

I-NFORM

Quarterly Newsletter of GDC September 2025 | Issue: 11

Shell-GDC I-GNITE Program

Al for Science:
Advancing Energy Decarbonisation and Low Carbon Innovation



Register Now



Table of Contents

S. No.		Page No.
1	Shell–GDC I-GNITE Program 2025 Officially Launched at "Shell Changemakers of Tomorrow 2025", Bengaluru	3
2	Seminar on DST-GDC I-NCUBATE Program: A Gamechanger for Deep-tech Startups	5
3	Spotlight on Innovation: Startup Showcase at DST-GDC I-NCUBATE Seminar	7
4	Knowledge Partnership: CZC-GDC Entrepreneurial Impact Bootcamp	9
5	Empowering Educators to Lead Innovation: I-NDUCT Program Bootcamp at Crescent Innovation and Incubation Council (CIIC), Chennai.	10
6	DST Cohort 05 Underway: Bridging the Gap from Lab to Market	11
7	GDC Collaborates with IITM Pravartak for I-NSPIRE Bootcamp	12
8	GDC's I-NCUBATE Presented at IIT Bombay's Project Titanium	13
9	CLIMAFIX Summit 2025: Driving Industrial Decarbonization and Innovation	13
10	HydroMingle Chennai 2025	14
11	AIC Banasthali's Innovation Conclave	15
12	SRM University's Startup Summit 1.0	16
13	Start-Up VyomIC Plans to Build India's First Private Global Satellite Constellation, Raises US\$ 1.6 Million in Pre-Seed Funding	17
14	IIT Madras-incubated Deep Tech Start-up Wankel Energy Systems raises 1 Million US dollars in fundina	18

1. Shell-GDC I-GNITE Program 2025 Officially Launched at "Shell Changemakers of Tomorrow 2025", Bengaluru



L–R:Dr. Raghuttama Rao, CEO, GDC; Mr. M. Subramanian, CMO, GDC; Mr. Anand K.V., Chief Innovation Officer, GDC; Mr. Ajay Mehta, Vice President, Research and Innovation, Shell; Mr. Indranil Rudra, General Manager, Computational Science & Modeling, Shell Technology Centre, Bangalore; Mr. Anand Narayanan Krishnamoorthy, Computational Science Researcher, Shell Technology Centre, Bangalore; Mr. David Kordonowy, Head – Commercial Partnerships, Shell Technology Centre, Houston; Mr. Sreenivas Raghavendran, GameChanger / Commercial Partnerships Manager, Shell Technology Centre, Bangalore.

The **Shell-GDC I-GNITE Program 2025** was officially launched on **September 17** at the prestigious **Shell Changemakers of Tomorrow 2025** event held at the Sheraton Grand Hotel & Convention Center, Bengaluru.

This flagship program, a collaboration between **Shell GameChanger** and **GDC, IIT Madras**, aims to identify and nurture India's most promising Al-driven STEM startups and translational research teams focused on sustainability and low-carbon innovations.

The I-GNITE Program marks GDC's third major corporate partnership, following successful initiatives with ArcelorMittal's XCarb India Accelerator for steel sector decarbonization and TDK Corporation to foster breakthrough health technology innovations.

Applications are now open, and an **Open House session** is scheduled for **October 27th**, **2025**—a 90-minute online webinar designed to provide an overview of the program, application details, and an interactive Q&A session to help prospective applicants.

Interested startups and research teams working on AI for Science and low-carbon solutions are encouraged to apply and take advantage of this unique opportunity to accelerate their innovations towards market readiness.







Open House

Shell-GDC I-GNITE Program

Al for Science:

Advancing Energy Decarbonisation & Low Carbon Innovation

- October 27th
- 4:00 5:30 PM

Register Now!



Is your startup or research driving Al-powered low-carbon innovation?

Join us to explore how Shell-GDC I-GNITE can accelerate your decarbonisation journey.

Program Details











2. Seminar on DST-GDC I-NCUBATE Program: A Gamechanger for Deep-tech Startups





Pic: Glimpses from the DST-GDC I-NCUBATE Program Seminar July 2025 at IIT Madras

On **28th July 2025,** IIT Madras hosted a seminar on the **DST-GDC I-NCUBATE Program**, convening leaders from government, academia, industry, and venture capital to discuss strategies for fast-tracking deep-tech startups emerging from Indian research labs.

The program, a collaboration between the **Department of Science and Technology (DST)** and **GDC**, equips STEM researchers with entrepreneurial skills and commercialization pathways. Since inception, I-NCUBATE has nurtured over **40 startups** across **31 institutions** in **15 states**, with ambitious plans to support nearly 200 startups through 20 cohorts.

