INNOVATIONS FOR HIGH IMPACT INDUSTRIAL DECARBONIZATION

Insights from CLIMAFIX Summit 2025

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Foreword

Industrial decarbonization is gaining attention in India as heavy industries begin evaluating how to reduce emissions while maintaining reliability, operational continuity, and cost control. Although several climate technologies now exist at different stages of maturity, their deployment depends on whether they align with industrial systems, procurement logic, and risk frameworks. CLIMAFIX was set up to create a space where startups building solutions, industries expected to adopt them, and investors considering long-term commitments can engage around these practical questions rather than abstract climate narratives.

The 2025 edition of CLIMAFIX focused on technologies and models relevant for industrial processes, including energy systems, materials, waste streams, and deep-tech pathways. Through expert talks, panel discussions, startup journeys, and pitch sessions, participants discussed how industries evaluate new technologies, the constraints that shape adoption, and what mechanisms are required to move solutions from pilot demonstrations to operational use. This report synthesizes those discussions into a non-promotional format that can be used by corporates exploring decarbonization opportunities, founders shaping product and go-to-market choices, and researchers working on translational climate technologies.

CLIMAFIX is jointly driven by **Energy Alternatives India (EAI)**, the **Energy Consortium at IIT Madras Research Park**, and **TiE Chennai.**

Through CLIMAFIX, both organizations aim to reduce the gap between climate innovation and industrial adoption by grounding the conversation in performance data, integration requirements, procurement realities, and viable business models rather than solely in emissions outcomes. The perspectives consolidated in this report are intended to support that objective.

Narasimhan Santhanam, Co-Founder
Energy Alternatives India (EAI)

Prof. Satya Seshadri, Head – Energy Consortium
IIT Madras Research Park

About the Co-ordinators

Narasimhan Santhanam (Energy Alternatives India)

Narasimhan Santhanam, Co-Founder and Director at Energy Alternatives India (EAI), works at the intersection of climate innovation and industry adoption. With a background from IIT Madras and IIM Calcutta, he has spent more than a decade engaging with climate and sustainability entrepreneurs across renewable energy, bio-economy, energy efficiency, and circular materials. Through research, advisory initiatives, and ecosystem programs, he has collaborated with corporates, investors, and startups on market analysis, feasibility, and deployment strategies for emerging climate technologies. His work at EAI has helped structure conversations between technology developers and industry stakeholders, particularly around adoption barriers, pilot design, and commercialization pathways.

Satya Seshadri (The Energy Consortium, IIT Madras)

Prof. Satya Seshadri leads the Energy Consortium at IIT Madras, which brings together industry, researchers, and startups to accelerate deployment-oriented work in energy and climate domains. His experience spans translational research, industrial collaboration, and technology validation in areas such as grid systems, storage, industrial efficiency, hydrogen, and renewable integration. Through the Consortium, he has supported industry-funded research, pilot-scale technology demonstration, and corporate problem statements that bridge academic research with on-ground industrial needs. His efforts focus on making climate innovation more testable, financable, and deployable by aligning research capabilities with the operational priorities of large energy users.

About EAI

Energy Alternatives India (EAI) is a research and ecosystem organization focused on climate innovation, clean technologies, and the practical challenges of deploying solutions in real markets. Established in 2008, EAI works across multiple domains that intersect with industrial decarbonization, including renewable energy, circular economy materials, energy efficiency, sustainable agriculture, and bio-energy. Its work encompasses research reports, advisory engagements, market analysis, and ecosystem programs designed to connect climate-tech founders with industry adopters, investors, and sector partners.

EAI engages with corporates, startups, and investors to clarify commercial constraints, deployment barriers, and industrial requirements that influence technology adoption. Through structured research and dialogue, EAI aims to surface the operational, procurement, and financing considerations that shape whether climate technologies move from pilot to scale. EAI also co-anchors platforms such as CLIMAFIX Summit, where cross-stakeholder discussions take place around practical decarbonization pathways for heavy industries.

Below is an overview presentation that highlights EAI's focus areas, engagement approach, and its role in the climate innovation ecosystem:

🔗 **Watch on YouTube - Helping Corporate Leaders Accelerate India's Decarbonization Journey**

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Introduction

CLIMAFIX is **India's largest climate startup summit**. Organized by the Energy Consortium - IIT Madras, EAI & TiE - Chennai, the event whad **400** climate startups, **150** investors, and over **250** senior corporate professionals.

Dates: Sep 11 & 12, 2025
Venue: IIT Madras Research Park

1.1 How This Report Was Built

This report synthesizes insights across:

- Industry expert talks
- Corporate-led and investor panels
- Startup journeys and impact pitches
- Academia–industry translation sessions

Insights were consolidated across sessions and themes, rather than mapped one-to-one with the agenda, to surface patterns relevant to deployment, adoption, and scale.

1.2 Overview of CLIMAFIX 2025

The 2025 edition of CLIMAFIX is a serious effort at bringing together three key stakeholders in the climate innovation ecosystem - **startups, investors, and industry stakeholders**.

With the above objective, and considering the aspirations of each of these stakeholder segments, the summit has the following highlights:

The summit is divided into four half-day sessions, with the following themes for each:
Day 1, first half - Bio-solutions
Day 1, second half - Energy efficiency & AI
Day 2, first half - Deep tech
Day 2, second half - Translational research

Each of the half day sessions comprises the following components:

- **Startup Journey** - narration of startup journeys by founders of successful and high impact climate startups
- **Expert Talks** - climate innovation insights from specialists and experts from relevant industries
- **I3 - Industry Investor Insights** - comprising professionals from industry & investing community who share their insights on how to scale climate innovations
- **AI 4 Climate** - with the growing importance of AI in all domains of climate solutions, we will include one expert talk in each of the sessions on the contributions of AI to that theme.
- **Impact Pitches** - 5-7 pitches from curated climate startups

Sponsors 2025

SCALE is a climate innovation platform connecting industry leaders, startups, and investors to accelerate scalable decarbonization technologies for low-carbon industrial systems.

Technip Energies is a global engineering and technology company that designs and builds large-scale infrastructure for the energy industry, focusing on the transition to low-carbon solutions like hydrogen and carbon capture.

Natur-Tec is a company that creates and manufactures certified compostable bioplastics, such as bags, cutlery, and packaging, designed to turn back into soil instead of remaining as waste.

Orbi2aNext is a Chennai-based purpose-driven enterprise that transforms ideas into high-impact solutions across project management, renewable energy, circular economy, and talent transformation.

Yantra Harvest is an energy services company (ESCO) that provides turnkey engineering solutions—such as specialized turbines and motor drives—to help heavy industries reduce their energy consumption, costs, and carbon emissions.

IN44 Capital is a Chennai-based venture capital firm that invests in and mentors early-stage startups specifically within the technology-driven business-to-business (B2B) sector.

DPurpose Foundation is a non-profit organization that empowers young innovators and women from smaller towns in India by providing mentorship, training, and resources to turn their sustainable and tech-driven ideas into real-world solutions.

Startup Singam is South India's first business reality television show (similar to Shark Tank) that provides a platform for Tamil-based entrepreneurs to pitch their business ideas to investors for funding, mentorship, and growth.

The ***ITEL Foundation*** is a non-profit organization that partners with academic institutions and industry leaders to incubate deep-tech startups and develop advanced technologies in areas like urban mobility, cybersecurity, and healthcare to solve large-scale national challenges.

The ***IIT Madras Research Park*** (IITMRP) is a first-of-its-kind innovation hub that connects industry leaders with academic experts to collaborate on deep-tech research, startup incubation, and the commercialization of new technologies.

HDFC Parivartan is HDFC Bank's umbrella corporate social responsibility (CSR) initiative that works to transform rural communities through projects in education, sanitation, sustainable farming, and financial literacy.

Prominent startups at CLIMAFIX summit editions

View the full ***CLIMAFIX Startup Ecosystem*** *featuring* ***440+ participating startups***

CLICK HERE

www.climafix.in

Investors at CLIMAFIX 2025

Corporates at CLIMAFIX 2025

1.3 CLIMAFIX over the years

- November, 2022
- Total Delegates: 550
- Startups: 250 | Investors: 100
- Industry & Others: 200

2022

EDITION 1

Our journey kicked off with an energetic crowd of 500 delegates and solid support from experts and investors alike.

- September, 2023
- Total Delegates: 600
- Startups: 300 | Investors: 125
- Industry & Others: 175

2023

EDITION 2

Building on success, the summit drew steady numbers while investor interest surged, signaling growing momentum.

- September, 2024
- Total Delegates: 650
- Startups: 300 | Investors: 150
- Industry & Others: 200

2024

EDITION 3

With deeper conversations and sharper focus, expert and investor participation soared - even as we welcomed a more targeted audience.

- September, 2025
- Total Delegates: 900
- Startups: 350 | Investors: 200
- Industry & Others: 300

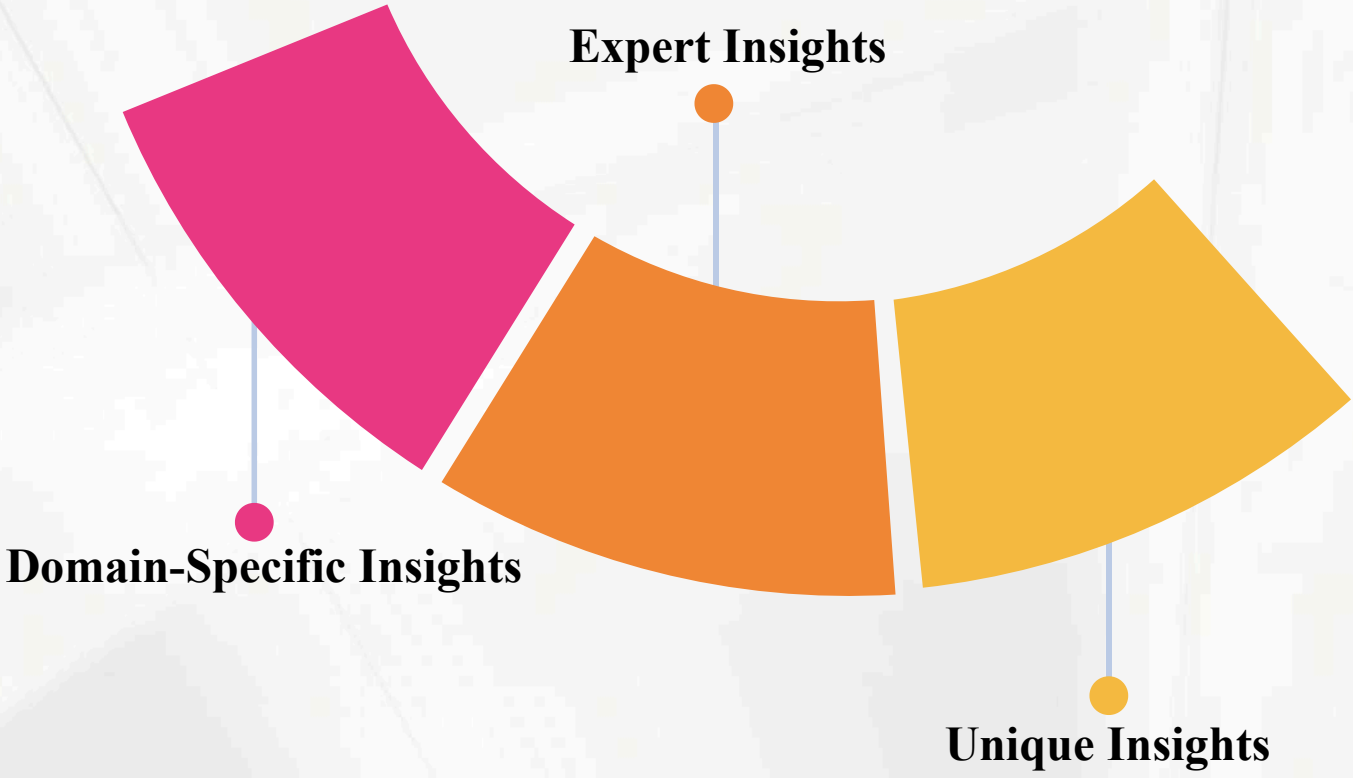
2025

EDITION 4

Setting a platform for innovations from climate startups to enable industrial decarbonization at scale

2. SECTIONS

This synthesis is organized into:



Each insight captures what was said on stage, why it matters in industrial settings, and how it affects deployment and adoption decisions.

Domain specific - This section presents insights organized by theme - Bio-Economy, Energy Efficiency & Digital Solutions, Deep Tech for Climate, and Academia–Industry Translation.

Expert - Each insight reflects first-hand experience, constraints encountered in real deployments, and the reasoning behind specific technology or business decisions.

Unique - Insights are framed as direct answers to practical questions, supported by speaker references and session context.

DOMAIN SPECIFIC INSIGHTS

A. Bioeconomy for Climate

B. Energy Efficiency & Digital Solutions

C. Deep Tech for Climate

D. Academia–Industry Translation for Decarbonization

2.1 DOMAIN-SPECIFIC INSIGHTS

A. BIO-ECONOMY FOR CLIMATE

A1. BIO-BASED CHEMICALS ARE PROCURED AS PROCESS OPTIMIZERS, NOT SUSTAINABILITY INPUTS

Expert: **Sivaram Pillai, Proklean Technologies**
Session: Fireside Chat on **Cracking the Green Chemicals Code with Mirik Gogri**

What was said

Sivaram Pillai (Proklean Technologies) explained that in heavy industrial environments - power plants, cement units, refineries, steel mills, and large water-intensive facilities - chemical procurement decisions are driven almost entirely by process stability and operating cost reduction. Bio-based or green chemicals enter consideration only when they can demonstrate clear improvements in parameters such as:

- **Reduced chemical dosage per unit of output**
- **Lower blowdown rates in cooling and boiler systems**
- **Reduction in scale, fouling, or corrosion incidents**
- **Improved heat-transfer efficiency**
- **Lower water consumption or wastewater load**

In practice, sustainability metrics such as carbon reduction, toxicity reduction, or biodegradability are evaluated after these operational benefits are proven at site level. According to Pillai, plant teams rarely approve trials framed primarily around “green” benefits; they approve trials framed around uptime, reliability, and cost avoidance.

Why this matters

This insight explains a persistent gap in the bio-economy startup ecosystem: many solutions demonstrate environmental superiority but fail to convert pilots into long-term contracts. The failure is not technical - it is commercial framing. Procurement authority for industrial chemicals typically sits with operations, utilities, or maintenance teams, not ESG or sustainability departments. These teams are evaluated on output stability, incident reduction, and operating cost—not emissions intensity.

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As a result, bio-based chemical startups that position themselves primarily as climate solutions often fail to clear internal procurement gates, even when their chemistry is effective. Conversely, solutions positioned as process optimizers often get adopted first, with sustainability benefits later documented for ESG reporting.

Industry implication

For corporates, this highlights that bio-economy adoption does not require ideological buy-in - only operational proof. For startups, it implies that commercial success depends on reframing value propositions around plant economics and reliability, treating carbon reduction as a secondary but reportable outcome.

A2: BIO-BASED PLASTICS FACE DEPLOYMENT RESISTANCE UNLESS END-OF-LIFE PATHWAYS ALIGN WITH EXISTING WASTE SYSTEMS

Expert: **Sunder Balakrishnan, Natur-Tec**

Session: Fireside Chat on **Bio-based Plastics & Net Zero** with **Gayathri Reddy**

What was said

Sunder Balakrishnan (Natur-Tec) highlighted that large corporates - particularly in packaging, FMCG, and industrial consumables - remain cautious about deploying bio-based or compostable plastics because of unresolved end-of-life execution risk.
While material performance at the product level is often adequate, uncertainty arises once the material exits the factory or consumer environment.

He noted several recurring concerns raised by corporate buyers:

- **Compostable plastics frequently enter conventional recycling streams, contaminating recyclate quality**
- **Municipal waste systems often lack segregation or industrial composting capacity**
- **Waste contractors are not trained or incentivized to handle bio-plastics differently**
- **Mismanaged disposal can expose brands to compliance and reputational risk**

As a result, even well-performing bio-plastics are often rejected if disposal outcomes cannot be controlled or verified.

Why this matters

This insight reframes the challenge of bio-plastics from a materials science problem to a systems integration problem. Corporates operate within fixed waste management contracts, EPR obligations, and audit frameworks. Introducing a new material that disrupts these systems - without guaranteed downstream handling - creates risk rather than value.

From a procurement standpoint, uncertainty in waste fate is treated as operational and compliance risk, which outweighs potential carbon or brand benefits. This is particularly acute for large manufacturers who face regulatory scrutiny and third-party audits.

Industry implications

Bio-based plastics gain traction only when suppliers take responsibility beyond material supply - by integrating with waste processors, enabling traceable disposal pathways, or embedding within existing EPR and municipal systems. Corporates are far more willing to adopt when end-of-life is engineered, not assumed.

A3: BIO-ECONOMY STARTUPS SCALE FASTER BY SOLVING INDUSTRIAL RISK AND RELIABILITY BEFORE SELLING CLIMATE BENEFITS

Expert: **Suhas Baxi, Biofuel Circle**

Session: Fireside Chat on **Building a sustainable biomass supply chain with Sameer Mehta**

What was said

Suhas Baxi of Biofuel Circle explained that the primary bottleneck in building a sustainable biomass ecosystem was not farmer participation but industrial adoption.

Farmers readily adopted Biofuel Circle's digital platform because it offered a direct, monetizable alternative to biomass burning. In contrast, industrial customers were initially skeptical, not due to doubts about sustainability, but due to concerns around fuel reliability, quality consistency, and supply continuity.

Baxi noted that industrial buyers only committed once Biofuel Circle proved:

- **Consistent calorific value and moisture control**
- **Reliable aggregation and delivery at industrial scale**
- **Cost parity or advantage versus fossil fuels**

Climate and ESG benefits became relevant only after operational confidence was established.

Why this matters

This insight exposes a structural reality in the bio-economy: demand-side risk aversion outweighs supply-side inertia. Industrial energy and procurement teams are accountable for uptime, fuel predictability, and cost control - not emissions narratives. Startups that lead with climate intent without first de-risking operations struggle to move beyond pilots.

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Industry implications

For bio-economy startups, this underscores the need to design offerings that behave like industrial infrastructure, not sustainability experiments. Commercial success depends on embedding into existing operational decision frameworks and proving performance under real-world constraints.

A4: BATCH CONSISTENCY MATTERS MORE THAN BIO-ORIGIN IN INDUSTRIAL PROCUREMENT

Expert: **Sivaram Pillai, Proklean Technologies**
Session: Fireside Chat on **Cracking the Green Chemicals Code with Mirik Gogri**

What was said

During discussions around green chemicals and bio-based materials, speakers repeatedly emphasized that industrial buyers apply the same quality thresholds to bio-based inputs as they do to fossil-based incumbents.

Even marginal batch-to-batch variation was cited as a deal-breaker due to downstream risks such as:

- **Process instability**
- **Re-qualification costs**
- **Fouling, corrosion, or yield loss**
- **Warranty or liability exposure**

Sustainability benefits were acknowledged only after technical equivalence and consistency were proven over repeated production cycles.

