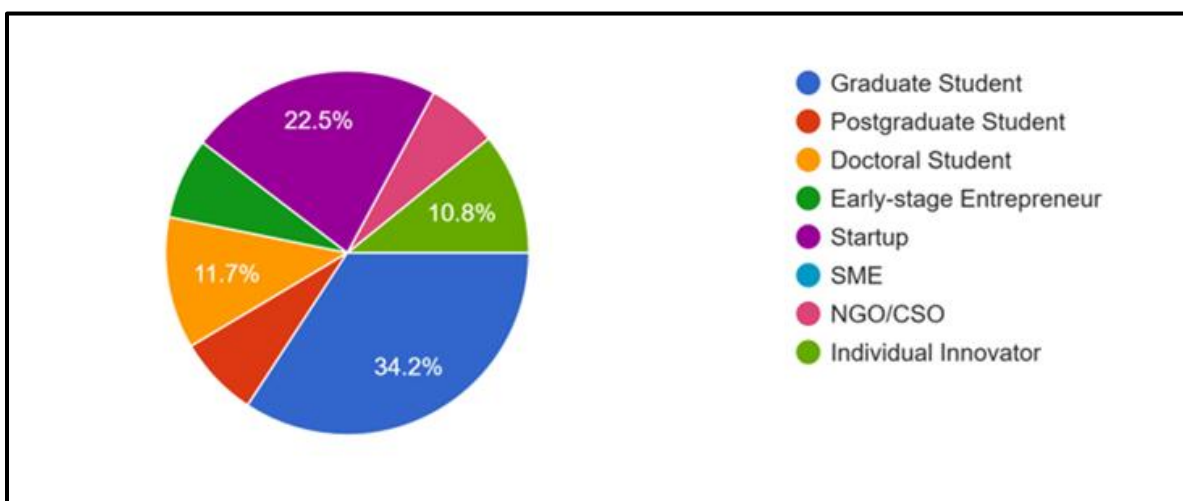


Figure 3: Sector-wise participation profile of Sustainovate 2025 participants

The proposals covered all ten thematic areas identified under the contest, with particularly high engagement in the domains of waste management, circular economy, climate resilience, and AI-driven environmental monitoring. Many submissions demonstrated an encouraging trend toward integrated solutions — combining IoT, biotechnology, renewable energy, and materials innovation to address environmental challenges. This interdisciplinary orientation underscored a clear shift in the mindset of Indian innovators toward systems-level thinking for sustainability.

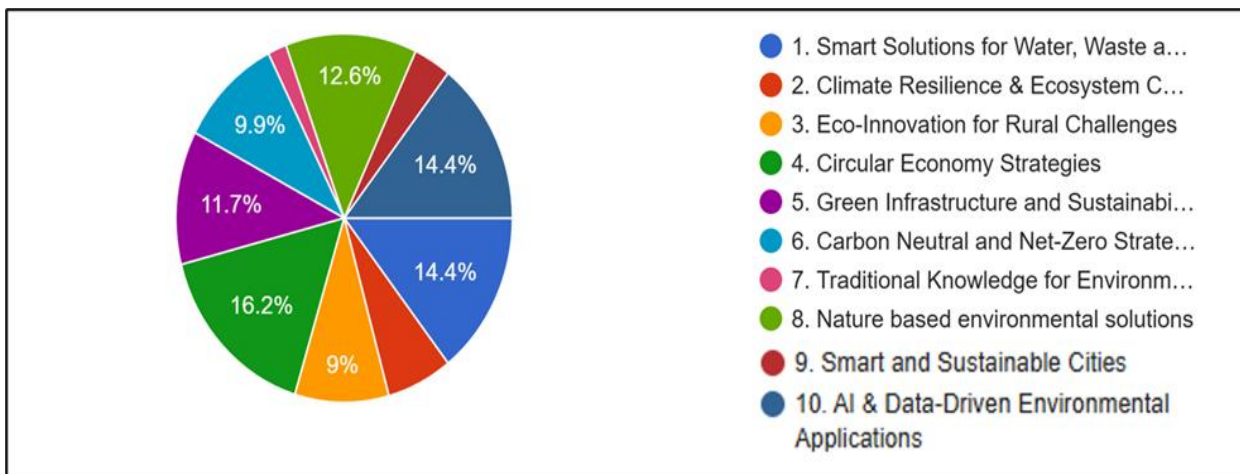


Figure 4: Percentage distribution of applicants across different thematic categories

Another noteworthy aspect of participation was the strong representation of youth and women innovators. A significant proportion of submissions were led by young researchers below the age of 35, many of whom were first-time participants in a national-level innovation platform. Several entries also came from women-led teams, proposing solutions in sectors such as sustainable textiles, waste valorization, and rural circular economy, emphasizing inclusivity and gender representation in the sustainability innovation landscape.