The seminar featured keynote insights from **Mr. Ramesh Mangaleswaran, (Hon.)** Adjunct Professor of Practice, Desai Sethi School of Entrepreneurship, IIT Bombay & Senior Partner Emeritus, McKinsey & Company, and **Dr. Pramod Shankar**, Scientist-D, Department of Science & Technology, Government of India, who highlighted the critical role of programs like I-NCUBATE in building India's deep-tech ecosystem.

A highlight of the event was the panel discussion on "Building the Deep-tech Nation: Talent, Technology & Trust", moderated by Dr. Raghuttama Rao, CEO, GDC. The panel brought together:

- Mr. Vishesh Rajaram, Managing Partner, Speciale Invest
- Mr. Kunal Upadhyay, Co-founder, IIMA Ventures
- **Prof. Satyanarayanan R**. Chakravarthy, Professor, Department of Aerospace Engineering & Head, National Centre for Combustion Research & Development (NCCRD), IIT Madras

Their insights shed light on bridging the gap between cutting-edge technology and market readiness, emphasizing the importance of talent development, collaboration, and trust in India's deep-tech journey.

Session recordings here:



Address by the Guest of Honour Dr. Pramod Shankar, Scientist-D, DST, Gol



Address by the Chief Guest Mr. Ramesh Mangaleswaran, (Hon.) Adjunct Professor of Practice, Desai Sethi School of Entrepreneurship, IIT Bombay & Senior Partner Emeritus, McKinsey & Company,



Panel on Building the Deep-tech Nation: "Talent, Technology & Trust"



DST-GDC I-NCUBATE: Deep-Tech Game Changer, Mr. KV Anand, CIO, GDC

3. Spotlight on Innovation: Startup Showcase at DST-GDC I-NCUBATE Seminar

A highlight of the DST-GDC I-NCUBATE Seminar was the dynamic presentations by six standout startup teams from the program's first four cohorts. These deep-tech ventures shared valuable insights, learnings, and milestones from their journey through I-NCUBATE's entrepreneurial bootcamp.

Each startup brought a unique solution to the table demonstrating the program's impact in turning research into real-world impact.

Biopack Labs from IIT Madras began with a mission to combat plastic pollution through biodegradable alternatives to single-use plastics. Backed by years of research, they entered the program confident in their solution. But customer discovery revealed regulatory hurdles and market saturation in some segments. This prompted a strategic pivot toward biodegradable takeaway containers—a niche with strong demand and fewer effective solutions. The team is now aligning their innovation more closely with real-world needs, refining both their product and business approach.

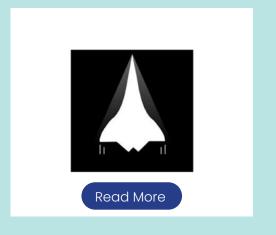


CURESURE

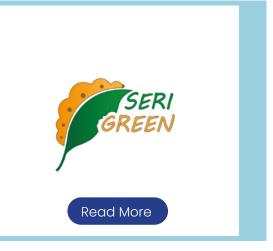
Read More

Curesure, from Sri Ramachandra Institute of Higher Education and Research (DU), Chennai, set out to commercialize a patented mucoadhesive gelfor treating or allucers in cancer patients. Confident in their science, the team believed the product would quickly find traction. But through the program, they discovered a critical gap in their understanding—the real customers were not patients, but oncologists. Further exploration revealed that or all mucositis wasn't always seen as an unmet need. This insight reshaped their strategy entirely. Curesure is now re-evaluating unmet needs in oncology, guided by a stronger focus on real-world relevance and customer validation.

Machfly Aerospace, founded by researchers from IIT Jammu, set out to build high-performance, turbojet-powered unmanned aerial platforms for defence applications. Confident in their technology's superiority, the team initially assumed it would naturally fit defence needs. But through the I-NCUBATE program, they realized that success in this space requires much more than performance—it demands deep stakeholder engagement, trust-building, and alignment with complex procurement systems. Their approach has since shifted toward co-developing tailored solutions in collaboration with defence stakeholders, marking a strategic evolution from tech-first to mission-aligned innovation.



SeriGreen Technologies, founded by researchers from IIT Madras and IIITDM Kancheepuram, began with an AI-powered tool to predict disease outbreaks in silkworm-rearing sheds. Rooted in a deep family tradition of sericulture, the team had a strong grasp of the ecosystem's pain points. But during the program, they discovered that chemical contamination—not disease—was a more urgent concern for silk farmers. This insight led to a strategic pivot and sharper customer segmentation. SeriGreen is now focused on delivering actionable solutions that tackle real challenges in the sericulture industry, starting with contamination control.