Why this matters

This insight explains why many bio-based pilots fail despite promising lab results. Industrial plants are optimized for predictability, not experimentation. Any increase in variability is treated as operational risk, regardless of environmental upside.
For bio-economy startups, the challenge is not proving performance once - but proving repeatability at industrial cadence.

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Industry implications

Corporates will not compromise operational reliability for sustainability gains. Bio-based suppliers must invest early in process control, QA/QC systems, and supply-chain discipline to match incumbent performance norms before expecting scale.

A5: FEEDSTOCK LOGISTICS DOMINATE BIO-ECONOMY ECONOMICS MORE THAN CONVERSION EFFICIENCY

What was said

Multiple founders acknowledged that real-world bio-economy economics are driven less by conversion yield and more by upstream realities such as:

- **Feedstock aggregation and segregation**
- **Contamination levels**
- **Transport distance and density**
- **Pre-processing and storage costs**

Several impact startups noted that even high-yield processes struggled commercially when feedstock quality or volume fluctuated due to weak collection systems.

Why this matters

This reframes a common misconception in bio-economy scaling: improving reactor efficiency alone does not unlock viability. Logistics variability erodes margins, disrupts output quality, and increases downtime—often overwhelming gains achieved through chemistry or process optimization.

Industry implications

Corporates evaluating bio-economy partnerships focus heavily on feedstock reliability and logistics design, not just technology performance. Solutions that control or integrate feedstock flows are structurally more scalable than those dependent on fragmented collection networks.

A6: CLIMATE MATERIALS ONLY SCALE WHEN INVESTORS TREAT THEM AS SYSTEMS BETS, NOT PRODUCT SWAPS

Expert: **Gayathri Reddy, NOW Venture Studio**
Session: Fireside Chat on **Bio-based Plastics & Net Zero with Sunder Balakrishnan**

What was said

Gayathri Reddy of Now Ventures framed the bioplastics discussion by grounding it in a hard truth: plastics themselves are not the enemy. She acknowledged that conventional plastics have been profoundly transformative across industries due to their durability, versatility, and cost efficiency. The climate problem, she emphasized, emerges from how plastics are used and disposed, particularly in short-life, disposable applications.

Gayathri positioned bioplastics not as a silver-bullet replacement, but as one tool within a broader transition to net zero, asking whether they can realistically address the environmental burden created by today's plastic economy.

Her line of questioning consistently pushed toward systems thinking—highlighting that material innovation must be evaluated across supply chains, waste infrastructure, regulation, and consumer behavior, rather than in isolation.

Why this matters

This insight explains why many climate-material startups struggle to attract patient capital or scale beyond niche pilots. Investors who view bioplastics as a drop-in moral alternative to plastics often underestimate the structural complexity involved. Gayathri's framing makes clear that climate solutions succeed only when capital is aligned with system-level change, not just product-level innovation.

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Industry implications

For founders, this signals that fundraising and scaling require articulating how their solution fits into real-world economic and regulatory systems, not just environmental narratives. For investors, it reinforces the need to act as co-builders of ecosystems, supporting policy alignment, infrastructure readiness, and market education alongside capital deployment.

A7: CORPORATES EXPECT BIO-ECONOMY SUPPLIERS TO ASSUME PERFORMANCE ACCOUNTABILITY, NOT JUST MATERIAL DELIVERY

Expert: **Sivaram Pillai, Proklean Technologies**
Session: Fireside Chat on **Cracking the Green Chemicals Code with Mirik Gogri**

What was said

Bio-economy founders shared that industrial customers increasingly expect performance-linked commitments - such as guaranteed reduction in chemical dosage, waste volume, or downtime - rather than simple material substitution.This mirrors broader shifts toward outcome-based contracting across industrial decarbonization.

Why this matters

This marks a structural change in procurement expectations. Bio-economy adoption now depends on suppliers' willingness to absorb technical risk and demonstrate confidence in real-world performance.

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Industry implications

For corporates, this reduces downside risk. For startups, it raises the bar: scaling now requires balance-sheet strength, operational maturity, and the ability to underwrite performance - not just innovative chemistry.

B. Energy Efficiency & Digital Solutions

B1: ENERGY EFFICIENCY IS PROCURED AS A FINANCIAL PRODUCT, NOT AS EQUIPMENT

Expert: **Ajit Shah, Yantra Harvest**
Session: Fireside Chat on **Energy Efficiency as a Service – Status & Trends with Narsi**

What was said

Ajit Shah (Yantra Harvest) explained that industrial buyers no longer evaluate energy efficiency solutions as standalone equipment upgrades. Instead, they assess them as financial instruments with defined risk, return, and performance guarantees. Projects without contractual assurance of savings struggle to move beyond pilot stages.

He emphasized that procurement teams increasingly prefer shared-savings or fixed-fee models where the provider assumes performance risk.

Why this matters

This insight explains why technically sound efficiency technologies fail to scale. Industrial decision-making is driven by balance-sheet logic, not engineering novelty. Efficiency solutions that resemble CAPEX-heavy retrofits face resistance unless they are structured as outcome-linked services.

Industry implications

For corporates, efficiency adoption improves when risk is transferred to solution providers. For startups, commercial success depends less on technical sophistication and more on structuring outcome-linked contracts that align with financial approval processes.

B2: AI-LED EFFICIENCY FAILS WHEN INTRODUCED BEFORE OPERATIONAL BASELINES ARE ESTABLISHED

Expert: **Hemalatha Dave, Technip Energies**
Session: Fireside Chat on **Digital & AI for Energy Efficiency with Shelly Mittal**

What was said

Hemalatha Dave (Technip Energies) noted that AI and advanced analytics are often introduced prematurely, before plants have reliable baselines for energy, throughput, and losses. Without stabilized operations data, AI outputs remain advisory and are rarely acted upon by plant teams.
She emphasized sequencing: **instrumentation → baseline → control logic → AI.**

Why this matters

This challenges the assumption that AI is a shortcut to efficiency. In practice, digital tools add value only after operational fundamentals are in place. Startups pitching AI-first solutions risk rejection if they cannot demonstrate readiness for plant-level integration.

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Industry implications

Corporates should prioritize data quality and process stability before adopting AI tools. Startups must assess plant readiness honestly and position AI as a later-stage layer, not a shortcut to efficiency.

B3: INDUSTRIAL COOLING IS TRANSITIONING FROM OWNERSHIP TO UPTIME-LINKED SERVICE DELIVERY

Expert : **Madhusudhan Rapole, Oorja Energy**

Session: Fireside Chat **Cooling as a Service – Startup Journey with Satya Bansal**

What was said

Madhusudhan Rapole (Oorja Energy) described how industrial cooling customers increasingly avoid owning thermal assets. Cooling-as-a-Service models shift responsibility for efficiency, maintenance, and performance to the provider, aligning incentives around uptime and lifecycle efficiency rather than equipment sales.

He highlighted that clients prioritize predictable thermal performance over asset control.

Why this matters

Cooling is a major energy load in data centers, manufacturing, and commercial buildings. Service-based models unlock efficiency gains that traditional equipment sales cannot, because providers are rewarded for minimizing energy use over time.

WATCH VIDEO

Industry implications

Corporates reduce operational risk by outsourcing performance accountability. Startups gain adoption by aligning incentives around uptime and lifecycle efficiency, though this requires stronger operational capability and balance-sheet support.

B4: CIRCULAR HEAT RECOVERY SUCCEEDS ONLY WHEN LINKED TO A CORE PROCESS LOOP

Expert: Ashwin KP, Promethean Energy
Session: Fireside Chat – From Emissions to Efficiency with Siddharth Mehta

What was said

Ashwin KP (Promethean Energy) explained that waste heat recovery projects succeed only when recovered heat directly replaces fossil fuel use within the same process loop—such as boiler feedwater preheating or process steam generation.

Projects that require exporting heat or converting it to electricity introduce operational uncertainty and are rarely approved.

Why this matters

This explains why many waste heat startups stall after pilots. Industrial buyers favor solutions that reduce fuel bills without altering process logic.

Industry implications

For solution providers, success depends on embedding heat recovery within existing utility systems. Sustainability framing alone does not unlock approval without clear fuel substitution.

B5: INDUSTRIAL BUYERS REJECT EFFICIENCY TOOLS THAT BYPASS EXISTING CONTROL SYSTEMS

Session: I3 – **Industry Investor Insights (Energy Efficiency)**
Experts: **Sanjay Kumar (Orbi2aNext), Anandnambi G (Technip Energies), Arul Shanmugasundaram (Swelect Energy)**

What was said

During the I3 session, industry representatives emphasized that efficiency tools must integrate with **SCADA** and **DCS** systems already in use. Standalone dashboards or external decision layers are viewed as operational risks.

Operators resist tools that disrupt established workflows, regardless of savings potential.

Why this matters

This explains why technically sound digital efficiency solutions fail during enterprise rollout. Integration effort often exceeds perceived benefit.

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Industry implications

Digital solution providers must design for seamless integration into existing control environments. Corporates favor tools that work within established systems rather than replacing them.

B6: MEASUREMENT CREDIBILITY DETERMINES WHETHER EFFICIENCY SAVINGS ARE TRUSTED

Session: I3 – **Industry Investor Insights (Energy Efficiency)**
Experts: **Sanjay Kumar (Orbi2aNext), Anandnambi G (Technip Energies), Arul Shanmugasundaram (Swelect Energy)**

What was said

Investors and industry panelists stressed that efficiency claims are scrutinized heavily unless supported by transparent, auditable measurement and verification (M&V). Savings estimates based on modeled assumptions face skepticism, particularly in regulated or mission-critical operations.

Why this matters

Without credible M&V, efficiency projects struggle to secure contracts or financing. This pushes startups toward hardware-backed measurement or continuous monitoring rather than black-box analytics.

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Industry implications

Corporates require auditable data to justify decisions. Startups must invest in measurement infrastructure and verification capability, not just analytics.

B7: DATA OWNERSHIP CONCERNS SLOW ENTERPRISE DIGITAL ADOPTION

Session: I3 – Industry Investor Insights (Energy Efficiency)
Experts: Sanjay Kumar (Orbi2aNext), Anandnambi G (Technip Energies), Arul Shanmugasundaram (Swelect Energy)

What was said

Corporates expressed reluctance to share granular operational data with third-party platforms, especially cloud-based analytics providers. Data governance, cybersecurity, and IP concerns often delay or block deployments.

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Why this matters

Digital efficiency startups must design architectures that respect data sovereignty, including on-premise processing and restricted data access.

B8: ENERGY EFFICIENCY INVESTMENTS COMPETE INTERNALLY WITH PRODUCTIVITY CAPEX

Session: I3 – Industry Investor Insights (Energy Efficiency)
Experts: Sanjay Kumar (Orbi2aNext), Anandnambi G (Technip Energies), Arul Shanmugasundaram (Swelect Energy)

What was said

Industry speakers acknowledged that efficiency projects compete with expansion and productivity investments for capital approval. Even attractive paybacks lose priority if they do not directly increase output or reduce downtime.

Why this matters

This clarifies why efficiency adoption is uneven. Solutions that link energy savings to throughput or reliability stand a higher chance of approval.

C. Deep Tech for Climate

C1: ENGINEERING-LED CORPORATES ENGAGE ONLY AFTER CONCEPT RISK IS REMOVED - NOT AT LAB STAGE

Expert: **Janani Mittal, Technip Energies**
Session: **Fireside Chat on Deep-tech Innovations for Clean Energy Transition with Satya Seshadri**

What was said

Janani Mittal (Technip Energies) clarified that large engineering and EPC firms do not engage with technologies at early scientific or lab-validation stages. Their entry point is post-concept validation, where:

- **Technology performance boundaries are already understood**
- **Integration risks can be engineered out early**
- **Cost and scale assumptions are explicit**

Technip evaluates technologies through deployability, not novelty.

Why this matters

This explains why startups misinterpret lack of corporate engagement as disinterest. The real issue is stage mismatch, not rejection.

Strategic implications

Engineering firms are accountable for delivering plants that run for decades. Early-stage science introduces uncertainty that cannot be absorbed within EPC risk frameworks. As a result, many promising technologies fail to find engineering partners - not because they are ineffective, but because they are too early.

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Deep-tech startups must de-risk integration, materials, and cost assumptions before approaching EPCs. Waiting for EPC-led validation at TRL 2–3 is structurally unrealistic.

C2: CCUS IN INDIA DEPENDS ON UTILIZATION PATHWAYS, NOT GEOLOGICAL STORAGE

Expert: **Janani Mittal, Technip Energies**
Session: Fireside Chat on **Deep-tech Innovations for Clean Energy Transition with Satya Seshadri**

What was said

Janani Mittal emphasized that India lacks economically viable, large-scale geological CO_2 sequestration options. As a result, CCUS viability depends on carbon utilization, such as:

- **Chemicals**
- **Construction materials**
- **Fuels and intermediates**
- **Pure storage-driven CCUS models face structural barriers.**

Why this matters

This reframes CCUS in India from a sequestration problem to a materials and markets problem.

Strategic implications

Industries cannot justify CCUS investments without revenue or cost offsets. Utilization pathways create monetizable outputs, whereas storage-only solutions add cost without return.

CCUS startups targeting India must design for CO_2 as feedstock, not waste. Storage-first models are unlikely to scale without heavy policy intervention.

C3: EMBODIED CARBON REDUCTION IN BUILDING MATERIALS IS DEPLOYABLE TODAY - BUT BLOCKED BY PROCUREMENT NORMS

Expert: **Shailee Goswami, Saint-Gobain R&D**
Session: Fireside Chat on **Decarbonizing Building Materials with Narsi**

What was said

Shailee Goswami (Saint-Gobain R&D) demonstrated that materials such as AAC blocks, optimized glazing, and alternative binders can significantly reduce embodied and operational carbon simultaneously.

However, adoption is constrained by:

- **Absence of India-specific LCA benchmarks**
- **Conservative procurement specifications**
- **Lack of carbon-linked material standards**

Why this matters

This shows that material innovation is ahead of procurement frameworks, not engineering capability.

Strategic implications

Even when lower-carbon materials are technically superior, project consultants default to legacy specifications to avoid perceived risk.

Decarbonizing construction requires updating codes, standards, and tender norms, not just inventing new materials.

WATCH VIDEO

C4: SCRAP-BASED STEEL DELIVERS IMMEDIATE DECARBONIZATION WITHOUT HYDROGEN DEPENDENCE

Expert: **Sumit Bhatia (via Aishwarya), ARS Steel**
Session: Fireside Chat on **Decarbonizing Steel through Use of Steel Scrap with Narsi**

What was said

Sumit Bhatia (ARS Steel) demonstrated that high-scrap electric steelmaking powered by renewables already achieves sub-600 kg CO_2/ton, without hydrogen-based DRI.

Key enablers included:

- **98% premium scrap usage**
- **Electric induction furnaces**
- **Long-term renewable PPAs**
- **Heat-level CO_2 tracking**

WATCH VIDEO

Why this matters

This reframes steel decarbonization as a deployment challenge, not a technology waiting game.

Strategic implications

Near-term steel decarbonization should prioritize scrap systems, grid decarbonization, and transparency - while hydrogen remains a long-term pathway.

Hydrogen steel remains capital-intensive and long-dated. Scrap-based EAF steel is available now, scalable, and auditable.

C5: RETROFIT IS NOT A "TEMPORARY FIX" - IT IS THE ONLY SCALABLE PATH FOR HEAVY ENGINES

Expert: **Alok Kumar, Saarthi GreenTech**
Session: **Impact Startup Pitch**

What was said

Alok Kumar (Saarthi GreenTech) stated that ~98% of heavy-duty engines will still operate on diesel by 2035. Full electrification or hydrogen replacement is infeasible due to cost, infrastructure, and fleet turnover constraints.

Saarthi's solution:

- **Generates hydrogen onboard (no storage)**
- **Improves combustion efficiency**
- **Reduces emissions without engine replacement**

WATCH VIDEO

Why this matters

This reframes retrofit technologies as bridging infrastructure, not compromise solutions.

Strategic implications

Policy and capital should treat retrofits as legitimate decarbonization pathways, not temporary deviations from "pure" solutions.

Operators cannot retire assets early. Retrofit solutions fit within existing maintenance and fuel systems.

C6: LONG-DURATION ENERGY STORAGE ECONOMICS FAVOR HYDROGEN BEYOND 72 HOURS

Expert: **David DeVries, Protonas**
Session: **Impact Startup Pitch**

What was said

David DeVries (Protonas) explained that batteries become cost- and space-prohibitive beyond 4–72 hours of storage. Hydrogen fuel cells become economically viable beyond this duration, particularly for:

- **Telecom towers**
- **Data centers**
- **Critical backup infrastructure**

Why this matters

This clarifies where hydrogen competes, instead of framing it as a universal replacement.

WATCH VIDEO

Industry implications

Short-duration storage is dominated by batteries. Long-duration reliability needs push buyers toward hydrogen despite higher complexity.

Hydrogen startups should target duration-specific use cases, not blanket energy storage markets.

D. Academia–Industry Translation for Decarbonization

D1: LESS THAN 1% OF INDIAN ACADEMIC RESEARCH REACHES COMMERCIAL DEPLOYMENT

Expert: **Raghuttama Rao, GDC IIT Madras**
Session: **Translating Academic Climate Research into Industry Implementation**

What was said

Raghuttama Rao (GDC, IIT Madras) explicitly stated that <1% of academic research in India is commercialized, despite the country having:

- **Over 260 incubators**
- **Multiple government grant programs**
- **Increasing availability of early-stage venture capital**

Why this matters

This statistic reframes the problem: India does not suffer from lack of research or institutions, but from an inability to move validated research into deployable industrial solutions. For climate-tech, this is particularly damaging because hardware-heavy solutions cannot iterate purely in labs.

WATCH VIDEO

Industry implications

Corporates and institutions must invest in translational pathways,
not just early research or late-stage startups.

D2: THE STRUCTURAL FUNDING GAP EXISTS BETWEEN TRL 3 AND TRL 6

Expert: **Raghuttama Rao, GDC IIT Madras**
Session: **Translating Academic Climate Research into Industry Implementation**

What was said

Rao explained that:

- **Public and university funding typically ends at TRL 2–3**
- **Commercial capital enters only at TRL 6–7**, when revenue visibility exists

The intermediate stages - where prototypes must be:

- **Engineered for reliability**
- **Tested under real-world conditions**
- **Adapted to industrial workflows**

remain structurally unfunded.

Why this matters

Most climate technologies fail not because they don't work, but because they never receive capital to survive this middle phase. This is particularly acute for energy, materials, and process technologies.

Industry implications

Bridging mechanisms are essential to move technologies from lab to factory.