Proposals ranged from early conceptual frameworks and pilot studies to near-commercial prototypes and validated technologies. This diversity highlighted the contest's success in attracting participants at various stages of innovation maturity from ideation to market readiness.

The engagement also extended beyond the submission process. Many participants reached out to CSIR-NEERI for technical guidance, potential collaborations, and access to incubation support, indicating a strong desire for long-term engagement and

mentorship rather than one-time participation. This response reaffirmed the need for institutional platforms like SustaInnovate that not only reward innovation but also nurture innovators through continued support and visibility.

In essence, the response to SustaInnovate 2025 validated the institute's vision of creating a national ecosystem for eco-entrepreneurship. It brought together a vibrant community of scientists, technologists, and entrepreneurs united by a shared commitment to solving environmental problems through innovation and laid a strong foundation for scaling the initiative in future editions.

5. Evaluation Process

The evaluation of proposals under SustaInnovate 2025 – Ecopreneurship Contest followed a rigorous, transparent, and multi-stage process designed to ensure objectivity, inclusivity, and quality assessment. Domain experts evaluated each submission against well-defined parameters that balanced scientific merit, practical feasibility, and societal impact. The process aimed to identify innovations with strong translational potential that could make a meaningful contribution to India's sustainability transition. Each proposal underwent multiple levels of scrutiny, including technical review, innovation potential analysis, and applicability in real-world contexts. Emphasis was also placed on scalability, environmental benefits, and potential for community-level implementation. The collective approach ensured that selected innovations reflected both scientific excellence and a commitment to sustainable development.

5.1 Screening Stage

All proposals underwent a structured first-level evaluation using criteria such as originality, thematic relevance, technical soundness, feasibility, and potential impact. This stage resulted in 20 shortlisted proposals for further consideration. The table below shows the marking criteria of the competition.

Table 1: Marking criteria of the competition

Evaluation Criteria	Maximum Marks	Remarks
1. Relevance to Themes	10	Degree of alignment with one or more challenge areas under the contest themes
2. Originality and Innovativeness	20	Novelty, creativity, and uniqueness of the idea or approach
3. Scientific & Technical Soundness	20	Methodological rigor, technical feasibility, and clarity of execution plan
4. Potential for Environmental Impact	20	Anticipated benefits to the environment, contribution to SDGs, and reduction of ecological footprint
5. Scalability & Replicability / Maturity of Idea	20	Potential for scaling up, adaptability to diverse contexts, and readiness level of the technology or model
6. Social and Economic Relevance	5	Potential benefits to rural/urban communities, livelihood impact, or cost-effectiveness
7. Alignment with National Missions (e.g., LiFE, Net-Zero, Swachh Bharat, Amrit Bharat)	5	Coherence with national sustainability missions and policy frameworks
Total	100	

In case of a tie in final scores, weightage was prioritized in the following order: Originality and Innovativeness (Criterion 2) > Environmental Impact (Criterion 4) > Technical Soundness (Criterion 3) > Scalability (Criterion 5).

5.2 Online Presentation Round

The shortlisted 20 participants were invited to present their innovations in an online evaluation session held on 2nd September 2025. Each participant was allotted 10 minutes for presentation, followed by a 5-minute interaction with the jury.

The jury panel comprised distinguished experts with extensive experience in environmental technology, industrial sustainability, and applied research:

- Dr. Manoj Kumar Panda – Project Coordinator, Raman Science Centre.
- Dr. Kishore Malviya, Director, SMS Envocare Ltd.
- Dr. N. N. Rao, Retired Chief Scientist, CSIR-NEERI
- Dr. Amit Bansiwala, Chief Scientist, CSIR-NEERI

The jury's evaluation was based not only on the technical and scientific strength of the proposals but also on their real-world applicability, scalability potential, and socio-environmental impact. Interactions allowed participants to clarify technical aspects, demonstrate proof-of-concept or prototype readiness, and respond to questions regarding implementation feasibility and alignment with national sustainability goals.

Each jury member independently assessed the presentations and submitted evaluation sheets with scores and written remarks. Following this, aggregate scores were compiled, and the panel held a deliberation session to discuss the merits of top-ranked proposals before finalizing the list of winners.