OPENWATER

Read More

Team Openwater, from IISc Bengaluru entered the program with a strong wastewater treatment solution, already backed by early adopters and funding. But they were seeking a strategy to scale. The program pushed them to rethink their approach, and in the process, they began exploring a completely different space—geriatric care. As they navigated this new domain, they realised the real customers might not be the elderly themselves, but the caregivers who support them. The team is now diving deeper into this segment, aiming to solve business risks tied to unskilled caregiving in for-profit eldercare organisations.

Team Quixotix, from NIT Rourkela, developed a handheld bioprinter aimed at revolutionizing wound care by printing living tissue directly onto wounds. Despite strong research and a patented prototype, early market response was limited, and investor interest was low. Through the I-NCUBATE program, they realized their deep technical knowledge wasn't matched by an understanding of user needs. Engaging with surgeons and patients reshaped their approach from pitching features to solving real problems. The program helped align the team around validated insights, guiding them to build solutions that truly matter in surgical care.



Dive into this inspiring video where these breakthrough teams share their real stories, key insights, and transformative journeys from the GDC I-NCUBATE program.







4. Knowledge Partnership: CZC-GDC Entrepreneurial Impact Bootcamp



Pic; Glimpses from the DST-GDC I-NCUBATE Program Seminar July 2025 at IIT Madras

GDC is the Knowledge Partner for the fifth edition of the Carbon Zero Challenge—an All-India Eco Innovation and Entrepreneurship Competition hosted at IIT Madras. This initiative accelerates the lab-to-market journey of eco-innovations by funding solutions from proof-of-concept to working prototypes.

As Knowledge Partner, GDC is mentoring 25 selected teams through a two-week Entrepreneurial Impact Bootcamp, part of its I-NITIATE Program. Beyond instruction, GDC focuses on developing entrepreneurial mindsets, refining business acumen, and helping teams craft clear, scalable paths for their innovations.

On July 19, the second cohort of 13 teams completed the bootcamp, sharing testimonials that highlight newfound clarity and a deeper understanding of customer needs and sustainable venture creation. Through this partnership, GDC continues to bridge research and real-world impact—equipping innovators with both the tools and mindset to build what comes next. Special thanks to the CZC Team led by Prof. Indumathi Nambi, IIT Madras, for their leadership and collaboration.

"The boot camp helped align our thought process and adopt a more practical, business-oriented approach."

-Team Birdscale Spacelabs

"It was valuable to gain key insights into entrepreneurship as a beginner and to develop the mindset of an entrepreneur. I also gained a deeper understanding of customer needs."

-Team IGNIT Technical Solutions

View more testimonials

5. Empowering Educators to Lead Innovation: I-NDUCT Program Bootcamp at Crescent Innovation and Incubation Council (CIIC), Chennai.



Pic: Educators Engaged in Hands-On Learning at the I-NDUCT Bootcamp

GDC conducted an Innovation and Entrepreneurship Bootcamp from August 5th to 7th, 2025, under the I-NDUCT program, hosted at CIIC.

Crafted exclusively for educators and academic leaders ready to champion entrepreneurship and research-driven transformation, this immersive three-day workshop aimed to build an innovation-led academic culture with a strong focus on real-world impact.

The bootcamp empowered participants to reimagine their roles as catalysts for innovation—bridging the gap between academic research and entrepreneurial action and equipping them to drive meaningful change within their institutions.

6. DST Cohort 05 Underway: Bridging the Gap from Lab to Market











Pic: Moments from the in-person workshop of DST-GDC I-NCUBATE Cohort 05 at IIT Madras.

With four successful cohorts completed, the DST-GDC I-NCUBATE Program continues its mission to bridge the critical gap between technical brilliance and market readiness—one of the biggest challenges that startups face.

This collaboration between the Department of Science and Technology (DST) and GDC empowers researchers, faculty, and students to transform lab-based innovations into scalable startups. The program focuses on shifting mindsets from technology-first to customer-centric, engaging startups with over 100 stakeholders across an intensive eight-week journey. With expert mentorship and hands-on guidance, participants refine their ideas and build impactful, market-ready solutions.

The fifth cohort launched with a four-day in-person workshop at IIT Madras from August 16–19, 2025, featuring 11 high-potential startups. This year's cohort welcomed first-time participants from Sanjivani University (Kopargaon), Sri Sairam Engineering College (Chennai), E-Yuva Centre at Atmiya University (Gujarat), and Nagaland University.

The workshop provided a vibrant platform for startups to collaborate with mentors, gain practical insights, and sharpen their business strategies as they embark on their journey of growth and transformation.