D3: PHILANTHROPIC CAPITAL AVOIDS FAILURE - WHICH MAKES IT INEFFECTIVE FOR INNOVATION

Expert : **Mirik Gogri, Spectrum Impact**
Session: **Translating Academic Climate Research into Industry Implementation**

What was said

WATCH VIDEO

Mirik Gogri (Spectrum Impact) stated that most philanthropic capital demands predictable outcomes, clean milestones and short reporting cycles. However, innovation - especially deep-tech - requires:

- **Funding failed experiments**
- **Supporting intermediate infrastructure**
- **Allowing non-linear progress**

He emphasized that failure is not fundable under most current philanthropic models.

Why this matters

This explains why early-stage translational research stalls even when money appears abundant. Without failure-tolerant capital, researchers avoid ambitious problems and incrementalism dominates.

D4: INDIA OVERFUNDS EQUIPMENT BUT UNDERFUNDS TRANSLATIONAL HUMAN CAPITAL

Expert: **Mirik Gogri, Spectrum Impact**
Session: **Translating Academic Climate Research into Industry Implementation**

What was said

Gogri highlighted that funding agencies readily finance:

- **Laboratories**
- **Testing equipment**
- **Infrastructure**

But rarely fund:

- **Translational engineers**
- **Entrepreneurial researchers**
- **Personnel who move technologies from lab to factory**

He described this as **"funding machines, not the people who make them useful."**

Why this matters

Without people who understand both research and industry constraints, infrastructure remains underutilized and commercialization slows - especially in industrial decarbonization where systems integration is critical.

WATCH VIDEO

INSIGHT D5: POLICY CERTAINTY IS A PRECONDITION FOR INDUSTRY ADOPTION - NOT CAPITAL AVAILABILITY

Expert : **Ajeya Bandyopadhyay, IFC**
Session: **Translating Academic Climate Research into Industry Implementation**

What was said

Ajeya Bandyopadhyay (IFC) stated that industries delay adoption of technologies such as:

- **CCUS**
- **Green hydrogen**
- **Industrial electrification**

not due to lack of capital, but due to absence of long-term policy signals.

He emphasized that capital alone does not de-risk first-of-a-kind deployments without regulatory clarity.

Why this matters

This insight connects research translation directly to policy. Even proven technologies stall when industries cannot forecast regulatory or market conditions over asset lifetimes.

WATCH VIDEO


EXPERT
INSIGHTS
GAYATHRI REDDY

3. Expert Insights

1. TRANSLATIONAL RESEARCH FAILS WHEN ACADEMIA OPTIMIZES FOR PAPERS, NOT DEPLOYMENT

Satya Seshadri is an Associate Professor at IIT Madras, working at the intersection of applied mechanics, clean energy systems and translational research. He is closely involved in academic innovation, pre-incubation, and industry engagement, giving him direct exposure to the structural gap between laboratory research and real-world industrial deployment.

Speaker: Satya Seshadri, Energy Consortium- IITM

Session: Translational Academic Climate Research into Industry

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Seshadri explained that a major reason climate and energy innovations fail to scale is the disconnect between academic success metrics and industrial adoption requirements. Universities are optimized for publications, proof-of-concept demonstrations, and isolated performance metrics, while industry evaluates technologies based on reliability, manufacturability, safety, cost, and integration with existing systems.

He emphasized that industrial relevance emerges only when researchers engage early with operators, manufacturers, and asset owners, rather than treating industry as a downstream commercialization step. Without early feedback on feasibility constraints, regulatory pathways, and operational realities, even technically superior solutions struggle to move beyond the lab.

2. WASTE HEAT PROJECTS FAIL WHEN POSITIONED SOLELY AS SUSTAINABILITY SOLUTIONS

Ashwin KP is a co-founder of Promethean Energy, a company focused on industrial waste heat recovery solutions for manufacturing plants across sectors such as food processing, chemicals, textiles, and pharmaceuticals. With an engineering background and direct experience working with plant utilities and thermal systems, Ashwin has been closely involved in the design, deployment, and operation of waste heat recovery systems in live industrial environments. His work spans both technical system design and on-ground implementation, giving him first-hand visibility into how industrial plants evaluate, adopt, or reject decarbonization technologies based on operational risk, cost structures, and reliability expectations.

Speaker: Ashwin KP, Promethean Energy

Session: Startup Journey – From Emissions to Efficiency

WATCH VIDEO

Drawing from Promethean Energy's early deployments, Ashwin explained that waste heat recovery projects consistently struggled when positioned primarily as sustainability or emissions-reduction initiatives. While plant teams acknowledged the environmental value, they were unwilling to allocate budget or operational attention to projects that did not directly replace an existing utility or fuel cost. Adoption improved only when waste heat recovery was framed as a functional substitute for diesel-, LPG-, or electricity-based heating systems already embedded in plant operations.

He noted that industrial buyers do not create new budget lines for "waste heat." Instead, approvals are driven by whether a solution can displace an existing, familiar cost center with predictable performance. Projects gained traction when recovered heat was integrated directly into core process loops - such as boiler feedwater preheating, hot water generation, or process steam - where savings were immediate, measurable, and aligned with existing operating logic.

3. GREEN CHEMICALS ARE ADOPTED ONLY WHEN THEY FIRST SOLVE OPERATIONAL PAIN POINTS

Dr. Sivaram Pillai is a co-founder and the Director of R&D at Proklean Technologies, a Chennai-based cleantech company that develops bio-based, biodegradable alternatives to conventional industrial chemicals. He holds a PhD in Biochemistry and has over three decades of experience in research, business development, and leadership roles in the chemical and biotechnology sectors. Before ProKlean, he spent a significant part of his career in industry leadership, including executive roles such as at EID Parry, and later helped establish Proklean (around 2009–2012) to scale environmentally safer industrial solutions.

Speaker: Sivaram Pillai, Proklean Technologies

Session: Startup Journey – Cracking the green chemicals code

WATCH VIDEO

Speaking at CLIMAFIX Summit 2025, explained that Proklean's bio-based chemicals gained acceptance only when positioned as solutions to operational challenges such as fouling, corrosion, excessive chemical consumption, or water inefficiency. Trials framed around biodegradability or carbon reduction were routinely deprioritized by plant teams.

He clarified that procurement authority typically sits with utilities and maintenance teams whose performance metrics are uptime, reliability, and cost control. Sustainability benefits are assessed only after operational performance is demonstrated. This explains why many green chemistry solutions fail to convert pilots into long-term contracts despite strong environmental credentials.

4. BIOENERGY ADDRESSES THE MAJORITY OF EMISSIONS THAT ELECTRIFICATION CANNOT REACH

Colonel Monish Ahuja is the Co-founder of PRESPL, a company focused on building large-scale biomass supply chains that convert agricultural residues into usable industrial fuels. A retired Indian Army officer, he has spent over a decade working at the intersection of rural aggregation, fuel logistics, and industrial energy substitution. His work involves deep engagement with both farmers and industrial utilities teams, giving him direct visibility into how thermal energy decisions are made inside factories and how alternative fuels are evaluated against coal, furnace oil, and gas.

Speaker: Colonel Monish Ahuja, PRESPL

Session: I3- Investor Insights – Bio-economy for climate

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Monish explained that electricity accounts for only about 20–22% of India's total energy consumption, while the bulk of emissions arise from fossil fuels used for industrial heat and thermal processes. He argued that climate strategies overly centered on electrification overlook this reality, particularly in sectors where high-temperature heat, continuous steam, and fuel flexibility are essential. In these applications, electrification is either technically constrained, prohibitively expensive, or unlikely to scale fast enough to meet near-term decarbonization targets.

He emphasized that bioenergy succeeds when treated as a direct fuel substitute, not as an abstract sustainability intervention. Agricultural residues already contain carbon captured through photosynthesis and can be burned in industrial boilers with minimal system changes, enabling immediate displacement of fossil fuels. However, industries adopt biomass only when it behaves like a conventional fuel - consistent quality, predictable calorific value, assured supply, and competitive pricing.

5. OCEAN BIOMASS REMOVES THE LAND CONSTRAINT FROM BIOENERGY SCALE-UP

Shrikumar Suryanarayan is the Founder and CEO of Sea6 Energy, a deep-tech company pioneering large-scale seaweed cultivation and ocean biomass platforms. With a background in engineering and entrepreneurship, he has spent over a decade building technologies for offshore seaweed farming, biomass harvesting, and downstream processing. His work focuses on unlocking biomass at scale without relying on arable land, freshwater, or food crops - constraints that limit most terrestrial bioenergy pathways.

Speaker: Shrikumar Suryanarayan, Sea6 Energy

Session: I3- Investor Insights – Bio-economy for climate

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Shrikumar explained that ocean-based biomass fundamentally removes the land constraint from bioenergy scale-up. Large-scale seaweed farming allows biomass production in the open ocean, avoiding competition with agriculture, deforestation risks, or land-use trade-offs that often constrain terrestrial bioenergy. He emphasized that this makes ocean biomass one of the few pathways capable of scaling to climate-relevant volumes without triggering secondary sustainability concerns.

He further explained that Sea6 Energy made a deliberate choice to enter higher-value markets such as agricultural inputs before moving into lower-margin applications like bioplastics and fuels. Early revenues from these markets were used to drive process optimization, automation, and cost reduction in cultivation and harvesting. This sequencing enabled the company to build scale while maintaining economic viability, ensuring that ocean biomass could eventually compete in large-volume applications without relying on subsidies or premature fuel mandates.

6. DIGITAL TWINS ARE USED TO AVOID FAILURE, NOT CHASE MARGINAL GAINS

Janani Mittal works at the intersection of industrial engineering, digital systems, and large-scale energy infrastructure, with hands-on experience deploying digital twins in complex, asset-heavy environments. Her work involves close collaboration with plant operators, maintenance teams, and engineering leadership, giving her direct exposure to how digital tools are evaluated inside organizations where uptime, safety, and reliability are non-negotiable.

Speaker: Janani Mittal, Technip Energies

Session: Expert talk – Digital & AI for Energy Efficiency

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Janani explained that within engineering-led organizations, digital twins are primarily deployed to anticipate failure modes, stress conditions, and maintenance risks, rather than to extract marginal efficiency improvements. In large-scale energy and industrial systems, their real value lies in understanding how assets behave under off-design conditions, scale-up stress, transient operations, or prolonged runtime, scenarios where physical testing is either impossible or prohibitively expensive.

She clarified that from an operator's perspective, preventing a single unplanned shutdown delivers orders of magnitude more value than achieving a 1–2% efficiency gain. As a result, digital twin deployments framed around optimization or incremental performance improvements struggle to secure internal buy-in unless they clearly demonstrate risk mitigation, reliability improvement, or asset protection. This framing explains why digital solutions succeed in engineering environments only when positioned as tools for failure avoidance and operational assurance, not as instruments for marginal performance enhancement.

7. HYDROGEN INFRASTRUCTURE WILL SCALE ONLY WHEN ANCHORED TO INDUSTRIAL OFFTAKERS, NOT MOBILITY

Shaji John has spent over two decades working across India's energy and industrial ecosystem, with deep exposure to hydrogen, renewables, and large-scale infrastructure development. His experience spans engagement with refineries, fertilizer producers, steel plants, and chemical manufacturers, giving him first-hand insight into how hydrogen demand is evaluated, contracted, and financed in real industrial settings.

Speaker: Shaji John, Ohmium

Session: Startup Journey – Energy Efficiency & Digital Solutions

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Shaji explained that hydrogen infrastructure in India is unlikely to scale through mobility-first use cases such as fuel-cell vehicles or speculative transport demand. While these applications attract attention, they do not provide the demand certainty required to justify capital-intensive hydrogen investments. Instead, early deployment must be anchored to industrial offtakers where hydrogen is already a critical input and demand is continuous, measurable, and operationally essential.

He clarified that hydrogen projects fail when they are built around assumed future demand rather than committed offtake. Industrial users offer predictable load profiles and long-term consumption visibility, which are necessary to finance electrolyzers, balance-of-plant systems, and long-duration renewable power contracts. Without such bankable demand anchors, hydrogen infrastructure risks becoming stranded - regardless of technological readiness, cost curves, or policy ambition.

8. CARBON MARKET TOOLS FAIL WHEN THEY INTERRUPT PLANT OPERATIONS

Abhimanyu Rathi is the Founder of RenewCred, a company working at the intersection of carbon markets, digital MRV, and industrial decarbonization. His work involves close engagement with carbon project developers and operating industrial plants, giving him direct exposure to how emissions accounting tools interact with real production environments and why many technically sound solutions fail at the deployment stage.

Speaker: Abhimanyu Rathi, RenewCred

Session: Impact Pitches – Energy Efficiency & Digital Solutions

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Rathi explained that carbon market and digital MRV tools often fail not because of weak methodology or lack of climate relevance, but because they interfere with day-to-day plant operations. Platforms are quickly abandoned when emissions measurement requires changes to core processes, additional manual data entry by operators, or any form of operational disruption. Even minor friction becomes unacceptable in environments optimized for continuous production.

He clarified that industrial plants tolerate sustainability reporting only when it is passive, automated, and non-intrusive. Production teams prioritize throughput, safety, and reliability, and any system that competes with these priorities - regardless of technical sophistication or reporting accuracy - is rejected. This explains why MRV solutions that integrate seamlessly with existing data streams gain adoption, while those that require behavioral change, procedural adjustments, or operator intervention struggle to scale in industrial environments.

9. INDUSTRIAL COOLING DECISIONS ARE DRIVEN BY DOWNTIME RISK, NOT ENERGY COST ALONE

Satyanarayanan Bansal has worked across industrial energy, infrastructure, and climate-focused investments, advising companies and asset owners on technologies deployed in mission-critical operating environments. His experience spans evaluation of cooling, thermal management, and efficiency solutions across sectors where reliability and asset longevity directly determine operational and financial performance.

Speaker: Satya Bansal, Blue Ashva Capital

Session: Startup Journey – Energy Efficiency & Digital Solutions

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Bansal explained that industrial cooling solutions gain adoption not primarily because they save energy, but because they reduce the risk of unplanned downtime and long-term asset degradation. Energy efficiency improvements alone are rarely sufficient to drive purchasing decisions in systems that are essential to continuous plant operation.

He further noted that cooling failures have immediate consequences for plant availability, product quality, and equipment lifespan, making reliability-linked economics far more persuasive at both the board and plant-management level. Avoided shutdowns, extended asset life, and reduced maintenance interventions create value that far outweighs marginal energy savings. As a result, cooling technologies positioned around uptime assurance and asset protection are far more likely to secure approval than those framed purely around efficiency gains.

10. CORPORATE INNOVATION TEAMS ARE NOT DEPLOYMENT TEAMS - AND CONFUSING THEM KILLS SCALE

Anandnambi G has worked extensively at the intersection of corporate innovation, digital transformation, and large-scale infrastructure organizations. His experience includes engaging with startups, internal innovation units, and core operating businesses, giving him clear visibility into how ideas move - or fail to move - from pilots to deployment inside complex enterprises.

Speaker: Anandnambi G, Technip Energies

Session: Startup Journey – Energy Efficiency & Digital Solutions

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Anandnambi explained that startups often misinterpret engagement with corporate innovation or digital teams as a direct pathway to large-scale deployment. In practice, these teams are designed to explore ideas, run limited pilots, and test concepts - not to own capital deployment, operational risk, or balance-sheet decisions. As a result, many startups stall after technically successful pilots because the engagement never transitions to the business units that control assets, budgets, and execution.

He clarified that true scale occurs only when solutions are aligned early with core operating units- such as project execution, asset management, or plant operations—where accountability for performance, safety, and risk resides. Without this alignment, pilots remain isolated demonstrations rather than steps toward commercialization, leading to what he described as “innovation theater.” For startups, understanding where real decision-making power sits inside large organizations is critical to converting pilots into sustained deployments.

11. ELECTROLYZER COST REDUCTION IS DRIVEN BY MANUFACTURING SCALE, NOT BREAKTHROUGH CHEMISTRY

Shaji John has spent over two decades working across India's energy and industrial ecosystem, with deep exposure to hydrogen, renewables, and large-scale infrastructure development. His experience spans engagement with refineries, fertilizer producers, steel plants, and chemical manufacturers, giving him first-hand insight into how hydrogen demand is evaluated, contracted, and financed in real industrial settings.

Speaker: Shaji John, Ohmium

Session: Startup Journey – Energy Efficiency & Digital Solutions

WATCH VIDEO

Speaking at CLIMAFIX Summit 2025, explained that near-term cost reductions in electrolyzers are being driven primarily by manufacturing scale, supply-chain localization, and system standardization rather than by waiting for next-generation materials or breakthrough chemistry. He emphasized that current electrolyzer technologies are already technically viable, and the dominant cost levers now lie in how fast they can be produced, assembled, and deployed at volume.

He further clarified that framing hydrogen economics as a laboratory science problem delays real progress. Cost curves are already bending due to volume manufacturing, improved balance-of-plant integration, and learning effects across supply chains. Companies and policymakers that wait for "better technology" risk missing the current cost-down trajectory driven by industrial-scale production, while those that invest early in manufacturing capacity position themselves to benefit from compounding scale advantages.

12. EFFICIENCY PROJECTS STALL WHEN STARTUPS IGNORE WHO OWNS THE PAIN INTERNALLY

Shelly Mittal has worked closely with large enterprises and early-stage companies on efficiency, energy, and operational improvement initiatives, giving her a clear view into how adoption decisions unfold inside complex organizations. Her experience spans engagement with sustainability teams, finance functions, and plant operations, highlighting the internal frictions that often block otherwise viable solutions.

Speaker: Shelly Mittal, Chrysalix Ventures

Session: Expert Talk – Digital & AI for Energy Efficiency

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Shelly explained that many efficiency-focused startups fail to scale because they underestimate how fragmented ownership is within large enterprises. Energy costs, emissions targets, capital expenditure, and operational reliability are often owned by different teams, each with distinct incentives and approval authority. Even technically sound efficiency solutions can stall when no single stakeholder feels accountable for adoption or empowered to move the project forward.

She emphasized that startups frequently demonstrate measurable savings yet fail to progress beyond pilots because they cannot clearly identify who actually feels the pain the solution addresses. Without a clear pain owner - someone who benefits directly from deployment and also controls budget or influence - projects lose momentum and internal sponsorship fades. Successful efficiency startups, she noted, are those that map internal decision-making early and align their value proposition tightly to the stakeholder who experiences the problem most acutely.

13. AI PROJECTS FAIL IN INDUSTRY BECAUSE THEY ARE SOLD TO THE WRONG BUYER

Hemalatha Dave has worked across industrial digitalization, AI deployment, and operational transformation initiatives, engaging closely with both corporate innovation functions and on-ground plant teams. Her experience gives her direct visibility into why technically strong AI solutions often fail to translate into sustained industrial adoption.

Speaker: Hemalatha Dave, Technip Energies

Session: Expert Talk – Digital & AI for Energy Efficiency

WATCH VIDEO

Speaking at CLIMAFIX Summit 2025, explained that a large proportion of digital and AI pilots in industrial settings fail not due to model performance, but because they are sold to innovation, digital, or transformation teams rather than to plant operations and maintenance leadership. While innovation teams may sponsor pilots, they rarely own day-to-day operational decisions, asset risk, or deployment authority, causing promising AI initiatives to stall after initial demonstrations.