Evaluation was based on relevance to themes, originality, technical soundness, environmental impact, scalability, social and economic relevance, and alignment with national missions.

6. Jury Deliberations & Selection

After extensive discussion and consensus-building, the jury selected six outstanding innovations for recognition. These proposals demonstrated an optimal balance of novelty, feasibility, and transformative potential, offering practical pathways to address environmental challenges in alignment with India's sustainability mission.

The robust evaluation methodology adopted under SustaInnovate 2025 ensured a transparent, merit-based, and credible selection process, upholding the integrity of the contest and reinforcing its standing as a national platform for scientific innovation and eco-entrepreneurship.

7. Recognition at CSIR Foundation Day

The culmination of SustaInnovate 2025 – Ecopreneurship Contest was marked by a grand recognition ceremony held on 7th October 2025, coinciding with the 84th CSIR Foundation Day at the CSIR-NEERI Auditorium, Nagpur. The event served as both a celebration of innovation and a reaffirmation of CSIR-NEERI's commitment to nurturing

science-driven sustainability solutions that can contribute meaningfully to India's environmental and economic progress.

The recognition ceremony was graced by eminent dignitaries and senior scientists from across the CSIR network, academia, and industry. The Chief Guests of the ceremony were:

- Dr. D. Srinivasa Reddy, Director, CSIR–(IICT), Hyderabad
- Dr. S. Venkata Mohan, Director, CSIR–NEERI, Nagpur
- Mr. Param Sancheti, Executive Director, SMS Envocare Ltd.

The program was anchored by Dr. Amit Bansiwala, Chief Scientist, CSIR-NEERI, who also served as the Convener of SustaInnovate 2025. He provided an overview of the contest's objectives, participation statistics, and the evaluation process, and subsequently announced the names of the six selected eco-innovators who were recognized for their outstanding contributions.

Each recognized innovator was invited on stage and felicitated with a Certificate of Recognition from CSIR-NEERI, acknowledging their creativity, technical excellence, and commitment to sustainability. The ceremony witnessed an enthusiastic audience comprising scientists, researchers, industry representatives, students, and media personnel, who applauded the diverse range of innovations showcased through SustaInnovate 2025.

In a commendable gesture of support towards emerging eco-entrepreneurs, SMS Envocare Ltd., a leading environmental services company, independently sponsored a cash award of ₹25,000/- to each of the six recognized innovators. This collaboration between CSIR-NEERI and the private sector underscored the growing importance of industry–innovation partnerships in accelerating the adoption of green technologies and sustainable business models.

The dignitaries, in their addresses, emphasized the significance of fostering eco-innovation ecosystems that empower youth, researchers, and entrepreneurs to develop scalable, sustainable solutions.

- Dr. S. Venkata Mohan, Director, CSIR-NEERI, highlighted how such initiatives align with national missions like Mission LiFE, Net Zero India 2070, and Atmanirbhar Bharat, and reaffirmed NEERI's role in mentoring innovators beyond the contest stage.
- Dr. D. Srinivasa Reddy encouraged participants to pursue translational research and productization, ensuring that innovations move “from lab to land” for measurable environmental benefit.
- Mr. Param Sancheti commended the quality of ideas presented and expressed his company's willingness to collaborate with young innovators in piloting viable solutions within industrial contexts.

The event also featured an interactive session and exhibition segment, where the recognized innovators briefly showcased their prototypes, models, or conceptual frameworks. The recognition ceremony was not only a moment of celebration but also a launchpad for future engagement. The event symbolized a tangible step toward bridging the gap between scientific innovation and real-world application, reinforcing the role of CSIR-NEERI as a national enabler of eco-entrepreneurship. The enthusiastic participation of industry representatives and the spontaneous networking that followed reflected the contest's success in creating an enduring platform that connects ideas, institutions, and industries for a sustainable future.

The interactive displays drew keen interest from students, researchers, and entrepreneurs alike, sparking insightful discussions on scaling these solutions. Media coverage and digital outreach further amplified the visibility of the contest and its participants. The event also served as a convergence point for fostering future collaborations across academia, startups, and policy bodies. The inspiring stories shared by the innovators resonated deeply, highlighting the human element behind technological innovation.

8. Recognized Innovations

The SustaInnovate 2025 – Ecopreneurship Contest concluded with the recognition of six outstanding innovations that exemplified creativity, technical soundness, and environmental responsibility. These solutions demonstrated the potential to address critical sustainability challenges through scalable, practical, and research-driven approaches.