Are you ready to transform your lab-based innovation into a thriving startup?

Whether you're a researcher, student, faculty member, or startup founder, the journey from proof-of concept to product-market fit starts here.

Applications are now open for the DST-GDC I-NCUBATE Cohort 07

Apply Now

7. GDC Collaborates with IITM Pravartak for I-NSPIRE Bootcamp

GDC partnered with IITM Pravartak Technology Innovation Hub to conduct a focused I-NSPIRE bootcamp from July 11 to 29, 2025, training 10 early-stage science and tech startups.

I-NSPIRE, GDC's two-week intensive program, helps startups move from prototype to proof of business. Through hands-on mentoring, teams gain clarity on customer segments, value propositions, and revenue potential—crucial for building scalable, repeatable business models.

This collaboration reinforced GDC's commitment to enabling science-based innovators to validate their market fit and sharpen their entrepreneurial thinking early in their journey.





Pic; Moments from I-NSPIRE Ch 11 with IITM Pravartak Teams

Ecosystem Engagements

8. GDC's I-NCUBATE Presented at IIT Bombay's Project Titanium



Pic: Dr. Raghuttama Rao in conversation with faculty and researchers at IIT Bombay

Following the launch of **Project Titanium**, a pre-incubation program by IIT Bombay aimed at fostering entrepreneurship among researchers and innovators, **Dr. Raghuttama Rao, CEO of GDC**, was invited to engage with faculty and researchers across the institute.

In his session on 24th September, Dr. Rao introduced GDC's flagship **I-NCUBATE Program**, a nationally recognized model for bridging the lab-to-market gap in academic research. Built around a rigorous, structured customer discovery process, I-NCUBATE transforms research teams into entrepreneurially-minded problem solvers.

With **28 cohorts**, the program has trained over **216 teams**, involving **782 entrepreneur leads** and **244 faculty leads** across **53 STEM institutions**. Dr. Rao outlined how I-NCUBATE can complement **Project Titanium** by providing a proven framework for early-stage ventures to test assumptions, validate their markets, and build a foundation for scalable, impact-driven enterprises.

9. CLIMAFIX Summit 2025: Driving Industrial Decarbonization and Innovation

CLIMAFIX, India's largest climate startup and innovation summit, jointly organized by IIT Madras and the Energy Alternatives India (EAI), was held on September 11–12, 2025 at the IIT Madras Research Park. Since its inception, GDC has been a proud mentor and patron of the summit, supporting the growth of climate-focused startups and innovations.

This year, the summit concentrated on climate startups and technologies aimed at industrial decarbonization at scale. The program featured focused deep-dive sessions on critical themes such as bio-solutions, energy efficiency, AI and digital technologies, and deep tech innovations that can drive significant carbon reduction across industries.

13

Panel on "Translating Academic Research into Industry Implementation



Pic: Dr. Raghuttama Rao, CEO of GDC, sharing his insights during the panel on "Translating Academic Research into Industry Implementation" at CLIMAFIX Summit 2025.

A key highlight of CLIMAFIX Summit 2025 was the panel discussion on "Translating Academic Research into Industry Implementation." This insightful conversation brought together leading experts from academia, investors, and industry to discuss the challenges and opportunities involved in moving research outcomes beyond the laboratory into practical, scalable industrial applications. GDC's CEO, Dr. Raghuttama Rao, was a distinguished panelist, sharing his expertise on how innovation ecosystems can accelerate the commercialization of research in the climate tech space.

Special Mentions at CLIMAFIX Summit 2025



Pic: Mr. M. Subramanian, CMO, GDC, receiving Special Mention at CLIMAFIX Summit 2025

As part of the summit, organizers recognized individuals and organizations making significant contributions to climate innovation, sustainability, and environmental impact. Two Special Mention sessions were held—one each day of the event—to highlight exemplary efforts in advancing practical climate solutions.

In the first session, GDC's Chief Marketing Officer, Mr. M. Subramanian, received special mention for his outstanding work supporting startups. His strategic management expertise and handson guidance have been invaluable to many climate-focused startups and entrepreneurs within the GDC ecosystem.

10. HydroMingle Chennai 2025

The Waterpreneur Studio – ICCW hosted HydroMingle Chennai 2025 on September 5th at IIT Madras Research Park, bringing together startups, innovators, and investors driving India's water innovation sector. The event fostered collaboration, idea exchange, and feedback to advance impactful water solutions.



Pic: Dr. R. Raghuttama Rao, CEO, GDC, delivering his keynote address at HydroMingle Chennai 2025.