She emphasized that industrial adoption depends on whether AI tools integrate seamlessly into existing operating procedures and performance metrics such as uptime, throughput, yield, and maintenance planning. Even highly accurate models fail to gain traction if they require changes to workflows or operate outside established decision-making systems. Plants operationalize AI only when it directly supports the KPIs operators are already accountable for, reinforcing that buyer alignment - not algorithmic sophistication - is the dominant determinant of success.

14. INDUSTRIAL DECARBONIZATION FAILS WHEN SOLUTIONS IGNORE PLANT RELIABILITY CONTRACTS

Pawan Mehndiratta is an industrial infrastructure and energy-sector professional with deep experience across power generation and large industrial assets, where plant performance is governed by long-term reliability, uptime, and performance-guarantee contracts. He has worked closely with industrial plant owners, OEMs, EPC contractors, and service providers, advising on technology adoption in environments where contractual liability, asset risk, and operational accountability are tightly defined.

Speaker: Pawan Mehndiratta, Thermax

Session: I3 – Investor insights - Deep tech for Climate

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Mehndiratta explained that many industrial decarbonization solutions fail to gain adoption not because of weak emissions performance, but because they overlook the contractual reality under which industrial plants operate. Large plants function within long-term reliability, uptime, and performance-guarantee frameworks, often involving multiple parties legally bound to deliver specific outcomes over extended operating periods. Any new decarbonization technology that introduces even marginal uncertainty into this structure is therefore perceived as a contractual risk.

He emphasized that industrial customers evaluate new technologies primarily through the lens of failure responsibility rather than environmental benefit. Questions around who bears liability if performance degrades, who pays for repairs, and who is accountable during off-design or stress conditions dominate procurement discussions. If these issues are not clearly resolved, plants are unwilling to absorb the risk regardless of climate impact. As a result, decarbonization solutions that are not engineered to fit within existing contractual and liability structures face rejection, even when they offer meaningful emissions reductions.

15. POLICY ADVOCACY MUST BE GROUNDED IN INDUSTRIAL FEASIBILITY, NOT ASPIRATIONAL TARGETS

Ashish Sethi works at the intersection of climate policy, industrial decarbonization, and private-sector engagement, with experience advising companies and stakeholders on how regulatory frameworks translate into on-ground adoption. His work involves close interaction with industrial operators, investors, and policymakers, giving him visibility into how policy intent is interpreted—and often distorted—once it reaches operating assets.

Speaker: Ashish Sethi, TriGen Decarbonization

Session: I3 – Investor insights - Deep tech for Climate

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Sethi emphasized that policy frameworks fail when they mandate outcomes without accounting for industrial feasibility, cost structures, and asset lifecycles. He argued that effective climate policy must emerge from sustained dialogue with industry operators who understand plant constraints, deployment timelines, and capital recovery realities, rather than being driven solely by emissions targets, global benchmarks, or headline ambitions.

He stressed that misaligned policies often slow adoption by creating uncertainty rather than accelerating transition. Policy certainty enables investment only when it aligns with operational reality and provides clear, executable pathways for compliance. Aspirational mandates without feasibility roadmaps, he noted, delay decarbonization by forcing industry into wait-and-watch mode instead of enabling confident capital deployment.

16. YOUNG CLIMATE-TECH TALENT UNDERESTIMATES INDUSTRIAL DECISION TIMELINES

Aastha Paliwal works closely with early-career climate professionals, founders, and organizations navigating the transition from ideas to industrial deployment. Her experience spans engagement with startups, corporates, and ecosystem builders, giving her a grounded view of how expectations around speed often collide with the realities of industrial decision-making.

Speaker: Aastha Paliwal

Session: I3 – Investor insights - Deep tech for Climate

WATCH VIDEO

Speaking at the CLIMAFIX Summit 2025, Paliwal highlighted that early-career climate professionals and founders frequently underestimate how long industrial adoption actually takes, even when intent is strong. Procurement cycles, internal approvals, safety and compliance reviews, pilot evaluations, and contract negotiations often stretch across multiple quarters - and sometimes years - before deployment decisions are finalized.

She noted that this mismatch between startup expectations and industrial timelines leads to founder frustration, premature pivots, and capital mismanagement. Teams often misread slow progress as rejection rather than process. Understanding industrial time horizons, she emphasized, is critical for startup survival: speed in climate-tech is constrained far more by institutional processes and risk governance than by founder ambition or execution effort.

UNIQUE
INSIGHTS

4. Unique Insights from CLIMAFIX 2025

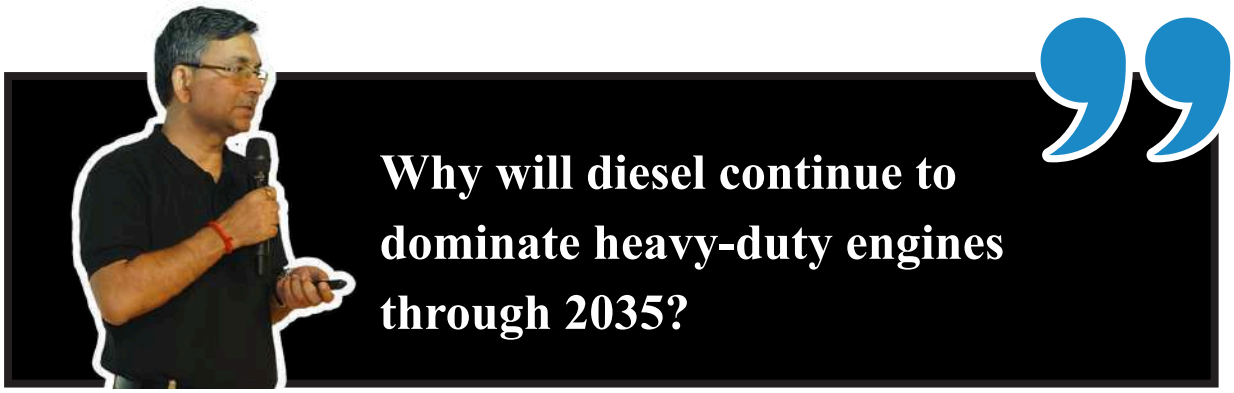
1.

Aishwarya Subburaman, ARS Steel

During the industry showcase on decarbonizing steel, ARS Steel shared that it has achieved **592 kg CO_2** per ton of finished steel, verified through a third-party Environmental Product Declaration (EPD).

This emission intensity is approximately four times lower than the Indian industry average of **~2550 kg CO_2/ton** and three times lower than the global average of **~1850 kg CO_2/ton**. The result was presented as a function of high recycled scrap usage, electric induction furnaces, and increasing renewable electricity procurement.

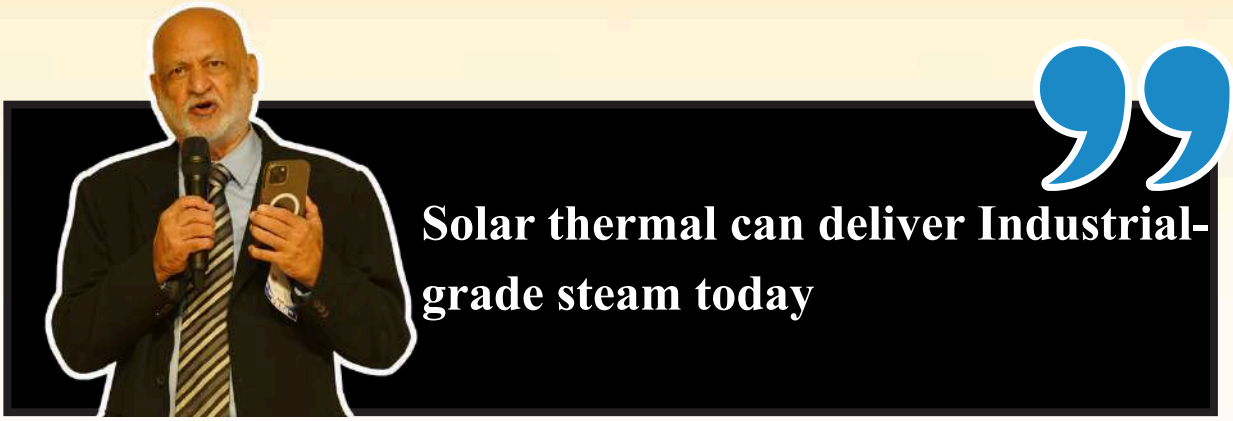
2..



Alok Kumar, Saarthi GreenTech

It was highlighted by Alok Kumar of Saarthi GreenTech that nearly 98% of heavy-duty engines globally are expected to continue operating on diesel through 2035. The discussion pointed to structural constraints rather than technological inertia - high replacement costs, limited availability of charging or hydrogen infrastructure, and the practical difficulty of replacing existing fleets at scale all reinforce diesel's persistence in heavy-duty applications.

This framing repositioned retrofit-based decarbonization approaches as a necessary transitional pathway rather than a stopgap solution. By improving the emissions profile of existing diesel engines, retrofit solutions address the reality that fleet turnover cycles are long and capital-intensive. The insight underscores that near-term emissions reduction in heavy-duty transport is more likely to come from upgrading what already exists than from wholesale replacement with new powertrains.

3. 

Deepak Gadhia, Sunrise CSP

In the same session, Sunrise CSP presented operational data showing that concentrated solar thermal systems can deliver steam at temperatures of 630°C and pressures of 160 bar. The output was shown to be usable for industrial steam generation, electricity production via turbines, and absorption-based cooling systems, positioning solar thermal as a multi-output industrial energy source rather than a niche application.

4. 

David DeVries, Protonas

Protonas explained that battery-based backup systems become economically and spatially impractical beyond 4 to 72 hours of storage, depending on redundancy and application. Beyond this window, hydrogen fuel-cell systems become more viable due to linear storage scalability and the absence of degradation over time. This insight positioned hydrogen as a duration-specific solution, particularly suited for telecom towers, data centers, and critical infrastructure requiring extended backup rather than short-term balancing.

5.

Why does conventional recycling fail economically for LFP batteries?

Sriharini Senthilkumar, Li-Circle

Li-Circle explained that LFP batteries lack high-value metals such as nickel and cobalt, which underpin the economics of traditional hydrometallurgical recycling. As EV markets shift toward LFP chemistries, these processes become cost-inefficient. Li-Circle stated that its direct recycling approach reduces processing costs by approximately 27% by skipping salt conversion and directly regenerating battery-grade cathode material, while also reducing water and chemical usage.

6.

Is battery manufacturing complexity a design legacy rather than a technical necessity?

Apoorv Shaligram, e-TRNL Energy

e-TRNL Energy presented a redesigned battery manufacturing process that reduces production from 32 conventional steps to just 8, enabled through a new three-dimensional cell architecture and compact, custom-built machinery. The company argued that much of today's manufacturing complexity is inherited from legacy formats rather than dictated by electrochemistry, positioning modular manufacturing as a lower-capex pathway to scale.

7.

Rajendra Nath Goswami, Bosch

Bosch stated that AI-based energy optimization consistently underperforms in industrial settings when high-resolution sensor data and reliable operational baselines are absent. Algorithmic sophistication alone was described as insufficient; without dense instrumentation and stable data streams, AI outputs remain advisory and are not trusted by operations teams. This insight reframed AI deployment as a data and systems readiness problem, not a modeling challenge.

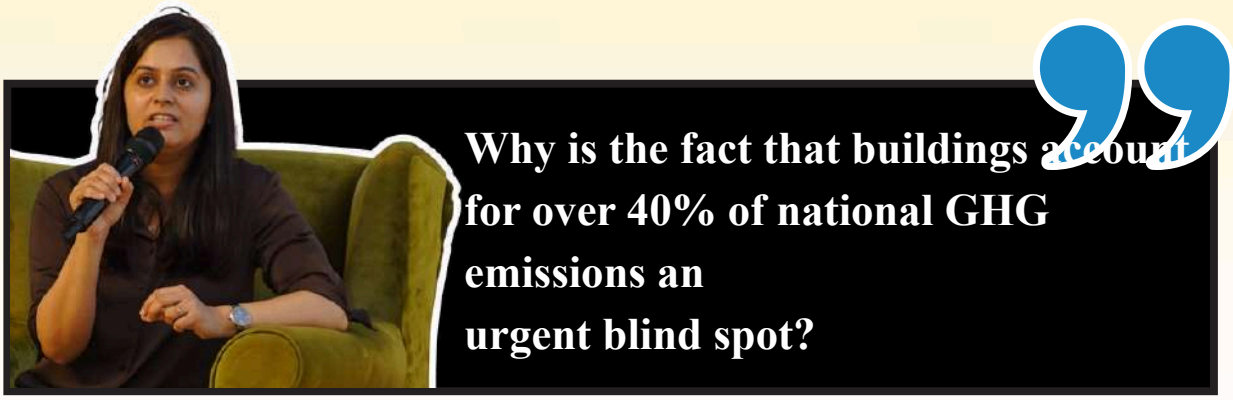
3.

Sunder Balakrishnan, Natur-Tec

Natur-Tec explained that compostable plastics are frequently rejected by municipal waste handlers because inconsistent segregation creates a high risk of contaminating existing recycling streams. Sunder Balakrishnan noted that in real-world waste systems, compostable plastics often enter conventional plastic recycling due to visual similarity, lack of consumer awareness, and inadequate segregation infrastructure. Faced with contamination penalties and quality risks, waste processors adopt a defensive approach - rejecting all “look-alike” plastics rather than selectively accepting compostables.

This creates a structural paradox: materials that are technically superior and certified for compostability fail at scale because waste systems are designed around risk avoidance, not material differentiation. The insight underscores that successful deployment of bio-based plastics depends less on certification and more on alignment with human sorting behavior, contractor incentives, and downstream waste economics.

9.



Shailee Goswami, Saint-Gobain R & D

It was highlighted by Shailee Goswami during the Industry Showcase | Decarbonizing Building Materials at CLIMAFIX Summit 2025 that buildings account for over 40% of national greenhouse gas emissions when construction materials, operational energy use, and lifecycle impacts are considered together. Despite this scale, these emissions are often distributed across multiple sectors - cement, steel, construction, and power—resulting in fragmented ownership and delayed action.

This framing positions the built environment as a central decarbonization challenge rather than a secondary outcome of industrial activity. Because buildings lock in material and energy choices for decades, delayed intervention compounds emissions over time. The insight underscores that early decisions on materials, design efficiency, and construction practices are critical to avoiding long-term carbon lock-in.

10.

Shrikumar Suryanarayan, Sea6 Energy

It was highlighted by Shrikumar Suryanarayan during CLIMAFIX Summit 2025 that mechanized ocean sea farms, exemplified by C6 Energy's 1 km² pilot, demonstrate that large-scale biomass cultivation at sea is operationally feasible. Unlike traditional seaweed farming, which is often artisanal and limited in scale, mechanized platforms enable systemic planting, maintenance, and harvesting across expansive marine areas, signaling a pathway toward industrial biomass supply without competing for arable land.

This insight reframes marine biomass from a conceptual research topic to an emerging infrastructure opportunity. By proving that ocean-based biomass can be grown, managed, and harvested at scale, mechanized sea farms potentially unlock a new category of feedstock for low-carbon materials, bioenergy, and bioproducts. It suggests that the decarbonization potential of biomass need not be constrained by land-use trade-offs and that ocean-based agricultural systems could play a meaningful role in meeting future bio-based demand.

11. **Why can a small change in mounting design save ~2 tonnes of steel per MW?**

Sanjay Kumar , Orbi2aNext

It was highlighted by Sanjay Kumar of Orbi2aNext during the Industry Investor Insights on Energy Efficiency & Digital/AI session at CLIMAFIX Summit 2025 that modest adjustments in solar module mounting design - specifically small sacrifices in tilt and generation assumptions - can materially reduce steel usage. By rebalancing electrical optimization with structural and financial considerations, his team demonstrated a reduction of approximately 2 tonnes of steel per megawatt.

He explained that while the change appears minor at the project level, its impact compounds at portfolio scale. For multi-gigawatt renewable deployments, this translates into tens of thousands of tonnes of steel avoided, along with corresponding reductions in energy use, coal consumption, logistics, and embedded emissions across the steel value chain. The insight underscores how disciplined engineering trade-offs, rather than new technology, can unlock significant decarbonization gains when applied systematically.

12.

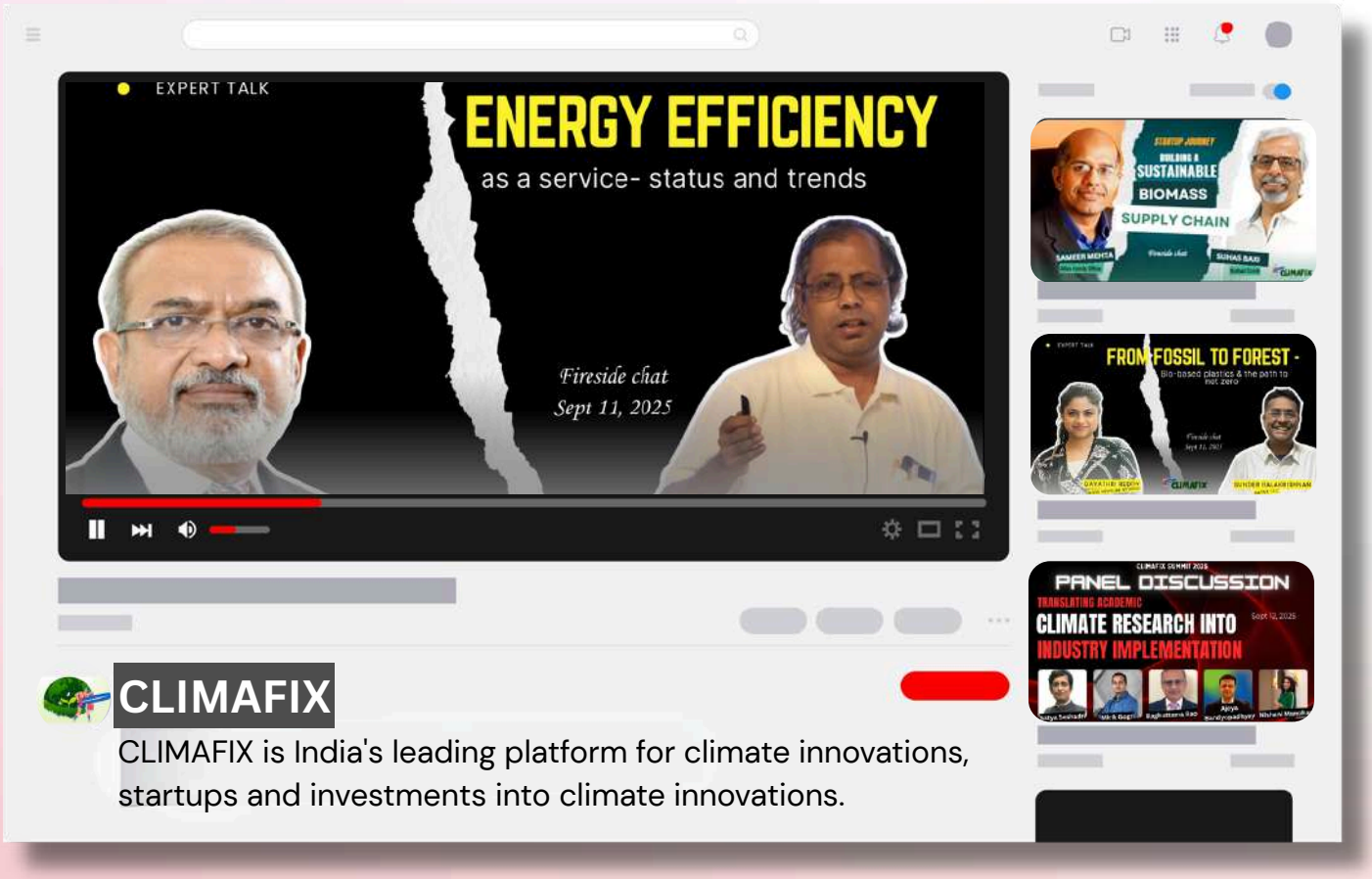
Why does energy waste remain marginalized in climate discourse despite its emissions impact?