Each innovator showcased how technology and entrepreneurship can converge to deliver measurable ecological and social benefits.

1. GenX Research – Resilient Ammonia Emission Management in Poultry Farms
(IoT-Based Solution)
2. Parul Balaji Khurana – Waste to Wealth: Circular Revalorization of Floral Waste
(G N Khalsa College, Mumbai)
3. Ambiator Private Limited – Cooling without Warming the Planet
4. SuperData Labs – DEFINE: Dynamic Emission Factors for Integrated Net-Zero
Ecosystems
5. Bisket Labs – Sustainable Printed Circuit Boards from Agricultural Waste
6. Dr. B. Kailashkumar – Banana Fiber Extractor for Small and Marginal Farmers
(Paavai Engineering College, Namakkal)

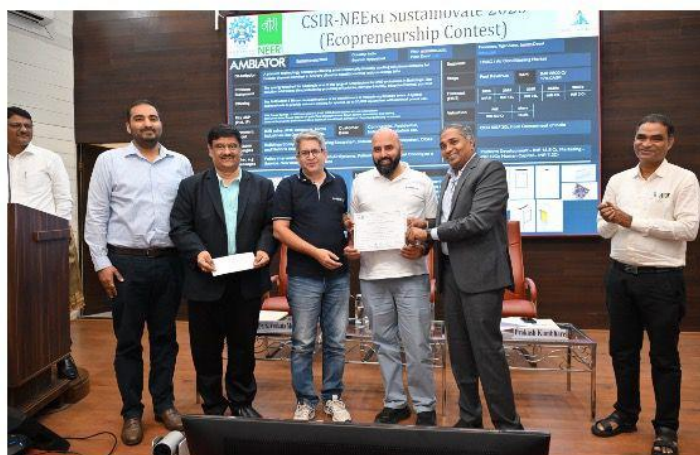


Figure 5: Felicitation of innovators during the Sustainovate 2025 recognition ceremony

9. Outcomes & Impact

The SustaInnovate 2025 – Ecopreneurship Contest emerged as a landmark initiative in promoting sustainability-led innovation, capacity building, and public engagement around green entrepreneurship. Beyond recognizing six exemplary innovations, the program generated several tangible and intangible outcomes that reinforced CSIR-NEERI’s leadership in advancing eco-innovation ecosystems across India.

9.1 Institutional and National Impact

SustaInnovate 2025 successfully created a national-level platform that bridged the gap between scientific research, innovation, and entrepreneurship. By attracting over 110 diverse proposals from across the country, the contest demonstrated the deep interest and readiness among students, startups, and innovators to contribute to India’s sustainability agenda. The initiative strongly resonated with the nation’s commitments under Mission LiFE (Lifestyle for Environment), Net Zero India 2070, and the UN Sustainable Development Goals (SDGs) — aligning with CSIR’s broader mandate to foster research translation for societal and environmental benefit.

The contest also fostered cross-sectoral linkages, encouraging interaction between academia, industry, and research organizations. The active participation of private sector representatives like SMS Envocare Ltd. as both a jury member and sponsor demonstrated growing industry confidence and investment in sustainable innovation. This public–private partnership model, as showcased by SustaInnovate 2025, set a precedent for collaborative frameworks that can accelerate India’s green technology development.

9.2 Capacity Building and Mentorship

The initiative provided participants with visibility, networking opportunities, and expert feedback from leading scientists and industrial experts. The multi-tier evaluation process and the jury interaction sessions gave young innovators exposure to professional review systems, enhancing their ability to refine and position their solutions for real-world application.

9.3 Inspiration and Cultural Impact

The contest instilled a strong sense of eco-entrepreneurial spirit among youth and researchers, encouraging them to think beyond laboratory innovations toward scalable solutions. The event catalyzed awareness on how sustainability can become a viable business opportunity while addressing critical challenges such as waste management, water efficiency, pollution control, and climate resilience. The inclusion of innovators from rural and semi-urban areas highlighted the democratization of innovation and the potential of grassroots science and traditional knowledge to contribute to sustainability transitions.

9.4 Media and Public Engagement

Sustainovate 2025 garnered wide media attention, with leading regional and national newspapers highlighting CSIR-NEERI's pivotal role in fostering eco-entrepreneurship.

A feature article published in Lokmat (dated 9 October 2025, Nagpur edition), titled “नीरी ने ‘सस्टेनोवेट 2025’ में किया ईको-इनोवेशन को प्रोत्साहित”, highlighted the contest's contribution in promoting science-based solutions to environmental problems.

