

AIC SUSTAINABILITY BOOKLET





Startups



About Sustainability

With a mission to foster a culture of innovation across India, Atal Innovation Centre (AIC) has partnered with T-Hub Foundation to support startups working in the Healthcare, Mobility, Sustainability and Semiconductor sectors. This program aims to empower tech startups innovating with cutting-edge solutions in the sustainability sector. The program enables startups that are MVP ready and past product validation stage to access the market, investors, global mentors, industry experts, service providers and fellow entrepreneurs. With the help of world-class experts and resources, startups get to sharpen their understanding of markets, refine their business and commercialisation plans, and become market-ready.



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BlueLeaves

BlueLeaves Farms

Company name BlueLeaves Farms

Company location Hyderabad, Telangana

Sector and sub-sector Agriculture & Agriculture technology

Years in operations 1 year

Full-time or part-time Full time

Founders brief

Likhith Shyam - Pennsylvania State University alumnus (B.Sc Mechanical Engineering & B.Sc Computer Science) and worked with humanitarian engineering and social entrepreneurship club to develop affordable hydroponic grow kit business venture to address food insecurity. Well-equipped and experienced technician in both soil-less agriculture and engineering design.

Swetha Kondru - Lovely Professional University (M.Sc (Ag) Genetics & Plant Breeding). Worked with crop ideotypes and their adaptability in day-to-day lives.

Core team details & team size

Likhith Shyam (Founder & Product Designer), Swetha Kondru (Founder, Agriculture Scientist) & Ravi Goud (Mechanical Engineer) & Bhaskar Reddy (Management).

The story behind the company

While working on a college club project to address food insecurity in rural Kenya, the founders developed an affordable, sustainable, scalable system to grow food anywhere.

Problem statement of customers

Sustainability & scalability of agriculture to meet growing demand.

Problem solution of customers

To make affordable, high-quality fresh produce accessible to the urban masses.

Target customer Indian metropolitan city dwellers

Product stage

Patents Yes

Key competitors Urban Kisaan, Simply Fresh & Nutri fresh

Product differentiator

P.O.S. devices can keep the product alive until the end consumer purchases it, thus minimising food wastage.

Funds/Grants/Debit raised None

Target market Health-minded city dwellers





Carbon Dynamicsx Foundation

Company name Carbon Dynamicsx Foundation

Founders & team S. K. Kathiresh

Company location Tirupur, Tamilnadu.

Sector and sub-sector

Sustainability & Waste Management

Years in operations 2 years

Founders brief

S.K.Kathiresh is a B.Tech. Graduate in Textile Technology, an M.B.A. from Cardiff University, U.K. and has done his Fashion Business from London College of Fashion, London. He was running a garment unit employing more than 2000 people. The seeking to contribute to society has led him to found this startup to work in the sustainability space, starting with waste management and recycling.

Core team details & team size

The core team has seven members.

The story behind the company

The founder is looking at bringing Al-based technology to waste collection to quantify and qualify the waste.

Problem statement of customers

The problem they are trying to address is the entire waste management ecosystem, from waste collection to the final product marketing to the right market.

Problem solution of customers

The organisation's main objective is to fight climate change and promote sustainability.

Target customer

Government and bulk waste generators (e.g., hospitals, industries, apartments etc.)

Product stage

Key competitors Waste management companies

Product differentiator

Their solutions are custom-made to that city or organisation. They look beyond what's existing and try to create a better scale-able model. Also, they do spend a considerable portion of the budget on R & D.

Funds/Grants/Debit raised

No

Target market

The companies that are into sustainably manufactured produce.





De'Dzines Private Limited

Company name De'Dzines Private Limited

Brand Name De'Dzines

Founders & team Vaishali Biyani - Founder & Ankur Mehrotra -Director

Company location Kanpur, Uttar Pradesh

Sector and sub-sector Manufacturing - Recycling

Years in operations

2 years

Founders brief

A B.Sc Graduate from Rajasthan University with 14 years of working experience. Her first company was in the recruitment space for startups she founded in 2008; Dezines is her second startup which she started in 2018.

Core team details & team size

Vaishali Biyani - Founder , Ankur Mehrotra - Director Team size - 14.

The story behind the company

In 2018 the journey started when Vaishali saw tyres being used in reactors, taking out oil and polluting the environment. She created a catalogue of interior and exterior space products and started selling on amazon and now via De Dzines own website.

Problem statement of customers

Tyre burning and toxic gases in the environment

Problem solution of customers

Chairs/tables/planters/sculptures/bags from scrap tyres. They have processed 1000 tons of tyres until now and saved them from burning.

Target customer

Interior designers, Landscapers, Corporates, governments, and Individuals who spend on green products.