Dr. R. Raghuttama Rao, CEO of GDC, delivered the keynote during the session "Tapping the Flow: Catalyzing India's Water Innovation Ecosystem," emphasizing the role of entrepreneurial mindset and market insights in scaling water innovations. He highlighted how GDC's I-NCUBATE Program empowers startups to navigate the complexities of this ecosystem.



Pic: Mr. KV Anand, CIO, GDC & Chief Mentor at WPS-ICCW, moderating a panel on product-market fit with startup founders.

Mr. Anand KV, Chief Innovation Officer and Chief Mentor of WPS-ICCW, moderated a panel titled "Lessons from the Frontlines of Product-Market Fit," featuring three startups—who also happen to be GDC I-NCUBATE alumni—sharing valuable learnings from their journeys.

11. AIC Banasthali's Innovation Conclave

Dr. Raghuttama Rao, CEO, GDC was one of the esteemed guests at the Innovation Conclave organized by AIC Banasthali on 25th September to mark the successful culmination of the DST NIDHI-supported WE Invest Accelerator Program.

Dr. Rao shared valuable insights that inspired the women-led DeepTech startups participating in the program, emphasizing the vital role of innovation and entrepreneurship in scaling impactful technologies.





Pic: Dr. Raghuttama Rao, CEO, GDC, at the Innovation Conclave hosted by AIC Banasthali

GDC has a strong history of collaboration with AIC Banasthali through it's I-NDUCT and I-NCUBATE programs, working together to nurture and accelerate early-stage startups. This partnership reflects a shared commitment to empowering entrepreneurs, particularly women innovators, by providing them with mentorship, resources, and access to a vibrant ecosystem.

12. SRM University's Startup Summit 1.0



Pic: Dr. Raghuttama Rao delivering the Chief Guest Address at Startup Summit 1.0.

Startup Summit 1.0, organized by **SRM University** and held on **23rd and 24th September** at its **Kattankulathur campus in Chennai**, was a vibrant, student-led initiative designed to foster innovation and entrepreneurship among aspiring young changemakers.

Dr. Raghuttama Rao, CEO, GDC, was invited as the Chief Guest for the event. In his address, he highlighted the importance of transforming innovative ideas into impactful, real-world ventures. Drawing on his extensive experience in fostering entrepreneurship and innovation, he emphasized the need for students to navigate challenges with agility, prioritize practical problem-solving, and adopt a strategic mindset as they advance on their entrepreneurial paths.

Startup news and updates

13. Start-Up VyomIC Plans to Build India's First Private Global Satellite Constellation, Raises US\$ 1.6 Million in Pre-Seed Funding



VyomIC, an alumnus of GDC's I-NCUBATE Cohort 27 and founded by IIT Madras graduates, has secured \$1.6 million in pre-seed funding to develop India's first private global satellite constellation.

Originally known as Aerial Cluster, the team started by creating innovative aerial LED drone displays for events. Guided by GDC's I-NCUBATE Program, they expanded their market focus from limited drone shows to targeting high-budget corporate events after deep customer discovery and strategic pivots. The mentorship helped them refine their business model, emphasizing real-world feedback over assumptions.

Today, VyomIC is scaling rapidly with a bold vision to revolutionize satellite technology, leveraging the entrepreneurial skills and market insights gained through the I-NCUBATE Program.

Want to learn more about Aerial Cluster's journey and their experience with the I-NCUBATE Program?

Read More

Startup news and updates

14. IIT Madras-incubated Deep Tech Start-up Wankel Energy Systems raises 1 Million US dollars in funding



We are pleased to celebrate the remarkable achievement of Wankel Energy Systems (WES), an alumnus of GDC's I-NCUBATE Program. Founded by IIT Madras alumni, WES has successfully raised \$1 million in pre-seed funding led by Shastra VC to advance their innovative energy recovery technology.

WES's journey began with a strong technical foundation, but it was through the I-NCUBATE Program that their focus sharpened. By engaging directly with industry stakeholders and potential customers, they identified key market segments and refined their business approach. This guidance helped them transition from a purely technical solution to a scalable business model with real-world impact.

WES's patented Dynamic Volumetric Control Expander is set to revolutionize energy efficiency in process industries by harnessing the untapped potential of saturated steam. Their vision to deploy over 1,000 units globally over the next decade highlights their commitment to tackling global energy challenges.

To learn more about Wankel Energy Systems' inspiring journey through the I-NCUBATE Program and watch their story unfold:

Read More





Contact Us

If you have any queries, reach out to us at equiries@gdciitm.org

To stay updated about GDC's program and events, visit: www.gdciitm.org

Follow us on Social media: https://www.linkedin.com/company/gdciitm/