लोकमत समाचार

नीरी ने ‘सस्टेनोवेट 2025’ में किया ईको-इनोवेशन को प्रोत्साहित

नागपुर : सीएसआईआर-राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान (सीएसआईआर-नीरी), नागपुर ने ‘सस्टेनोवेट 2025’ स्पर्धा का आयोजन किया. 84 वें सीएसआईआर स्थापना दिवस के अवसर पर आयोजित स्पर्धा का उद्देश्य पर्यावरणीय समस्याओं के लिए विज्ञान-आधारित और व्यवहारिक नवाचार पहचानना था. इस स्पर्धा में देशभर से 110 से अधिक प्राप्त प्रस्ताव जल, अपशिष्ट, स्वच्छता, सर्कुलर इकोनॉमी, जलवायु परिवर्तन और एआई आधारित पर्यावरणीय उपायों पर केंद्रित थे. मूल्यांकन के बाद छह उत्कृष्ट ईको-इनोवेशन का चयन हुआ. इनमें जेनएक्स रिसर्च का पोल्डी फार्मर्स में अमोनिया उत्सर्जन प्रबंधन (आईओटी आधारित), पारुल बालाजी खुराना का पत्थोरल वेस्ट का सर्कुलर रिवैलोराइजेशन, अम्बिएटर प्रा. लि. का ‘कूलिंग विदआउट वार्मिंग द प्लैनेट’, सुपरडेटा लैब्स का



विजेताओं को सम्मानित करते डॉ. डी. श्रीनिवास रेड्डी व डॉ. एस. वेंकट मोहन.

‘डेपाइन’ डायनामिक एमिशन फैक्टर्स, विस्केट लैब्स का कृषि अपशिष्ट से टिकाऊ प्रिंटेड सर्किट बोर्ड्स और डॉ. वी. केलाशकुमार का बनाना फाइबर एक्स्ट्रेक्टर शामिल थे. विजेताओं को सीएसआईआर-आईआईसीटी के निदेशक डॉ. डी. श्रीनिवास रेड्डी, सीएसआईआर-नीरी के निदेशक डॉ. एस. वेंकट मोहन और एसएमएस एंथोकेयर परम संचेती ने

सम्मानित किया. परिणामों को नीरी के मुख्य वैज्ञानिक डॉ. अमित बंसीवाल ने घोषित किए. चयनित ईको-इनोवेटर्स को तकनीकी सहायता और मार्गदर्शन मिलेगा, ताकि उनके नवाचार समाज और उद्योग में प्रभावशाली बन सकें. अगले वर्ष ‘सस्टेनोवेट 2026’ आयोजित कर देशभर में सतत उद्यमिता और पर्यावरणीय नवाचार को और बढ़ावा दिया जाएगा.

Apna Nagpur
Page No. 4 Oct 09, 2025
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Figure 6: Media coverage of Sustainovate 2025 featured in Lokmat (Nagpur edition, 9 October 2025)

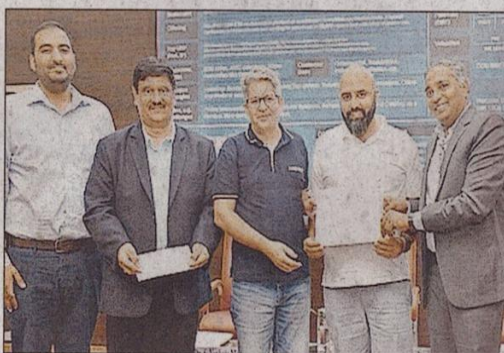
6 Eco-Innovations Feature In NEERI's 'Sustainovate'

Sarfaraz.Ahmed
@timesofindia.com

Nagpur: The CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur, identified six outstanding eco-innovations under its maiden eco-preneurship contest 'Sustainovate 2025'.

This initiative aimed at nurturing science-based, scalable solutions to pressing environmental challenges.

The national-level initiative invited entries from students, startups, researchers, and entrepreneurs to promote sustainable, technology-driven ideas.



Ambiator Private Limited receiving Certificate of Excellence

Over 110 proposals were received from across India, focusing on smart solutions in water, waste, sanitation, circular economy, climate

change, and AI-based environmental applications.