Product stage

MVP

Key competitors

Funds/Grants/Debit raised No

Target market

Interior designers, Landscapers, Corporates, Government & individuals who spend on green products.



Eco Orbit AI Solutions Private Limited

Company name Eco Orbit Al Solutions Private Limited

Founders & team Abhishek Gorle

Company location Hyderabad, Telangana

Sector and sub-sector Industrial Automation (Robotics)

Years in operations

1 year

Founders brief

Abhishek is M.E. in Design Engineering, BITS Pilani Hyderabad, 2017-19. B.Tech. Mechanical Engineering, Institute of Aeronautical Engineering, JNTUH, 2011-15. The founder has experience in Product Design, R&D Team, TE Connectivity, June 2019 – Feb 2021. Software Quality Analyst, NTT DATA GDS, Aug 2015 – Sep 2016.

Core team details & team size

Abhishek Gorle: Sales & Product Head, GV Sai Kumar: Machine Learning Expert, Kiran Ganji: Business Strategy & Pavan Kumar D: Product Development.

The story behind the company

In June 2020, while the founder was returning to Wagholi after a short break & work from home stint, He was shocked to see that, within three months, the roadsides of Wagholi had turned to dump yards. In early 2021, Abhishek approached a couple of MRFs to understand their pressing challenges. The single most critical problem they face day-in-day-out is waste segregation, and the current processes are non-productive and inefficient. Upon exploring the various ways to solve this problem, we concluded that a rapid inflow of technology is needed to help MRFs scale up their operations. This was when they incorporated EcoOrbit Solutions.

Problem statement of customers

To help MRFs scale up material sorting operations profitably.

Problem solution of customers

Using IoT, AI/ML & Robotics, they have built an intelligent robotics automation solution, an MVP, that can automate the waste segregation process at the MRF plants.

Target customer

Material recovery facilities that do Secondary Sorting

Product stage Prototype

Key competitors Ishitva Robotic System & Vinglab Technologies

Product differentiator

A modularized product.

Funds/Grants/Debit raised

Equity round from friends & family. ₹8.75 lakhs at ₹1 crore valuation in Aug 2021.

Target market

Indian waste sorting market is of ₹5436 crores





Elai AgriTech Private Limited

Company name Elai AgriTech Private Limited

Founders & team

Aditya Chaturvedi, Pranav Agrawal and Manish Nair.

Company location

Bengaluru, Karnataka

Sector and sub-sector

Agritech - Farm Management

Years in operations

1 year six months

Founders brief

The team has three full-time Co-founders. Aditya Chaturvedi is an engineer and business management postgraduate involved in the journey since pre-incorporation. Aditya is a problem solver with strategic thinking abilities and great strength in the team, especially when building solutions for the agri-sector surrounded by challenges across the value chain.

Pranav Agarwal is a computer science engineer who is the brain behind the Tech solution. Pranav joined Elai's journey through a hackathon in college. He is someone who spends considerable time on the field interacting with farmers to build the best product that solves their problems.

Manish Nair is an engineer and he started his career as a marketing and sales professional for a global manufacturing company. Manish's experience with the rural communities helps drive on-ground interactions for every activity with farmers and the field team.

Core team details & team size

The core team is of 5 members.

The story behind the company

Elai came into being while Aditya was working on a Hydroponics Photovoltaic project at a solar plant in Bidar, Karnataka. They attempted to utilise the land under the solar panels of ground-mounted projects. As the work was happening within a rural ecosystem, farmers working part-time on the project showed great interest in the Tech. That's how the potential and more significant use case for the Tech we had built came to light.

Problem statement of customers

Poor access of affordable credit to small and marginal farmers throughout the crop cycle.

Problem solution of customers

To provide small and marginal farmers with Tech to establish creditworthiness and access affordable credit for purchasing agri-inputs, staggered working capital loans and warehouse finance.

Target customer

Small & marginal farmers, Input Retailers.

Product stage

MVP

Key competitors

Jai Kisaan, Dvara-eRegistry, FarMart and Agrifi.

Product differentiator

The use of remote sensing enabled AI Tech and psychometric analysis to establish the credit worthiness of farmers to their best ability and willingness to pay.

Funds/Grants/Debit raised

Raised a total sum of \gtrless 1.2 crores from a venture builder firm and an HNI.

Target market

Currently targeting small and marginal farmers from Maharashtra in Pune and Ahmednagar region.





Elemantra Enterprises Pvt. Ltd.

Company name Elemantra Enterprises Pvt. Ltd.