Ashish Sethi, TriGen Decarbonization

It was highlighted by Ashish Sethi of TriGen Decarbonization during the Industry Investor Insights on Deep Tech for Climate session at CLIMAFIX Summit 2025 that while plastic waste contributes roughly 2% to the climate problem, wasted energy accounts for close to 40% of global warming impact. Despite this disparity, public attention, funding, and policy narratives disproportionately focus on visible waste streams rather than systemic energy inefficiency.

He emphasized that energy efficiency interventions - particularly retrofits - are often overlooked because they lack visibility and narrative appeal. Retrofits do not generate headlines in the way new renewable installations or novel technologies do, even though they address a far larger emissions source. The insight reframes energy efficiency as a scale problem rather than a technology problem, suggesting that climate outcomes are constrained less by innovation gaps and more by what society chooses to prioritize and celebrate.

CLIMAFIX
Session Videos



300+ CLIMATE TECH VIDEOS

curated climate-tech session videos featuring expert talks, startup journeys, investor insights, and innovation discussions across bioeconomy, energy efficiency, deep tech, and emerging climate solutions.

CLIMAFIX Summit 2025 Session Videos

BIO-ECONOMY FOR CLIMATE

Session Title	Speakers	Link
Building a Sustainable Biomass Supply Chain | **Startup Journey**	Suhas Baxi - Biofuel Circle with Sameer Mehta, Atlas Family Office	Watch on YouTube
Cracking the Green Chemicals Code | **Startup Journey**	Sivaram Pillai, Proklean Technologies With Mirik Gogri, Spectrum Impact	Watch on YouTube
From fossil to forest - Bio-based plastics & the path to Net Zero | **Expert Talk**	Sunder Balakrishnan, Natur Tec With Gayathri Reddy, NOW Ventures	Watch on YouTube
Investing in climate, an international perspective | **Expert Talk**	Johnny Kahlbetzer, Twynam Investments With Satya Seshadri, IIT Madras	Watch on YouTube
I3 - Industry Investor Insights	**Moderator**: Toine van Megen, Auroville Consulting **Industry experts** ● Shrikumar Suryanarayanan, Sea6 Energy ● Col Monish Ahuja, PRESPL ● Narasimhan Santhanam, EAI	Watch on YouTube
Special Mentions	• Archana Stalin - myHarvestFarms • Kern Agrawal - Carbon Loops • Subramanian M, GDC IITM • Balachandar R, Startup Singam • Shweta Dalmmia, Bharat Climate • Desika Prabhakar, DPurpose • Shashank Jasrapuria, Unusual Venture Studio	Watch on YouTube

CLIMAFIX Summit 2025 Session Videos

BIO-ECONOMY FOR CLIMATE

Session Title	Speakers	Link
IMPACT PITCHES - Bio-economy startup pitches from 7 curated high-impact startups	**Jury** - ● Karthik Chandrasekar, Sangam Venture ● Chandran Krishnan, Campus Angels ● Sweta Shah, Silver Compass ● Chirag Gupta, 8X Ventures ● Vishal Gandhi, BIORx Venture Advisors **High Impact Startups** - • Revathi Ravishankar - RangBio • Ajinkya Dhariya - PadCare • Devi Ramamoorthy - THAALCHEMY • JSP Enviro Private Limited - Fidal Kumar • FREXA - Dheeraj Jain	Watch on YouTube

CLIMAFIX Summit 2025 Session Videos

ENERGY EFFICIENCY & DIGITAL/AI

Session Title	Speakers	Link
Digital & AI 4 Energy Efficiency | **Expert Talk**	Hemalatha Dave, Technip Energies with Shelly Mittal, Chrysalix Ventures	Watch on YouTube
From emissions to efficiency: The circular path to decarbonization | **Startup Journey**	Ashwin KP, Promethean Energy with Siddharth Mehta, SE Ventures	Watch on YouTube
Cooling as a service: Transforming thermal efficiency through innovations | **Startup Journey**	Madhusudhan Rapole, Oorja Energy with Satyanarayanan Bansal, Blue Ashva Capital	Watch on YouTube
Energy efficiency as a service-status and trends | **Expert Talk**	Ajit Shah, Yantra Harvest with Narasimhan Santhanam, EAI	Watch on YouTube
I3 - Industry Investor Insights	**Moderator:** Tina Philip - Accenture **Industry experts** : ● Sanjay Kumar - Orbi2aNext ● Anandnambi G - Technip Energies ● Arun Nair - Startup Singam ● Arul Shanmugasundaram Swelect Energy ● Anson Sando, IITMRP	Watch on YouTube

CLIMAFIX Summit 2025 Session Videos

ENERGY EFFICIENCY & DIGITAL/AI

Session Title	Speakers	Link
IMPACT PITCHES - Energy efficiency and digitization startup pitches from 7 curated high-impact startups	**Jury -** ● Mayuresh Raut, Seafund ● Aswani Chaitanya Capital A ● Rohit Jhunjhunwala - In44 Capital ● Alexander Hogeveen Rutter - Third Derivative ● Vinod Shankar - Java Capital **High Impact Startups -** • Sudarsan M S - Albatross Energetics • Raghu Raman S - RC Labs • Abhimanyu Rathi - RenewCred • Ansha N - Zerowatt • Ravish Rawal - Cedar	Watch on YouTube

CLIMAFIX Summit 2025 Session Videos

DEEP TECH FOR CLIMATE

Session Title	Speakers	Link
AI 4 Energy Storage & Smart Grid | **Expert Talk**	Rajendra Nath Goswami, Bosch with Narasimhan Santhanam, EAI	Watch on YouTube
Synergies to accelerate Hydrogen Infrastructure in India | **Startup Journey**	Shaji John, Ohmium with Vishesh Rajaram, Speciale Invest	Watch on YouTube
Deeptech innovations for clean energy transition | **Expert Talk**	Janani Mittal, Technip with Satya Seshadri, Energy Consortium, IITM	Watch on YouTube
I3 - Industry Investor Insights | **Panel Discussion**	**Moderator**: Kaustubh H - IndusDC **Industry experts** - ● Hardik Bhanushali - SCALE ● Tejas Rao, Saint Gobain ● Aastha Paliwal, Avaana Capital ● Pawan Mehndiratta, Thermax ● Ashish Sethi, TRIGeN Decarbonization	Watch on YouTube
Special Mentions	• Venkat Rajaraman, Cygni • Soundararajan GS, Alldelite • Vikash Chandra, BPL-FTA • Jacob Thekkekara, Sugrah Mobility • Dinesh Arjun, Raptee • Deepak Rajmohan, GreenPod Labs • Aravind Kumar Chandiran, IIT Madras • TS Giridharan, SSN iFound • Akshay Joshi, NSRCEL	Watch on YouTube

CLIMAFIX Summit 2025 Session Videos

DEEP TECH FOR CLIMATE

Session Title	Speakers	Link
Deep tech startup pitches from 7 curated high-impact startups	**Jury** • Roopan Aulakh, Pi Ventures • Vishal Katariya, Ankur Capital • Vasu Guruswamy, Lavni Ventures • Partha Talukder, NOW Venture Studio • Vasan Churchill, TDK Ventures **High Impact Startups -** • Apoorv Shaligram, e-TRNL Energy • Sri Harini Senthilkumar, Li-Circle • Parth Saxena, Protonas • Alok Kumar, Saarthi Green (SGT) • Deepak Gadhia, Sunrise CSP India Private Limited	Watch on YouTube
Decarbonizing building materials | **Expert Talk**	Shailee Goswami, Saint-Gobain R&D	Watch on YouTube
Decarbonizing steel through use of steel scrap | **Expert Talk**	Sumit Bhatia, ARS Steel	Watch on YouTube
Translating Academic Climate Research into Industry Implementation | **Panel Discussion**	**Moderator:** Satya Seshadri **Industry experts:** ● Mirik Gogri - Spectrum Impact ● Raghuttama Rao, GDC, IIT Madras ● Ajeya Bandyopadhyay, IFC ● Nishani Manohar, IITMAA	Watch on YouTube
Awards, Summary & Summit Conclusion	Impact pitches award ceremony	Watch on YouTube

Selected session videos from previous editions of CLIMAFIX Summit (2024, 2023, 2022)

Startup Investing for Climate Impact - Mirik Gogri & Mridula Ramesh at CLIMAFIX Summit 2024

Rise of India's Bioeconomy - Bioplastics, Bioenergy, Biochemicals at CLIMAFIX Summit 2024

How to Scale Early Stage Climate Startups - Satya Chakravarthy & Vishal Pandya at CLIMAFIX Summit 2024

IIT Madras Startup & Innovation Ecosystem - Indumathi Nambi & Prabhu Rajagopal at CLIMAFIX Summit 2024

Energy Efficiency 2.0 - Panel Discussion - Ajit Shah, Arjun Gupta & Jayant Prasad at CLIMAFIX Summit 2024

1% CO2 emissions reduction in 25 years, Will you call it IMPACT? Narasimhan Santhanam at CLIMAFIX Summit 2024

India Net Zero Innovation Framework & Toolkits - Satya Seshadri at CLIMAFIX Summit 2024

Selected session videos from previous editions of CLIMAFIX Summit (2024, 2023, 2022)

Accelerating Indian Climate Innovations & Startups | Government of India - AGNIi CLIMAFIX Summit 2023

India Energy Efficiency, Cooling, Energy Analytics Innovations, Startups CLIMAFIX Summit 2023

Li-ion Battery Startups in India - Second Life Batteries, for Scooters, Investors CLIMAFIX Summit 2023

Reimagining, Innovating, Leapfrogging for Climate Impact - Titanic Session CLIMAFIX Summit 2023

Building Energy Efficiency & Sustainable Cooling, Radiant Cooling - Oorja Energy Engineering at CLIMAFIX Summit 2023

India Li-ion, Sodium-ion Battery Storage, Thermal Energy Storage Startups & Innovations CLIMAFIX Summit 2023

Organic Dairy Startup - founded by a Software Professional - The Akshayakalpa Story - Shashi Kumar at CLIMAFIX Summit 2023 Insights Series

Precision Farming, Organic Farms, Low Carbon Meat - Startups & Innovations CLIMAFIX Summit 2023

Selected session videos from previous editions of CLIMAFIX Summit (2024, 2023, 2022)

Startups, Innovations in Industrial, Commercial Energy Efficiency, AC Efficiency CLIMAFIX Summit 2023

A marketing professional shifts to an organic dairy company - Vachana Shetty - Akshayakalpa at CLIMAFIX Summit 2023

How Startups Can Benefit from IIT Madras Innovation & R&D Incubation Infrastructure - Satya Seshadri & Satya Chakravarthy at CLIMAFIX Summit 2023

Low Carbon Mobility Online Panel Discussion CLIMAFIX Summit 2023 Insight Series

Low Carbon Materials Panel Discussion CLIMAFIX Summit 2023 Insights Series

Water Sustainability panel discussion CLIMAFIX Summit 2023 Insights Series

Sustainable Cooling - Emerging Solutions | Madhusudhan Rapole - Oorja Energy Engineering at CLIMAFIX Summit 2022

Energy Storage Panel Discussion @ CLIMAFIX Summit 2022


Awards &
Recognition

CLIMAFIX 2025

Awards & Recognition


(L-R) Akshay Joshi - Narasimhan Santhanam


T S Giridharan


Venkat Rajaraman


Dinesh Arjun


Jacob Thekkekara


G S SoundaraRajan


Aravind Kumar Chandiran


(L-R)
Ramesh Matham - Narasimhan Santhanam - Ajit Shah


P. S. Chandrasekhar


Deepak Rajmohan


Niladri Choudhuri

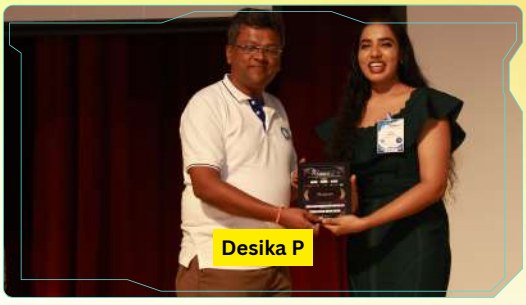

(L-R) Sanjay Kumar - Subramanian M


Shweta Dalmmia


Shashank Jasrapuria


Arun Nair


Chandrasekaran Jayaraman


Desika P


Ramesh Kumar Soni

CLIMAFIX 2025

Awards & Recognition


Kern Agrawal


Archana Stalin


(L-R) Narasimhan Santhanam - Rajnish Kumar


Priya Selvaraj


Arun Nagpal


Julian Thomas


Arun Natarajan


Ramesh Matham


(L-R)
Satya Seshadri - Ajinkya Dhariya - Reema Saha


Sudarshan M S


Apoorv Shaligram


Dheeraj Jain


Devi Ramamoorthy


Vishal Jayakumar


Abhimanyu Rathi


David DeVries

CLIMAFIX STARTUP ECOSYSTEM

List of startups that have presented or participated at CLIMAFIX across editions

CLIMAFIX Startup Ecosystem Snapshot

This section lists startups that have presented or participated at CLIMAFIX across editions. The list is provided in alphabetical order for reference.

Startup Name (A–Z)	What They Do	Website
280 Carbon Systems	The company develops technologies that convert captured CO_2 into value-added chemical products, especially ethylene, a key industrial feedstock.	**Website**
75F APAC	AI-enabled IoT building management and automation systems to optimize energy use, improve indoor air quality	**Website**
A-Bond Strands Composites	Designs and manufactures high-precision filament-wound composite structures (using glass or carbon fiber) for demanding applications like CNG/hydrogen storage	**Website**
Aaliv Nanotech pvt Ltd	Specializes in nanotechnology research with a focus on energy, water, and medicine.	**Website**
Aana Crop Solutions PLC	Focused on enhancing rice farming productivity and profitability by offering mechanized rice cultivation solutions, quality paddy seedlings, and value-chain support for growers.	**Website**
Aatral	Working on sodium-ion battery technology that is positioned as a sustainable alternative to traditional lithium-ion batteries	**Website**
Accalaim Tech	Consulting in the renewable energy space, specifically with regards to biomass gasifiers with technology and support from IISc, Bangalore	**Website**
Acres of ice	Designs and implements automated artificial ice reservoirs and water-management solutions to capture and store water in high-altitude	**Website**
Active buildings	ActiveBuildings aims to highlight the urgent need for clean indoor air	**Website**
AdiNal Engineering Pvt Ltd	Specializing in high-performance industrial products like alumina fiber, composite cylinders, and related solutions for aerospace, automotive, energy,	**Website**

CLIMAFIX Startup Ecosystem Snapshot

This section lists startups that have presented or participated at CLIMAFIX across editions. The list is provided in alphabetical order for reference.

Startup Name (A–Z)	What They Do	Website
AERO NERO	Uses patented air-to-water technology to generate clean, alkaline drinking water directly from the atmosphere	**Website**
Aerostrovilos	Building the World's 1st safest and most reliable Flexi Fuel Gas Turbine Engine for Power Generation and Heavy-Duty Mobility applications	**Website**
Agnikul Cosmos	Making space more accessible and cost-effective by developing small satellite launch vehicles.	**Website**
Akshayakalpa Farms and Food Pvt Ltd	Transforming rural livelihoods through organic farming	**Website**
Albatross Energetics	Develops energy-efficient air conditioning and thermal control systems (e.g., advanced liquid desiccant HVAC solutions)	**Website**
Alexis Bioenergy	Indian biomass energy producer, manufacture eco logs (briquettes and pellets) from agricultural residue	**Website**
Algrow Bio India Private Limited	Creating better ingredients, for a more sustainable and nutritious food system. Made with microalgae.	**Website**
ALL MATTR	Helps businesses source and compare eco-friendly materials and products with verified sustainability data	**Website**
Almericus	Almericus offers blue carbon solutions that protect ecosystems while unlocking carbon credits.	**Website**
Alphios Finergy Private Limited	Aims to revolutionize the production of Green Hydrogen through their innovative technology called Anion Exchange Membrane	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
Altigreen	Bengaluru based manufacturer of electric 3 wheeler.	**Website**
Ambiator	Develops eco-friendly cooling systems designed as an energy-efficient alternative to conventional air conditioners	**Website**
AmplePac	They produce 100% Reusable FMCG Packaging	**Website**
Aquaconnect	Aquaculture technology platform, pioneering the use of AI and satellite remote sensing	**Website**
AquaWelder HyEnergy Pvt Ltd	Focused on replacing traditional fossil-fuel-based industrial heating, welding, brazing, and related processes with hydrogen-based solutions	**Website**
AR Energy (AREG) Private Limited	Manufactures refined glycerine, biodiesel and other renewable fuel products from sustainable feedstocks while also providing related processing and supply solutions	**Website**
Ariviya Deep Tech Pvt. Ltd	Focused on developing eco-friendly, polymer-based health and hygiene products	**Website**
Arka BRENStech Pvt Ltd	Provides end-to-end biogas and bio-CNG solutions — from biomass assessment and	**Website**
Arola Bamboo Products	Indian sustainable manufacturing brand that creates and sells handcrafted eco-friendly bamboo products	**Website**
ArSta eco	Converts agricultural residue and biomass into carbon-negative products using advanced pyrolysis technology	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
Arthro Biotech Pvt Ltd	Arthro Biotech harness the capabilities of Black Soldier Fly to produce sustainable ingredients for the Animal Feed and Biotech Industry	**Website**
ASMI Innovations	ASMI Innovations creates water purification systems that recycle RO waste, integrating IoT-based real-time monitoring	**Website**
Aspalli green sustainable ecosysterm pvt ltd	Technology designed to help germinate seeds and regenerate forests by restoring ecosystems and reducing pollution.	**Website**
Aspiration Energy	Develops and delivers industrial-scale solar thermal systems, high-efficiency heat pumps, waste-heat recovery and related clean heating solutions	**Website**
Ather Energy	Designs and manufactures smart electric scooters and charging infrastructure	**Website**
ATSUYA Technologies	Uses AI and IoT to deliver integrated monitoring and analytics platforms helping businesses optimise energy, water, HVAC, refrigeration, and operational performance	**Website**
Austhraa Motors Pvt Ltd	E-bikes manufacturing company	**Website**
Aventose Energy	Developing rugged, indigenously designed electric two- and three-wheelers to accelerate EV adoptions.	**Website**
Avris Environment Technologies LLP	A sustainable and patented alternative for organisations aiming for zero-waste operations through decentralised in-situ food waste treatment.	**Website**
Axitec Energy India Pvt. Ltd.	Supplies high-efficiency photovoltaic (PV) modules and smart solar solutions in India	**Website**