After a rigorous multi-stage evaluation, six innovations were selected: GenX

Research – Resilient Ammonia Emission Management in Poultry Farms (IoT-based solution); Parul Balaji Khurana (GN Khalsa College, Matunga) – Waste to Wealth: Circular Revalorization of Floral Waste;

Ambiator Pvt Ltd – Cooling Without Warming the Planet; SuperData Labs – DE-PINE: Dynamic Emission Factors for Integrated Net-Zero Ecosystems; Bisket Labs – Sustainable Printed Circuit Boards from Agricultural Waste; Dr B. Kailashkumar (Paavai Engineering College) – Banana Fiber Extractor for Small and Marginal Farmers.

CSIR-NEERI will provide

mentorship, technical support, and industry linkages to help the winners refine and scale their solutions for societal and industrial impact.

The innovators were facilitated by Dr D Srinivasa Reddy, director, CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, along with Dr S Venkata Mohan, director, CSIR-NEERI, and Param Sancheti, Executive Director, SMS Envocare Ltd, during the 84th CSIR Foundation Day celebrations at NEERI hall on Tuesday.

Each awardee received a Certificate of Excellence and a cash prize sponsored by SMS Envocare Ltd.

Figure 7: Media coverage of Sustainovate 2025 featured in the *Times of India* (9 October 2025)

An article published in The Times of India (dated 9 October 2025), titled “6 Eco-Innovations Feature in NEERI's 'Sustainovate',” highlighted CSIR-NEERI's initiative in identifying six outstanding eco-innovations under its maiden eco-preneurship contest Sustainovate 2025. The coverage recognized the contest as a pioneering platform fostering eco-innovation and green entrepreneurship by nurturing science-based, scalable solutions to pressing environmental challenges. It emphasized NEERI's national-level outreach that invited participation from students, startups, researchers, and entrepreneurs, thereby promoting sustainable, technology-driven ideas for a greener future.



Figure 8: Media coverage of Sustainovate 2025 featured in *Dainik Bhaskar* (9 October 2025)

An article published in *Dainik Bhaskar* (dated 9 October 2025, Nagpur edition), titled “नीरी : ईको-इनोवेशन को दिया गया बढ़ावा,” reported that CSIR-NEERI, Nagpur organized the ‘Sustainovate 2025’ eco-innovation competition to promote eco-entrepreneurship. The article mentioned that more than 110 entries were received from students, startups, researchers, and entrepreneurs across India, focusing on areas such as water, waste, sanitation, clean energy, circular economy, and climate change. It highlighted that the selected participants were felicitated during the event and that NEERI’s initiative is playing a vital role in encouraging science-based and technology-driven sustainable solutions.

The media visibility not only strengthened the institute's public outreach but also encouraged local innovators, industries, and educational institutions to explore participation in future editions.

9.5 Key Achievements at a Glance

- Engaged 110+ innovators from across India, representing academia, startups, NGOs, and individuals.
- Recognized six high-potential innovations with tangible environmental and societal benefits.
- Fostered industry–innovation partnerships, with SMS Envocare Ltd. supporting recognition awards.
- Enhanced national visibility of CSIR-NEERI's sustainability and innovation initiatives through media coverage and stakeholder engagement.
- Initiated mentorship and collaboration pathways for future development of eco-technologies.

11. Way Forward

Building on the success of SustaInnovate 2025, CSIR-NEERI aims to establish it as a flagship national platform for eco-innovation and sustainability-driven entrepreneurship. The initiative will be institutionalized as an annual contest, integrated with NEERI's R&D and societal outreach programs, supported by a dedicated online portal for submissions, mentoring, and tracking innovations. Recognized innovators will receive post-award guidance, including technical validation, intellectual property support, and market linkages, ensuring their solutions progress from prototypes to commercially viable or socially impactful technologies.

Future editions will strengthen connections with industry, startups, educational institutions, and national missions, promoting collaboration, pilot demonstrations, and student engagement through hackathons and internships. SustaInnovate 2026 will expand into emerging areas such as climate-tech, green AI, and low-carbon materials, supported

by thematic mentoring and regional hubs. The long-term vision is to evolve SustaInovate into a national innovation ecosystem, empowering communities and institutions to co-create sustainable solutions and positioning CSIR-NEERI as a leader in India's journey toward a carbon-neutral, climate-resilient future.

12. Disclaimer

The recognition accorded under SustaInovate 2025 is intended to acknowledge the effort and innovation demonstrated by the selected participants. It does not imply or constitute an endorsement, certification, or validation by CSIR-NEERI of the technologies, products, or innovations. The responsibility for further development, testing, deployment, and performance claims rests solely with the respective innovators/organizations.

13. CSIR-NEERI SustaInovate Team

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