Founders & team Arun Kumar, Soumya A. Kumar

Company location

Hyderabad

Sector and sub-sector

Sanitation, Hygiene, & Waste-Management. Sub-Sector - menstrual hygiene, domestic hazardous waste, food waste management and Soil Enrichment

Years in operations

9 years

Founders brief

Arun Kumar Post Graduate in Economics. Over 35 years of Corporate Career experience in Business development, operations, sales, marketing, Product Management, Innovation, Product Development, Production, Sales & Marketing.

Soumya A. Kumar

Post Graduate in Economics, Education Over 35 years of Corporate Career experience in General Administration in the Insurance Sector, Project Insurance Consultant for Tata Motors Accounts, Procurement, HR, Relationship Building, and Compliances.

Core team details & team size

As above (Two Persons as of now)

The story behind the company

Arun Kumar (the founder) is visually impaired with a condition called Macular Degeneration which has no cure in the scientific/medical world. But he has adapted to a near regular work-life, despite this handicap and has put in over 35 years of work in various capacities in the corporate world. In 2013, after the last corporate assignment with Reliance Big Pictures, he ventured into this social enterprise with the sole mission to educate, empower and enable individuals like him to have a better life.

Problem statement of customers

To provide a cost-efficient, effective, safe, and environment-friendly solution to tackle the indiscriminate disposal of used sanitary products.

Problem solution of customers

They are providing a cost-efficient, effective, safe, and environment-friendly solution to tackle the indiscriminate disposal of used sanitary products, the volume of which, in their ever-growing society, is only multiplying by leaps and bounds daily.

Target customer

The entire society

Product stage

Prototype

Key competitors

HLL Lifecare, Visaga Industries, Virgo; over 40 of them

Product differentiator

Mainly Legal and pollution board compliances, Safety of the users and the environment, cost of operating the machine, on-site after-sales service.

Funds/Grants/Debit raised

Own funds. Indian Bank CC limit and term loan of approx. ₹18 Lakhs together.

Target market

Educational sector, Corporate sector, rural and semi-urban medical facilities wherever there are a large number of women.





Eunoia Innovations Private Limited

Company name

Eunoia Innovations Private Limited

Founders & team

Alankar Achadian, Aashish Sharma, Anjali Verma and Deepak Cheran.

Company location

Hyderabad, Telangana.

Sector and sub-sector

Product development, manufacturing and production, maritime industry, and automobile industry.

Years in operations

1 year

Founders brief

Alankar Achadian - Managing Director & CEO

Alankar Achadian is a mechanical engineer graduate of class 2021 from Hyderabad Institute of Technology and Management - HITAM. He has experience in design, product development and entrepreneur and leadership.

Anjali Verma - Chief Technology Officer Anjali Verma has completed her bachelor's degree in Electronics and Communication Engineering and graduated from the Hyderabad Institute of Technology and Management batch of 2021.

Deepak Cheran - Chief Naval Architect

Deepak Cheran graduated from Indian Maritime University (IMU) in Visakhapatnam with a Bachelor's degree in Naval Architecture and Ocean Engineering in 2021. In addition, he is a member of the Royal Institute of Naval Architecture (RINA) and the Institute of Marine Engineering Science and Technology (IMAREST).

Core team details & team size

Eunoia Innovations is operated by only four young professionals.

The story behind the company

It was a school kid's observation during the Swachh Bharat Abhiyan campaign, when people were cleaning the roads on the one hand and throwing trash into lakes, ponds, and water canals on the other.

Problem statement of customers

Currently, India is considered the twelfth-largest source of marine litter and is projected to become the fifth-largest by 2025. The Covid-19 outbreak has exacerbated this situation, with the pandemic demanding the use of personal protective equipment (PPE) such as suits, masks and gloves that are often discarded in unscientific ways.

Problem solution of customers

Aqua Skimmer is a water robot with great potential for cleaning water bodies.

Target customer

State Government Municipality, Tourism Department, Hotels & Resorts, Private Organisations (undertaken/ owns water bodies).

Product stage

MVP

Key competitors

N/A

Funds/Grants/Debit raised

INO

Target market

State Govt Municipal, Tourism Department, Hotels & Resorts and Private Organisations (undertaken/ owns water bodies).





Happily Ever

Company name Happily Ever

Founders & team Vamsee Akkiraju

Company location Hyderabad, Mountain View

Sector and sub-sector Emotional Well-being, Romantic Relationships

Years in operations 1 year

Founders brief The founder/CEO is Vamsee, an IIT KGP Computer Science graduate and a Psychologist at San Jose State Mental Health Institute.

Core team details & team size 7 in engineering, 4 in sales and operations

The story behind the company Her marital struggle.