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Startup Name (A–Z)	What They Do	Website
BA Prerna CleanEarth Private Limited	Converts mixed waste into solid recovered fuel, bio-char, and organic fertilizers for industrial and agricultural use	**Website**
Bacuti	SaaS platform for sustainability reporting, helping companies calculate, analyze, and report their carbon emissions	**Website**
Bakz4ever	Develops direct air carbon capture and long-duration energy storage technologies for low-carbon grids.	**Website**
Bambrew	Develops eco-friendly, biodegradable, plastic-free packaging solutions made from plant-based materials like bamboo fiber, seaweed, agro-waste and recycled paper	**Website**
BattWheelz Mobility Solutions Pvt Ltd	Offers battery swapping and electric mobility infrastructure for last-mile logistics.	**Website**
BATX Energies	India's largest lithium-ion battery recycling and sustainable battery materials company	**Website**
Bhaskara Engineering Services Pvt Ltd	Engineering firm offering design, consultancy and project execution services in renewables, energy efficiency and infrastructure solutions	**Website**
BiniWorld Innovations Pvt Ltd	Develops biodegradable packaging and compostable material solutions for FMCG and retail.	**Website**
Biofics pvt ltd	Provides innovative solutions to convert organic waste into valuable resources like clean energy (biogas/Bio-CNG) and compost through advanced technologies and equipment.	**Website**
Biofuel Cricle	Produces and supplies sustainable biofuels and biomass-based energy products	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
Biosky	Biosky drives precision and efficiency in renewable energy and infrastructure with advanced space-based intelligence.	**Website**
BitChem Asphalt Technologies Limited	Manufactures cold-mix eco-friendly asphalt for road construction with lower emissions.	**Website**
BlackRhino	Mission is to revolutionize the enterprise ecosystem by introducing digitization and automation tools.	**Website**
Blaer Motors	Builds high-performance electric motorcycles with lightweight aero-efficient designs.	**Website**
Blue Yonder	Helps retailers, manufacturers, and logistics providers optimize planning, inventory, delivery, and returns to create more efficient and resilient supply chains	**Website**
Bolt.Earth	EV tech company that operates one of the largest smart electric-vehicle charging networks in India	**Website**
Boon	Operates IoT-enabled water purification and refill stations to replace packaged drinking water	**Website**
Bridge Green Upcycle Pvt Ltd	Pioneering lithium-ion battery upcycling with digital and material technologies for sustainable energy transition.	**Website**
Bridgeway Power	Manufactures and distributes EV charging equipment and power electronics for mobility.	**Website**
Bridge Carbon	Provides carbon accounting, emissions tracking, and ESG reporting software for enterprises	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
Building printalytix	Uses 3D printing and digital fabrication to reduce construction waste and improve build efficiency	**Website**
Buyofuel	B2B online marketplace for biofuels and organic waste feedstocks, connecting waste generators, raw material suppliers, biofuel manufacturers and fuel consumers through a digital platform	**Website**
BVersity	BVersity is committed to revolutionizing the learning and education sector through innovative virtual reality (VR) training platforms	**Website**
C-BEEV	Promote path-breaking research and development in the burgeoning field of electric mobility in India	**Website**
Canfan Private Limited	Designs and manufactures advanced BLDC fans and air circulation solutions that cut electricity use by up to ~55 % compared to conventional fans	**Website**
Carbon Compete	Carbon Compete aims for decarbonization with AI-driven Saas for end-to-end supply chain transparency	**Website**
Carbon Loops	Provides waste-to-energy solutions by converting organic waste into CNG, electricity, and cooking gas, driving zero-waste and circular economy goals.	**Website**
Carbon Masters	Helps organisations reduce, measure and report their carbon emissions and turns organic waste into clean energy	**Website**
Carbon Minus	Provides turnkey rooftop solar, distributed renewable power, carbon offset, and financing solutions	**Website**
Carbon strong	Focused on decarbonizing the built environment, particularly concrete and cement	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
CarbonCraft	Upcycles carbon emissions and industrial/urban waste into carbon-negative building materials such as tiles, bricks, and panels	**Website**
Cashcrow	Offers circular economy-based rewards and financing incentives linked to reuse and recycling behavior.	**Website**
Cedar	Works on integrating digital systems with energy efficiency measures for industrial and commercial clients.	**Website**
Cercle X	Their platform integrates blockchain-based tracking, real-time bidding for scraps, extended producer responsibility (EPR) compliance, and a marketplace for waste trading	**Website**
CGSGreen Sustainergy Pvt. Ltd.	Energy Audit, Harmonics, Energy Management Plan, PAT E-Certs Trading, Green Building Rating Assistance etc	**Website**
Chainflux	Builds blockchain-based traceability platforms for carbon credits, commodities, and ESG supply chains	**Website**
Charge kart	Developing automated, mobile robotic charging stations and clean EV charging solutions	**Website**
ChargeZone	One of the largest fast-charging infrastructures across India	**Website**
Circinus Batteries India Pvt Ltd	Focused on advanced battery technologies and energy storage solutions, transforming plastic waste into high-performance battery materials	**Website**
ClairCo	Provides AI + IoT-enabled indoor air quality (IAQ) solutions and building energy optimisation systems	**Website**

CLIMAFIX Startup Ecosystem Snapshot

This section lists startups that have presented or participated at CLIMAFIX across editions. The list is provided in alphabetical order for reference.

Startup Name (A–Z)	What They Do	Website
CleanMax	Leading renewable energy partner in India offering solar, rooftop & PPA solutions to help businesses meet sustainability and net-zero goals	**Website**
Clear Meat	A food technology company crafting and cultivating innovative, fast-forward sustainable solutions	**Website**
Climate Collective	Supports, accelerates and connects early-stage climate and sustainability startups with resources, education, investors and community networks.	**Website**
Climeclabs (SRM Chennai)	Building smart affordable sustainable air purifiers w/ C-capture	**Website**
CLIMESHIFT	Offers carbon analytics and climate strategy software to support climate-aligned business decisions	**Website**
Climyn	Builds ESG reporting and compliance automation tools for enterprise sustainability disclosures.	**Website**
Conscience	Builds corporate sustainability training and climate education programs for professionals.	**Website**
Craste	Upcycles crop residue and agricultural waste into high-value, environmentally friendly products such as tree-free paper, biodegradable packaging	**Website**
Crayon	Provides climate-tech product development, prototyping, and industrial design engineering services.	**Website**

CLIMAFIX Startup Ecosystem Snapshot

This section lists startups that have presented or participated at CLIMAFIX across editions. The list is provided in alphabetical order for reference.

Startup Name (A–Z)	What They Do	Website
Cred Avenue	Fintech and digital debt marketplace platform that connects borrowers, lenders, and investors with a unified credit infrastructure	**Website**
Crest Spring Advisory	Delivers ESG advisory, carbon accounting, and sustainability strategy consulting for enterprises.	**Website**
Crion technology	Digital Twin platform for Industrial Asset Management	**Website**
CultYvate	Focused on helping small and marginal farmers improve crop productivity by using data-driven technologies like IoT, AI/ML, satellite data	**Website**
Cygni Energy	Energy storage and battery technology company that designs, engineers and manufactures advanced battery packs and scalable energy storage solutions for electric vehicles and large-scale power systems	**Website**
Daloopa	Uses AI to automate data extraction from documents and financial filings for climate finance and analysis use cases.	**Website**
DashamLabs Private Limited	Designs electronics and IoT hardware for smart energy, smart mobility, and industrial applications.	**Website**
Datasee.AI	Focused on AI-driven data analytics and intelligent automation tools	**Website**
Declutter Solutions Pvt Ltd	Innovative social venture dedicated to transforming waste into value and fostering sustainable practices	**Website**
Demitasse Energies	DeMITasse Energies builds scalable, zero-emission energy storage solutions that enhance grid reliability and enable wider renewable energy adoption	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
Dexler Energy	Clean energy company that develops solar power solutions — including commercial and industrial rooftop solar, modular solar parks, and open-access solar projects	**Website**
Diffuson Coatech	Diffuson Coatech is transforming surface engineering with proprietary diffusion coatings, enhancing wear resistance and durability across industrial applications.	**Website**
Dirac Labs	Provides R&D and consulting in computational modeling for energy systems and materials.	**Website**
Dopar Energy	Develops solar and hybrid renewable energy systems for commercial and industrial users.	**Website**
Dostbin Solutions	Offers automated waste collection and IoT-enabled waste tracking systems for cities and institutions.	**Website**
Dr Blue Eco Tech Pvt Ltd	Provides electrocoagulation-based water treatment systems for industrial and municipal wastewater.	**Website**
E – Samarp Technologies	E-Samarp Technologies specializes in developing efficient and cost-effective motor and controller design for electric vehicles and industrial applications	**Website**
e-TRNL Energy	Developing chemistry-agnostic battery cell technology with higher energy density, lower heating, and better cost efficiency.	**Website**
Eartheon Spatial Technologies Pvt Ltd	Develops geospatial mapping and environmental analytics for land, water, and sustainability planning.	**Website**
EarthFokus	Manufactures water-saving fixtures and retrofits for commercial and residential conservation.	**Website**

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Startup Name (A–Z)	What They Do	Website
ECKLIEN4RAS LLP	ECKLIEN4RAS specializes in land-based Recirculating Aquaculture Systems (RAS) using innovative Electro-Coagulation technology for sustainable seafood production.	**Website**
Eco Protien Pvt. Ltd.	Insect Tech Startup which introduce insects into waste management progressing & unfolds new insight for efficient and sustainable alternative protein food and feed production	**Website**
Eco365 Pvt Ltd	Manufactures water-efficient sanitary fixtures and reusable hygiene products for water conservation.	**Website**
ecoHQ	Sustainability strategy, advocacy, and intelligence platform that helps startups, organisations, and stakeholders integrate climate and ESG principles	**Website**
EcoOrbit solutions	Builds waste sorting and recycling systems for industrial and municipal segments.	**Website**
Ecopak	Manufacturer of certified compostable, bio-based packaging products	**Website**
Ecosperity Mobility Limited	Develops electric mobility fleets and charging solutions for shared mobility systems.	**Website**
ECOSTP Technologies Pvt. Ltd	Sustainability startup offering nature-inspired, zero-energy, decentralized sewage treatment systems	**Website**
Ecowiser	Wiser.eco is a sustainability platform that curates, rates, and promotes eco-friendly products and brands to help shoppers make greener, low-impact purchasing decisions.	**Website**

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Startup Name (A–Z)	What They Do	Website
eDrift Electric	Manufactures electric 2-wheelers designed for commercial delivery and logistics use.	**Website**
EETA6	Focused on sustainable biodegradable waste management using Black Soldier Fly (BSF) insect-based bioconversion technology	**Website**
EH Group	Deep-tech company developing advanced hydrogen fuel cell technology designed to accelerate decarbonisation in sectors where batteries alone fall short	**Website**
EiSqr Solutions Pvt. Ltd.	Provides bespoke Advisory services, configurable Digital tools and on-ground support during Deployment	**Website**
Elevation AI	Builds AI-driven decision platforms for environmental analytics and industrial optimization	**Website**
Ellipsol Systems Private Limited	Developing retrofittable tech to double solar panel energy yield at minimal additional cost.	**Website**
EMACHIN innovation Labs pvt ltd	Designs power electronics and drivetrains for electric mobility and renewable systems.	**Website**
ENCON Energy Services LLP	Offers energy efficiency audits, thermal optimization, and industrial energy conservation services.	**Website**
Energeia	Develops distributed renewable energy projects and microgrid solutions for rural/industrial segments.	**Website**
Energy ETA	Provides IoT-enabled energy monitoring, AI-driven optimisation and automation tools	**Website**

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Startup Name (A–Z)	What They Do	Website
Energyly	IoT-based energy monitoring and analytics company that provides smart hardware-software solutions to help businesses and homes track, analyze, and reduce electricity consumption	**Website**
Entuple EMobility Private Limited	Designs and develops efficient electric powertrains (motors and controllers) and combined charging solutions to accelerate EV adoption	**Website**
eplane Company	The eplane company is pioneering the development of electric vertical take-off and landing (VTOL) aircraft, aiming to transform urban air mobility.	**Website**
Erda Illumine Low Carbon Solutions Pvt Ltd	Indian climate-tech and sustainability company that develops and implements low-carbon, nature-based and clean energy projects	**Website**
Ergon Mobility Pvt Ltd	Innovating electric powertrains to make light EVs more affordable, efficient, and widely adopted.	**Website**
Esandhai	Agri-tech marketplace startup connecting farmers directly with buyers through a tech-enabled platform, focuses on Tier 2 and Tier 3 cities	**Website**
Esmito	Esmito solutions is transforming the electric vehicle (EV) ecosystem with its smart battery swapping and Energy-as-a-Service (EaaS) solutions.	**Website**
Eunoia Innovations Pvt Ltd	Develops smart IoT and AI platforms for energy, water, and facility resource management.	**Website**
Evate Technologies Pvt Ltd	Develops battery management systems and EV charging electronics for electric mobility.	**Website**
Evify Logitech	Provider of end-to-end, multi-mile logistics utilizing an all-electric vehicle (EV) fleet for a sustainable, cost-effective, and transparent supply chain.	**Website**

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Startup Name (A–Z)	What They Do	Website
Farms2Fork Technologies Pvt. Ltd.	Indian agri-tech company, operating under the brand CultYvate, that uses IoT, AI, and machine learning to provide smart farming solutions	**Website**
Fenice Energy	Provides solar rooftop, backup power, and EV charging infrastructure as integrated energy solutions.	**Website**
FinBird technologies	Builds financial and ESG analytics platforms for sustainability-linked investment decisions	**Website**
Flash Energy Solutions	Supplies renewable EPC, power systems, and energy management services for enterprises.	**Website**
FluxGen Technologies	Company providing AI and IoT-powered water management and analytics solutions	**Website**
Fractal Energy	Clean energy tech compqny that develops modular high-efficiency solar and energy storage solutions	**Website**
FREXA	Intelligent Fresh Produce Bulk Packaging for Fruits & Veggies	**Website**
Freyr Energy Services Pvt Ltd	Solar energy company that provides rooftop solar panel systems and turnkey solar solutions	**Website**
Frigate	Develops software automation products for operational intelligence, energy optimization, and analytics	**Website**
Fyn Mobility	Startup offering a full EV-as-a-Service (EVaaS) platform that provides electric vehicles, fleet leasing, integrated last-mile logistics solutions	**Website**

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Startup Name (A–Z)	What They Do	Website
Gastech Systems Pvt Ltd	Develops advanced gas technologies for cleaner energy and emission reduction.	**Website**
GBR Eco Projects	Implements waste-to-energy, composting, and environmental restoration projects for communities.	**Website**
Geo Climate Risk Solutions Pvt Ltd	Specializes in climate resilience, water stewardship, and sustainable environmental solutions.	**Website**
Godi Energy	Focused on research, development, and manufacturing of advanced energy storage technologies	**Website**
GoWatr Pvt Ltd	Offers IoT-based smart water management systems for buildings and industrial facilities	**Website**
GPS Renewables	Full-stack biofuels firm, offering technology & EPC to project development solutions for bioCNG, Ethanol & Green H2.	**Website**
Grassroots Energy	Develops decentralized biogas and bio-CNG plants from agricultural and organic waste.	**Website**
Green Curve Consulting	Provides green building certification, ESG audits, and energy efficiency consulting.	**Website**
Green Era Recyclers	Operates recycling facilities for plastics, metals, and municipal waste streams.	**Website**

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Startup Name (A–Z)	What They Do	Website
Green Sketch Consultants	Green building design and sustainability consulting.	**Website**
Green Tiger Mobility	Manufactures electric two-wheelers optimized for fleet and shared mobility.	**Website**
Greenjams	Produces Agrocrete®, a carbon-negative building material made from crop residues and industrial by-products	**Website**
Greenovate Solutions	Develops energy-saving building technologies and climate-friendly infrastructure systems.	**Website**
GreenPod Labs	Develops cost-effective post-harvest packaging solutions that extend the shelf life of fruits and vegetables.	**Website**
Greenrich Grow India Private Limited	Operates waste processing plants converting organic waste into compost and soil enhancers	**Website**
Grow Your Farms Pvt. Ltd.	Uses technology, data-driven advisory, precision farming tools, and market linkages to help farmers adopt sustainable practices.	**Website**
H2 Carbon Zero	Designs and manufactures modular hydrogen fuel-cell systems, aims to replace diesel generators, using hydrogen fuel, with only water as the emission	**Website**
Hastin Energy Pvt Ltd	Battery design, development, and manufacturing company focused on developing advanced battery solutions	**Website**
HBAROMEGA	Hbaromega delivers solar PV diagnostics with multi-modal imaging technology for defect detection and performance forecasting for solar modules.	**Website**

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Hivericks Technology pvt. ltd.	Builds robotics and automation systems for industrial clean-tech and material handling.	**Website**
Honeycore Products Pvt. Ltd.	Eco-friendly, industrial packaging solutions	**Website**
Hop electric Mobility	Designs and manufactures electric two-wheelers (e-motorcycles and scooters)	**Website**
Hugo Mobility	Manufactures electric mobility vehicles for personal and commercial transport applications	**Website**
Hycell Engage	Develops advanced hydrogen fuel cells and testing systems through global R&D and industry collaborations.	**Website**
Hycosys	Developing hydrogen-fueled micro gas turbines (MGTs) — compact power generation units designed to run on 100% hydrogen	**Website**
Hydrium Energy	Climate-tech startup developing hydrogen fuel-cell and electric power solutions for heavy and niche mobility applications	**Website**
Hydrosun Cleantech Pvt Ltd	Develops solar thermal and hybrid water heating technologies for industrial and residential usage.	**Website**
Hydrovert Energy	Develops hydrogen fuel-cell-based power solutions as zero-emission alternatives to diesel engines	**Website**
Hyetron Energy	Builds battery charging and power electronics solutions for EVs and renewable systems	**Website**

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Hypersonic Technologies Pvt Ltd	Designs high-efficiency electric drivetrains and powertrain systems for mobility	**Website**
i47 Labs	Offers sensor analytics and IoT platforms for predictive maintenance and energy optimization.	**Website**
IBikx Technologies	Manufactures electric bikes and lightweight mobility platforms for urban transport.	**Website**
iGowise Mobility Pvt Ltd	Builds gyroscope-stabilized electric scooters designed for safe and compact city mobility.	**Website**
Illumine-i	Design and engineering solutions for the renewable energy sector, with a special focus on solar power systems.	**Website**
Indra water	Builds modular, decentralized water and wastewater treatment systems using patented electrochemical/electrolytic processes	**Website**
Jivoule Biofuels	Cleantech startup focused on creating the world's most efficient biofuels	**Website**
JSP Enviro Private Limited	Wastewater treatment by delivering deep-climate technology that is energy-efficient, chemical-free, and designed to minimize carbon footprints.	**Website**
Jwala Bioenergy	Develops biogas and biomethane projects from agricultural residues (like paddy straw)	**Website**

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Kaashyap Envergy Infrastructures Pvt Ltd	Builds renewable energy infrastructure and solar EPC projects.	**Website**
Kankyo Bert Pvt Ltd	Designs zero-liquid-discharge and advanced wastewater treatment solutions for industries.	**Website**
Kardle industries Pvt Ltd	Creates advanced emission-control and carbon-capture solutions to help industrial sectors cut pollutants	**Website**
KarioT	Manufactures EV telematics and fleet intelligence platforms for monitoring energy, safety, and performance.	**Website**
Kinisi E-mobility	Develops electric mobility platforms for last-mile deliveries and shared transport.	**Website**
KriSHE Carbon	Smallholder farmers turn agricultural waste into income through traceable biochar and verified carbon credits.	**Website**
Kudai Fungi	Produces sustainable mushroom-based food and agricultural products using circular biomass.	**Website**
LanzaTech	Transforms waste carbon emissions into low-carbon fuels and materials, helping decarbonize heavy industries and support a circular carbon economy.	**Website**
Li-Circle	Li Circle is recycling end-of-life Lithium-ion batteries	**Website**
Liger Mobility	Self-balancing electric scooters with AI-enabled safety and comfort features to accelerate safer, smarter, and more sustainable urban mobility.	**Website**

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LivNSense GreenOPS	Leading Industrial AI company that is addressing "Net Zero Challenge" to reduce GHG carbon emissions across the globe	**Website**
Log9 Materials	Innovating advanced battery technology for EVs & Energy storage	**Website**
Logicladder Technologies Private Limited	Unified SaaS platform for Carbon Accounting, ESG, Sustainability Reporting and Decarbonization.	**Website**
LoopM Alternatives	Manufactures reusable, non-plastic consumer products to replace disposable materials.	**Website**
Loopworm	Uses insect biotechnology (Black Soldier Fly – BSF) to convert organic waste into high-value sustainable proteins, oils and bio-inputs	**Website**
Lumenor AI Tech Pvt Ltd	Offers AI-driven analytics platforms for energy forecasting, resource management, and carbon modeling.	**Website**
Magenta Mobility	Runs and manages EV fleets and AI-enabled software to power sustainable last-mile delivery and logistics solutions for businesses.	**Website**
Magnum Eco Tech	Provides water and wastewater treatment systems for industrial and commercial use.	**Website**
Maini Renewables	Harnessing the power of water with damless hydrokinetic turbines	**Website**

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Matolutions	Sustainability-focused materials startup that develops biopolymer compounds and biodegradable materials from industrial and agricultural wastes	**Website**
Medius Earth	Offers environmental data and ESG analytics for climate disclosures and compliance.	**Website**
Mellifera Hash Blocks Pvt. Ltd.	Builds blockchain solutions for traceability, carbon markets, and supply chain sustainability.	**Website**
Meraki Labs	Develops biotechnology solutions for waste treatment and industrial sustainability.	**Website**
Metayage Pvt Ltd.	Builds high-tech controlled cultivation solutions for resource-efficient agriculture.	**Website**
MetroRide Kids	Manufactures lightweight electric ride-ons and learning mobility vehicles for children.	**Website**
Mexitron	Develops smart energy metering and IoT control systems for homes and commercial buildings.	**Website**
MOJO GREEN	Focused on zero-emissions mobile power and EV charging solutions	**Website**
MOOEV	Focused on accelerating the electrification of heavy-duty freight and commercial vehicles.It provides system engineering, fleet-as-a-service solutions, battery and charging management, and EV fleet operation tools	**Website**
Mrida	Works to catalyse sustainable, scalable rural transformation through community-centric economic and environmental initiatives	**Website**

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MuddleArt	Upcycles textile waste into new products, enabling circularity in the apparel and fashion value chain.	**Website**
myharvest farms	An online farm-to-home platform selling organic, chemical-free fresh produce and groceries sourced directly from local farmers with doorstep delivery.	**Website**
MyPickup	Offers shared logistics and delivery solutions optimized for fuel efficiency and lower emissions	**Website**
Nanneer Global Private Limited	Develops sustainable water, sanitation, and hygiene (WASH) solutions for communities and institutions	**Website**
NANOBIOGRAPHITES PVT LTD	Manufactures graphene-based materials and nano-additives for energy storage and composites.	**Website**
Natur Tec	Global bioplastics company that develops and manufactures biobased, compostable, and biodegradable polymer resins and materials as sustainable alternatives to conventional plastics	**Website**
Navalt	Designs, engineers and manufactures solar-electric, electric and hybrid vessels aimed at decarbonising water transport and marine mobility	**Website**
Naxatra Labs	Builds geospatial intelligence tools and satellite analytics for climate resilience and planning.	**Website**
Neopulse Energy	Develops energy storage systems and smart batteries for renewable integration.	**Website**
Neoterra Tech	Provides soil restoration and regenerative agriculture solutions using microbial technologies	**Website**

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Startup Name (A–Z)	What They Do	Website
Neroex	Builds EV powertrain and energy electronics platforms for mobility electrification.	**Website**
Nettoyer Automotives	Manufactures electric mobility components and charging hardware for two- and three-wheelers.	**Website**
Neural Defend	Develops cybersecurity systems for critical infrastructure including energy and mobility networks.	**Website**
Newcycl	Builds smart, IoT-based solutions that help households convert food waste into compost and reduce waste at the source.	**Website**
Newtrace	Develops advanced electrolyser technology for green hydrogen production.	**Website**
NikOttO Pvt. Ltd.	Indian company registered for research and experimental development in natural sciences and engineering, focusing on R&D	**Website**
NorthStar Impact Solution	Builds software to help organizations measure, and track sustainability goals and business impact for strategic decision-making and climate commitments.	**Website**
Nunam Technologies PVT Ltd	Repurposes used lithium-ion batteries (especially from EVs) into affordable, smart second-life energy storage systems using data-driven analytics	**Website**
Nurture.farm	Offering farm advisory, mechanization, agri-input marketplace, and sustainability services	**Website**

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NylaNova	Develops chemical recycling technology to break down nylon plastic waste into reusable raw materials and enable a closed-loop circular economy for nylon products.	**Website**
Ocean Vital Aquatics	Ocean Vital Aquatics produces seaweed-based supplements for poultry and aquaculture, addressing bone health and mortality rates.	**Website**
Ofofo	AI-powered platform that helps B2B companies automate compliance and security due-diligence tasks like answering questionnaires and accessing cybersecurity tools.	**Website**
OGMO Foods	OGMO foods is dedicated to providing millet-based, healthy, and gluten-free food options.	**Website**
Ohmium	Drives sustainability by enabling cost-effective green hydrogen production with advanced electrolyzer technology, reducing dependence on fossil fuels and cutting CO_2 emissions.	**Website**
Omnisavant	Startup focused on providing technology and business solutions	**Website**
Omshakthi Monitoring Service Pvt.Ltd.,	Provides AI-powered video surveillance and monitoring solutions to help businesses analyze and secure operations through advanced video analytics.	**Website**
One PV	Indian startup using AI, drone imaging, and machine-learning to help monitor and manage risk/defects in solar and renewable energy assets for insurers and operators.	**Website**
One Sust	Advocates and builds solutions for sustainability and circular economy goals, especially around waste and environmental impact.	**Website**
Onelement Energy Pvt Ltd	Developing and deploying carbon capture, clean energy and hydrogen-based power solutions to reduce emissions and support sustainable energy systems.	**Website**

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Startup Name (A–Z)	What They Do	Website
Oorja.energy	Uses a hybrid approach combining physics-based models + machine learning, to optimise design, performance, safety, life-cycle and operational decisions for batteries	**Website**
OpenByke	Makes clean, efficient, cost-effective electric micro-mobility solutions.	**Website**
Openwater.in Pvt Ltd	Focuses on chemical-free, membrane-less, low-energy water purification and wastewater treatment technologies.	**Website**
Orbi2aNext	An enterprise offering project management, sustainability strategy, renewables infrastructure execution and ESG/operational services	**Website**
Orcci Eco Products	Helps businesses reduce environmental impact with products and services like biogas plants, composting machines, and ESG/waste audits.	**Website**
Origami Cellulo Pvt Ltd	Paper products manufacturer best known for producing a wide range of tissue and hygiene paper products	**Website**
Ozone Motors	Ozone Motors has revolutionized electric vehicle development with its innovative platform, Alice One	**Website**
PadCare	Recycling menstrual waste into valuable products and reducing plastic pollution, landfill burden, and greenhouse gas emissions.	**Website**
PANI	Builds AI-powered software that helps water utilities and industrial plants run treatment and desalination systems	**Website**

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Pāvakaḥ Energy	Developing a novel photovoltaic thin film material and process which can convert any ordinary surface into a solar panel.	**Website**
Pepul	Social networking platform where users share life stories, develop skills, and find job opportunities in a privacy-focused community.	**Website**
PerfoMax.io	Uses industrial AI and analytics to monitor and optimize performance of maritime and industrial assets.	**Website**
Perpetra Solar	Develops solar energy solutions and installs clean power systems for homes and businesses.	**Website**
PHYCOSOL	Uses microalgae to provide sustainable wastewater treatment and environmental biotech solutions.	**Website**
Planet Electric	e-mobility startup innovating lightweight electric vehicle structures and next-generation materials that reduce vehicle weight and battery needs	**Website**
PLASKON	Turns plastic waste into recycled raw materials and eco-friendly products	**Website**
PlaySolar	Provides IoT-enabled solar power solutions and cloud monitoring to make renewable energy more efficient.	**Website**
Ploxi	Consultancy that helps organizations with growth, ESG strategy, and environmental solutions across energy, water, waste, and air quality.	**Website**
Polycyl	Converts hard-to-recycle plastic waste into valuable fuels and raw materials using advanced chemical recycling, enabling a circular and low-carbon plastics economy.	**Website**

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Prayogik	Develops and deploys sustainable technology solutions for water treatment and industrial wastewater management.	**Website**
PRESPL	Converts agricultural waste into clean bioenergy through efficient biomass supply chains	**Website**
Pristine Energia	Develops eco-friendly biochar and activated carbon technologies to help reduce greenhouse gas emissions	**Website**
Progen Foods Pvt Ltd	Progen foods offers indigenous, high-quality protein alternatives that reduce import dependence and carbon footprint.	**Website**
Proklean Technologies	Manufactures probiotic-based, eco-friendly alternatives to harmful industrial chemicals.	**Website**
Promethean Energy	IoT-enabled thermal waste heat recovery solutions that reduce energy costs by up to 40% while achieving sustainability goals.	**Website**
Protonas	Developing affordable fuel cell products to expand hydrogen use and enable a cleaner energy future.	**Website**
Prozero Carbon	Helps businesses reduce and neutralize their carbon emissions through carbon management, accounting, and sustainability services.	**Website**
Pudhuvai Green Gas, Chemicals and Fertilizers Pvt Ltd	Produces green gas and sustainable chemical/fertilizer products from organic waste and renewable resources.	**Website**
Pyse	Platform that lets retail investors buy fractional stakes in clean energy and sustainable asset projects to earn returns	**Website**

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QualGrip	IoT-based water management startup that detects leaks and helps reduce water loss.	**Website**
Qualivon Tech	Builds AI-powered analytics and automation solutions to help businesses improve operational efficiency and decision-making.	**Website**
Quant AI	Provides advanced conversational AI agents and analytics tools to help businesses automate insights and optimise customer interactions.	**Website**
Raksha Green Solutiions LLP	Provides renewable energy solutions, especially solar power systems, for homes and businesses.	**Website**
Ramya Materials	Manufactures and supplies sustainable construction materials and eco-friendly building products.	**Website**
RangBio	Biotech startup producing sustainable, non-toxic dyes and colors from microbes.	**Website**
RAPDFLY	Rapdfly offers portable, eco-friendly power solutions designed to replace traditional **gas** generators, providing convenient and emission-free electricity for various appliances.	**Website**
Raptee.HV	Developing high-voltage electric motorcycles using technology traditionally found in electric cars	**Website**
Rbuy Solutions	Builds e-commerce and digital ordering platforms that help businesses sell products online more efficiently.	**Website**
RC Labs	Design and manufacture Intelligent Battery Management Systems for EVs and stationary energy storage	**Website**

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RE-EARTH	Develops AI-powered analytics and digital tools to help organizations monitor, measure, and improve their environmental and sustainability performance.	**Website**
Recircle	Provides reusable packaging solutions and a circular supply system to reduce single-use waste in retail and delivery.	**Website**
Reconnect Energy	Clean-energy technology company that provides software and market solutions for renewable energy trading, forecasting, and optimization	**Website**
Recyclink	Uses technology to connect waste generators with recyclers and improve recycling.	**Website**
Refiny Industries Private Limited	Marketplace that connects companies with verified recyclers to streamline plastic waste recycling.	**Website**
Remon Solutions Pvt Ltd	Builds AI-powered customer support automation and insights tools for businesses.	**Website**
REMster Innovations	Develops tech-enabled solutions (like smart robotic systems) for industrial automation and operational efficiency.	**Website**
Renerzies	Focused on sustainable recycling and resource recovery technologies.	**Website**
RenewCred	Carbon credits and offsets registry focused on tech-based solutions backed by rigorous MRV and financial ratings.	**Website**
RenKube	AI-powered solar panels using Motion Free Optical Tracking (MFOT) technology to boost energy yield without moving parts, making solar power more efficient, affordable, and sustainable	**Website**

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RePlast	Converts plastic waste into recycled pellets and industrial products, helping reduce plastic pollution and support a more sustainable, circular materials economy.	**Website**
Resilience AI	Uses machine learning and deep climate analytics to produce hyper-local climate risk maps, automated diagnostics and actionable climate-risk mitigation plans	**Website**
Retrack Automation	Builds automation and tracking solutions that help industries monitor assets and improve operational efficiency.	**Website**
ReUpyog	Re-commerce platform that enables the purchase, repair, and resale of renewed electronic devices to extend product life, reduce e-waste, and promote sustainable consumption.	**Website**
Revamp Moto	Rebuilds and upgrades classic motorcycles into modern, customized, high-performance bikes.	**Website**
Reverclean Energy	Renewable energy company focused on clean power generation and energy solutions	**Website**
Rewired	Startup building a used-EV ecosystem by making electric vehicles serviceable, reliable, and warranty-ready for wider adoption.	**Website**
Rhinnovate Solutions Pvt. Ltd.	Provides tech-driven business and HR software solutions to help organizations streamline operations and workforce management.	**Website**
Ride 91 Green Mobility Pvt Ltd.	Operates electric vehicle charging and green mobility services to support EV adoption.	**Website**
Roha Biotech	Makes sustainable, biodegradable packaging materials from mushroom mycelium and agricultural waste to replace plastics and styrofoam.	**Website**

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RuKart	Sustainable natural cooling solutions to help farmers store and preserve produce without electricity.	**Website**
Ruuris Innovations	Connects brands with sustainable, eco-friendly packaging and materials suppliers to support greener supply chains.	**Website**
Saarthi GreenTech	Provides renewable energy solutions like solar power systems and clean energy installations.	**Website**
SafEarth Renewables	Provides eco-friendly waste management and recycling solutions to reduce environmental impact.	**Website**
Sai Bioenergy Pvt. Ltd.	Develops and delivers sustainable bioenergy solutions to reduce reliance on fossil energy.	**Website**
Samatha Green Energy Solutions	Builds digital tools to help businesses measure, reduce, and manage their carbon emissions for sustainability.	**Website**
Samudhyoga waste chakra pvt ltd.	Clean tech company specialized in designing and manufacturing advanced circular economy technology that derives value out of waste	**Website**
Samyuk Sustainable Solutions	Helps businesses manage sustainability and ESG reporting with software tools that track environmental and social impact.	**Website**
Sanal	Eco-friendly retail and awareness brand offering plastic-free, sustainable everyday products	**Website**
Sarvam	Builds AI-powered automation and business intelligence tools to help companies improve operations and decision-making.	**Website**

CLIMAFIX Startup Ecosystem Snapshot

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Startup Name (A–Z)	What They Do	Website
Scion Algae	Scion algae offers advanced algae cultivation technology, producing high-value nutraceuticals and vegan proteins.	**Website**
SCRAPHUB	Tech-enabled recycling platform that connects scrap sellers with verified recyclers to streamline waste collection and recycling.	**Website**
Scrapify Ecotech	Develops autonomous water drones with AI-based navigation and real-time monitoring for efficient cleaning of water bodies	**Website**
Sea6 Energy	Pioneers large-scale, mechanized ocean farming and seaweed processing to create sustainable biomass for biofuels, bioplastics and renewable chemicals	**Website**
Seagrass	Cultivates and commercialises marine micro-algae biomass	**Website**
SECO India	Provides renewable energy solutions, especially solar PV installations and clean power services.	**Website**
Seeo2	Company focused on efficiently converting carbon dioxide (CO 2) into marketable and clean value-added fuels and chemicals.	**Website**
Seri-Green Technologies	Develops sustainable tech solutions for green energy, waste recycling, and environmental impact reduction.	**Website**
Shakti Photon Solutions	Develops cost-effective PEM and AEM electrolyzers for scalable green hydrogen production	**Website**
Sina Mobility	Electric-vehicle startup developing a fully enclosed, self-balancing two-wheeled electric vehicle (“BikeCar”) to make daily commuting safer	**Website**

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Startup Name (A–Z)	What They Do	Website
Sirinor	SiriNor develops an electric jet engine designed to reduce greenhouse gas emissions in aviation through hydrogen-electric propulsion.	**Website**
Sistema.bio	Provides high-efficiency biodigesters transforming animal/organic waste into renewable biogas and organic fertiliser	**Website**
Skandax Nexus Private Limited	Develops AI, blockchain, and sustainability solutions	**Website**
Smart Joules	Provides AI and IoT-powered energy efficiency and optimization solutions (like cooling-as-a-service and intelligent building energy management)	**Website**
SMD Power Solutions IAC	IAC is implementing AI-driven retrofit solutions to enhance thermal efficiency and reduce energy consumption in existing air conditioning systems.	**Website**
SolarClue	Solar-energy marketplace that connects customers with verified solar installers and product providers to streamline adoption of clean solar power solutions	**Website**
SolarSquare Energy	Offers residential rooftop solar systems and end-to-end solar solutions	**Website**
Solinas Integrity	Develops robotics, AI-driven diagnostics, and digitisation tools to improve inspection, maintenance and management of underground water, sewer and sanitation infrastructure.	**Website**
Sooorya	Builds affordable 8-seater electric vehicles (like e-taxis) with solar and swappable batteries	**Website**
Spero Mobility	Developing e-bikes and battery/energy solutions to support sustainable transport and reduced fossil-fuel dependence	**Website**

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Spoctech Green Ventures Pvt. Ltd.	Provides green technology solutions and services for sustainable energy and environmental impact reduction.	**Website**
Spreco Recycling Pvt Ltd	Provides collection, sorting, and recycling services to turn waste into reusable materials	**Website**
Sri Vidhyut Eco Tech Pvt Ltd	Provides renewable energy and eco-tech solutions, including solar power systems and clean energy services.	**Website**
Srinivasa Waste Management	Pioneer in delivering holistic waste management services aimed at creating a zero-waste environment.	**Website**
SS GreenGold Industries	Produces and exports eco-friendly natural coir products	**Website**
Statiq	Clean-energy infrastructure company that builds and operates electric vehicle charging stations and related software solutions to accelerate EV adoption	**Website**
Sthyr Energy Pvt Ltd	Developing zinc-air batteries for safe, low-cost, long-duration grid-scale energy storage.	**Website**
Strawcture ECO	Makes sustainable building materials and structures from agricultural straw	**Website**
Strung	Develops bio-based materials from organic waste using non-toxic processes for next-generation textile applications.	**Website**
Sugrah Mobility	Designs and manufactures solar-powered, pedal-assisted electric three-wheelers aimed at last-mile transport and goods movement	**Website**

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Startup Name (A–Z)	What They Do	Website
SuGree products	Makes eco-friendly consumer and home care products using natural, biodegradable ingredients.	**Website**
Sunrise CSP	Designs, builds and operates concentrated solar thermal power systems (using its patented "Big Dish" technology) to deliver sustainable industrial heat and electricity generation	**Website**
SunStream Energy	Designs and installs solar photovoltaic (PV) systems for homes, farms, and businesses to help reduce electricity costs and cut carbon emissions	**Website**
Susstains Engineering Solutions LLP	**Susstains** converts **agricultural waste into biochar and hydrogen** through sustainable, licensed technology to **reduce CO2 emissions** in steel production and activated carbon industries.	**Website**
Sustainabyte Technologies Pvt Ltd	Develops smart water and sustainability tech solutions	**Website**
Sustainext	Helps businesses automate ESG and carbon reporting and provides sustainability strategy and advisory tools using tech and data.	**Website**
Sustein Ltd.	Makes sustainable, bio-based materials to replace plastics.	**Website**
SustLabs	Develops sustainable materials and eco-friendly chemical solutions	**Website**
Suzhiyam Industrial Machines Pvt Ltd	Manufactures industrial pellet burners designed to use agricultural waste–based pellets as a substitute for fossil fuels like furnace oil, diesel, LPG/CNG in industrial heating	**Website**
Swachha Eco Solutions	Integrated waste-management and recycling company that provides end-to-end collection, segregation, processing, and recycling of municipal, residential, commercial, and industrial waste	**Website**

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Startup Name (A–Z)	What They Do	Website
Syaahi Uniforms	Makes eco-friendly and customized school and corporate uniforms with a focus on ethical manufacturing.	**Website**
Takachar	Climate tech company converting agricultural and forestry waste into value-added carbon-negative products and biochar-based materials	**Website**
Tamirabot	Tamirabot developsadvanced EV charging solutions with improved thermal efficiency, longer lifespan, and faster charging, using indigeneously manufactured technology.	**Website**
Tan90 Thermal Solutions	Startup that creates energy-efficient, sustainable thermal management and cold-chain solutions	**Website**
Terra solve renewables	Independent power producer that builds and operates solar, wind, and energy storage projects and provides smart grid integration services	**Website**
Terracarb	Develops proprietary graphene materials and dispersions for use across industries such as construction, paints & coatings, energy storage, composites, electronics and technical textiles	**Website**
Terracusto	Terracusto enables biogenic carbon removal by transforming biomass burning into profitable biochar production.	**Website**
Teru Energy Pvt Ltd	Develops an AI-powered energy “co-pilot” platform and solar marketplace	**Website**
Terviva India Pvt Ltd	Focuses on sustainable agricultural value chains based around Pongamia trees, participates in procurement, supply chain, sourcing and export of agricultural commodities	**Website**
Tezta Energy	Focuses on clean energy solutions and renewable power technologies	Website

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Startup Name (A–Z)	What They Do	Website
ThaalChemy Innovations	Climate-tech venture focused on chemically recycling polyurethane foam waste into valuable raw materials	**Website**
Tharam -Thiran Green Energy Flow Pvt Ltd	Startup developing and commercialising affordable, safe long-duration sulfur-iron redox flow battery systems	**Website**
The Earthist	Helps organisations measure and reduce their environmental impact through carbon footprint assessment, carbon credit trading, renewable energy project support and climate solutions	**Website**
The Energy Company	Focused on advanced battery systems, smart energy storage and EV power solutions	**Website**
The Green Era recyclers	Recycling company that collects, processes, and recycles post-consumer plastic waste into eco-friendly recycled products and raw materials	**Website**
Think42 Labs	Builds AI and data analytics solutions that help businesses automate insights, optimize operations, and make smarter decisions.	**Website**
Thryve.Earth	Provides a digital platform that helps companies track, reduce, and manage carbon emissions	**Website**
TOCAL (DbyT Dynamics Mobility Solutions Private Limited)	Converts plastic waste into usable fuels, chemicals, and recycled polymers through advanced recycling technologies	**Website**
TraceX Technologies	Builds end-to-end traceability, farm management, supply-chain transparency and climate-compliance solutions for food, agriculture and related value chains	**Website**

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Startup Name (A–Z)	What They Do	Website
TraceXero	Developing innovative technologies to remove CO_2 from the emissions and transform them into graphitic carbon, oxygen and other value-added products	**Website**
Trashnet	Connects waste generators with waste collectors and recyclers through technology	**Website**
Triolt Energy Private Limited	Build advanced lithium and beyond-lithium cells, delivering safe, high-performance, and reliable energy storage solutions.	**Website**
Trishul Biotech	Develops bio-based agricultural products and biotech solutions	**Website**
TropicalBIPVs	Technology focused on integrating solar photovoltaic systems directly into building structures	**Website**
TRST01	Blockchain-enabled sustainability tech company providing end-to-end supply chain traceability, ESG compliance, and digital monitoring/reporting tools	**Website**
Tryangle 42 Labs	Builds data, AI, and product engineering solutions to help companies innovate and scale digital systems.	**Website**
UC Impower	Provides EV charging infrastructure and energy solutions	**Website**
Ular Dry Tech Private Limited	Developing a precision powder manufacturing platform for advanced battery materials	**Website**

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Startup Name (A–Z)	What They Do	Website
Uncompromised	Focusing on scalable climate-resilient regenerative agriculture.	**Website**
Upcyclie	Brand that transforms textile and fabric waste into eco-friendly bags, accessories, and everyday products	**Website**
Uravu labs	Startup that uses renewable-energy-powered atmospheric water generation technology to extract clean drinking water from airwith a low-carbon footprint.	**Website**
Vaayushna Technologies Pvt Ltd	A clean-tech startup focused on wind and nature-friendly renewable energy solutions.	**Website**
VAPAC Bio-Plastics	A sustainable packaging solution utilizing agricultural waste to produce eco-friendly external packaging products and reduce deforestation and carbon emissions.	**Website**
VASSMAAN Group of Companies	Energy efficient gear technology	**Website**
VayuJal Technologies	Makes atmospheric water generators to pull clean drinking water from air.	**Website**
Vayve Mobility	Designing and developing compact electric vehicles, including solar-integrated EVs tailored for urban mobility	**Website**
VIKI.AI	Builds AI-native platforms and sustainable tech solutions for business transformation.	**Website**
Virupaksha controls and automation pvt ltd	Providing solutions in the field of renewable energy, process instrumentation, and automation solutions.	**Website**

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Startup Name (A–Z)	What They Do	Website
Visarj	Provides immersion cooling solutions that reduce water and space usage, while enhancing hardware efficiency and lifespan for data centers and electric vehicle batteries.	**Website**
Vivificia Sustainable Solutions Pvt. Ltd.	Develops automated biogas systems and organic waste treatment solutions (like the WENERATOR) to convert food and organic waste into clean energy	**Website**
Viyen Biotech	Develops sustainable biotechnologies and products for agriculture and environmental health.	**Website**
VSRI Energy Solutions Private Limited	Provider of hydrogen retrofitting technologies enabling gasoline engines to run on hydrogen fuel	**Website**
Wankel Energy Systems	Startup incubated at IIT Madras that has developed a patented high-efficiency steam expander to capture wasted industrial steam energy and convert it into clean electricity	**Website**
Warar Energy Pvt Ltd	Warar Energy designs cost-effective electric vehicles optimized for last-mile urban logistics and cargo mobility.	**Website**
Waste Is Gold Technologies Pvt. Ltd.	Provides waste collection and recycling solutions that turn waste into reusable materials and economic value.	**Website**
Waste Winn	Collect, transport and process all municipal solid waste generated by bulk waste generators ensuring 100% legal compliance and sustainability	**Website**
Wastelink	Technology-enabled waste-management and recycling platform that connects households and businesses with waste collectors and recyclers	**Website**
Waterfall Automation	Builds IoT-based smart irrigation systems that optimize water use and boost crop productivity.	**Website**

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Startup Name (A–Z)	What They Do	Website
Waterfly Technologies	IIT Madras-incubated aerospace-tech startup developing electric Wing-in-Ground (WIG) seagliders	**Website**
Watsan Enviro	WATSAN provides innovative, affordable, and electricity-free water purification and sanitation solutions for underserved communities.	**Website**
WattHour24	WattHour24 develops scalable sodium-ion batteries, leveraging earth-abundant materials for a geopolitically secure supply chain.	**Website**
Way2Grow	Builds AI-powered precision irrigation and smart water-management systems to boost crop yield and conserve water.	**Website**
Waycool foods	Uses technology to connect farmers with retailers and consumers, reduce food wastage and improve farmer incomes	**Website**
WeGoT	IoT-driven smart water management startup that provides real-time monitoring, leak detection and analytics to reduce water wastage	**Website**
WeKalp	Empowers farmers with digital tools, advisory, and technology services for sustainable and efficient agriculture.	**Website**
Welfund	Sustainable-asset financing platform	**Website**
Wenergie	Startup building smart, decentralised electricity solutions (including solar + storage and grid-integration tech)	**Website**
Winova Enterprises Pvt Ltd	Makes eco-friendly personal care and hygiene products	**Website**

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Startup Name (A–Z)	What They Do	Website
X2Fuels and Energy	Uses advanced waste-to-energy and biofuel technologies (like hydrothermal liquefaction) to convert diverse waste into renewable fuels and energy products.	**Website**
Xenvolt Technologies	Builds AI-driven industrial and renewable energy intelligence software across sectors like energy and manufacturing.	**Website**
Xoptimus	Develops AI-enabled Cleantech charging accessories to optimize battery life and reduce energy consumption for smart devices in corporate and smart building environments	**Website**
XYMA Analytics	Builds smart industrial and IoT solutions	**Website**
Yali Mobility	Develops electric vehicles and smart mobility solutions for clean, sustainable transportation.	**Website**
Yantra Harvest	Energy Saving Solution Provider Company	**Website**
Yotuh Energy	Develops 100% electric refrigeration systems for small commercial and EV vehicles to make cold chain logistics more efficient	**Website**
Yuji Labs	Builds industrial intelligence systems using IIoT, edge computing and AI to help factories and energy plants	**Website**
Zealev	Designs and manufactures next-generation power converter systems for battery energy storage, ultrafast EV charging, DC microgrids, and related clean energy infrastructure	**Website**
Zedbee Technologies	Provides IoT-enabled smart building automation and energy management solutions	**Website**

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Startup Name (A–Z)	What They Do	Website
ZEEX AI	Uses AI and analytics to help businesses automatically organize, analyze, and act on their data.	**Website**
Zenathom	Builds performance analytics and automation software that helps manufacturing companies improve productivity and operational efficiency.	**Website**
Zero meat	Sprouting dpiit recognized start-up working towards developing sustainable plant-based food options	**Website**
Zerocircle	Startup creating ocean-safe, regenerative biomaterials from seaweed to replace traditional plastics and other carbon-intensive materials	**Website**
ZeroEarthCompany	Develops smart electric vehicle charging and energy-management solutions to support EV adoption and grid efficiency.	**Website**
Zerowatt	AI- and IoT-powered energy intelligence systems to monitor, optimize, and reduce industrial energy consumption and carbon emissions	**Website**
ZeroXc Sustainability Ltd	Helps farmers turn agricultural waste into income and reduce carbon emissions	**Website**
Zodhya	Develops AI-powered hardware and software solutions to reduce energy consumption and carbon emissions, especially in commercial real estate and industrial spaces	**Website**

What do participants say about CLIMAFIX

The following feedback reflects views shared by participants at CLIMAFIX Summit 2025

★★★★★

If you are in a green / renewable industry, whether as startup, expert or investor, you must have to be here at Climafix

Devrishi Arora
Evify Logitech Private Limited

★★★★★

Loaded, insightful, great network

Narendran
Mela Ventures

★★★★★

One space where climate stakeholders get together

Deepa Sai
EcoHQ consulting and Zha VC

★★★★★

I would call it as Climasangamam – Sangamam of all people from various portfolios

Revathi G
RangBio Solutions

What do participants say about CLIMAFIX

The following feedback reflects views shared by participants at CLIMAFIX Summit 2025

★★★★★

A must visit event to get updated with RE trends, Funding options and people willing to collaborate on ventures

Divakaran K
Acclaim Technologies

★★★★★

Climafix is India'a largest gathering of new energy and sustainability sector investors and startups

Girish Ghildiyal
HPCL-Mittal Energy Limited

★★★★★

A great event for networking and understanding interesting companies and their conversations w. r. t. Sustainability.

Rahul Hukkeri
Vaayushna Technologies Pvt. Ltd.

★★★★★

Nice place to meet Innovators, Investors and Industrialists all in one place. All are climate warriors.

GS Soundara Rajan
SK Alldelite

What do participants say about CLIMAFIX

The following feedback reflects views shared by participants at CLIMAFIX Summit 2025

★★★★★

A lively event with the participation of many young innovators and investors aspiring to achieve in the climate sapce. Curation could have been better.

Murali Janakaraj
Innovatek Private Limited

★★★★★

A mega happening within Chennai, you are fortunate if you are in Chennai. One event where you can stay updated on the latest happenings in cleantech and climate tech innovations and founders.

Preetha K V
Madras School of Social Work

★★★★★

An inspiring convergence of climate-tech innovators, investors, and ecosystem builders—where we showcased our modular plasma pyrolysis technology for carbon-negative hydrogen and advanced carbon black. It was energizing to connect with like-minded founders, explore funding pathways, and align our deep-tech vision with India's decarbonization goals.

Jayaraman Kandasamy

★★★★★

Climafix is a platform which showcases Innovation being applied on-ground, and helps with a clear pathway from lab to commercial scale

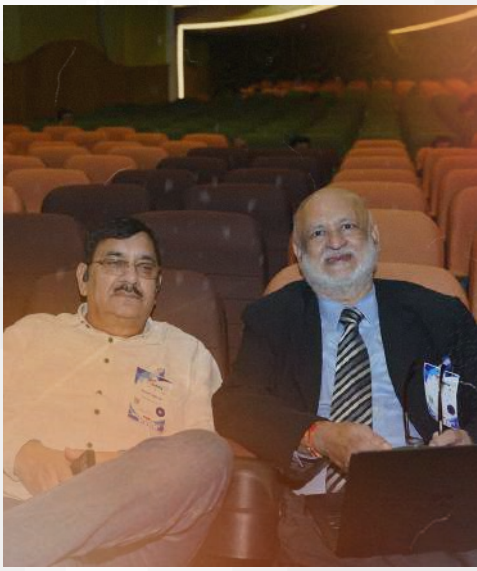
Ankush Sharma
Aadinex Ecosynth Pvt Ltd

CLIMAFIX 2025 Snapshots

A snapshot of interactions, discussions, and collaborations among participants during CLIMAFIX 2025

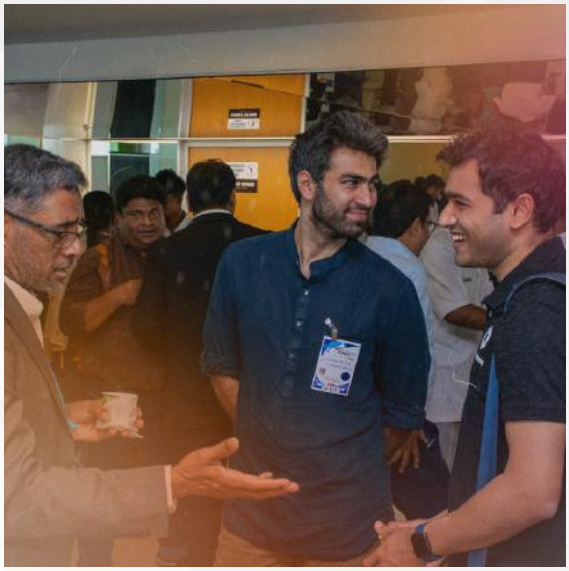




CLIMAFIX 2025 Snapshots

A snapshot of interactions, discussions, and collaborations among participants during CLIMAFIX 2025




CLIMAFIX 2025 Snapshots

A snapshot of interactions, discussions, and collaborations among participants during CLIMAFIX 2025







Conclusion & Strategic Takeaways

Industrial Decarbonization Progress

CLIMAFIX **Summit** 2025 highlighted how industrial decarbonization in India is progressing in practice. The discussions showed that many solutions are technically viable, but adoption depends on how well they fit into existing industrial systems, procurement processes and operating priorities. Reliability, cost visibility, integration effort, and accountability continue to shape decisions more than ambition alone. Across domains, progress is strongest where startups, corporates, and investors engage early on deployment conditions rather than treating scale as a later concern.

Ecosystem Coordination Needed

The summit also surfaced the need for closer coordination across the ecosystem. Startups need clearer signals on where pilots can convert into procurement. Corporates need solutions that align with uptime, safety, and financial planning. Investors and institutions play a critical role in supporting the transition from demonstration to deployment, especially for capital-intensive and hardware-led solutions.

We thank the speakers, startup founders, corporate participants, investors, and research institutions who contributed to CLIMAFIX 2025.

What to Expect from CLIMAFIX 2026

Stay Connected with CLIMAFIX

CLIMAFIX is a powerful connector for the Indian climate innovation ecosystem. We invite you to engage with us whether you are a startup, investor, industrialist, researcher, or government stakeholder to accelerate India's climate tech innovation.

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