Problem statement of customers Emotional distress in romantic relationships

Problem solution of customers

Giving customers a direction to heal and find peace

Target customer Customers struggling in their personal life

Product stage MVP

Key competitors $\ensuremath{\mathsf{N/A}}$

Funds/Grants/Debit raised No

Target market India





Himalayan Hemp Industries Private Limited

Company name Himalayan Hemp Industries Pvt. Ltd.

Founders & team Sonam Sodhaand and Haneesh Katnawer

Company location

Kangra, Himachal Pradesh.

Sector and sub-sector

HealthTech, Construction & AgriTech

Years in operations

2.5 years

Founders brief

Founders brief: Sonam Sodha - MBA (HR and IBM with ten years of experience in HR, project management, and operations) Haneesh Katnawer - BE (Production with 11 years of experience in project management, operations management, and research writing)

Core team details & team size

Sonam Sodha - MBA (HR and IBM with 10 years of experience in HR, project management and operations) Haneesh Katnawer - BE (Production with 11 years of experience in project management, operations management, and research writing) Dilip Kankanala - GM (Masters in Environmental Sciences and Technology with 12 years of experience in the industry) Sankara Chivakula - Hemp Engineer (PDGHSE and B. Com with 5 years experience in construction)

The story behind the company

The team started Himalayan Hemp to preserve the indigenous variety of cannabis and hemp plants while nurturing the home-equity-based concept of the "Hemp Family" of artisans, farmers, and innovators.

Product stage

Prototype

Key competitors

1) Whisper and StayFree 2) Other building companies and architectural firms.

Problem statement of customers

1) Poor menstrual hygiene and awareness, lack of alternate cash crops and models for rural farmers, innovators, and artisans, and environmental pollution of landfills and waterways with disposable sanitary pads.

2) Cement construction workers face lung-based issues due to constant cement dust. Moreover, people living in cement houses can face knee-joint pain and foot pain due to walking on the cement floors, and residues from the dry cement can have some level of toxic skin irritants.

3) Lack of efficient & sustainable substitute for cement.

Problem solution of customers

Sanitary pad: Their idea is based upon reusability, where they want to reduce the sanitary pads' footprint from the world.

Hemp building: Their product is unique in design, method, materials, and expansion model. Construction designs are becoming more subjective these days, ensuring their strategy is unique.

Target customer

School girls and rural women. New mothers (high absorbency of the pad). Women from Scandinavian countries, The USA, Taiwan & Japan (assessment of demand).

For Hemp building - Resort and cafe owners, architecture companies.

Product differentiator

Funding, mentorship, product customers, and networking

Funds/Grants/Debit raised

Himalayan Hemp raised 5,00,00/- from NIAM, Jaipur (RABI RKVY) grant in 2019-2020 for Product Development. They raised 3,65,000/- from Amrita TBI, Kollam (Nidhi EIR) budget in 2021-2022 for Sustenance Allowance. Himalayan Hemp grew 49,20,000/- from BIRAC grant in the year 2021-2022 for Product Development.

Target market

Same as target customers.



Jivoule Biofuels Private Limited

Company name Jivoule Biofuels Private Limited

Founders & team Chandrashekar Nandigama

Company location Hyderabad, Telangana

Sector and sub-sector Renewable energy

Years in operations 2 years

Founders brief

The founder is an M.S Chemical Engineer from the USA, Six Sigma Master Belt Certified, Project Management Certified, and has extensive work experience in Manufacturing and Quality Management.

Core team details & team size

3 Core team is a mix of Chemical engineers, Mechanical engineers, and Computers Engineer and has waste-to-energy domain expertise.

The story behind the company

Four years ago, the founder's son, who is four years old, asked why a car emits thick smog that is causing air pollution and damaging the environment. The founder couldn't answer him correctly but decided to be part of the solution and hence picked the biomethane project to reduce air pollution caused by fossil fuels and damage to the environment and climate for the next generation.

Problem statement of customers

Indian urban cities generate around 60 MMT of solid waste annually, and approximately 50% of it is wet waste, or food waste is generated and collected from households, HORECA, malls, bulk generators, market yards, retail chains, and food & Agri processing industries.

Problem solution of customers

The key to tackling the problem of food waste management at scale across pan India is to produce bioenergy, i.e. biomethane or CBG, by applying CSTR anaerobic digestion technology to digest food waste in a large digester to generate biogas.

Target customer

OMCs, CGDs, and industries they have acquired as their first customer in Hyderabad, a CGD company called Bhagyanagar Gas Ltd.

Product stage

MVP

Key competitors

Carbon Masters, Nextgen technologies, Grassroots, etc.

Product differentiator

Multiple feedstock technology , digital technologies adoption, blockchain technology and biomethanation.

Funds/Grants/Debit raised

Yes

Target market

TAM- 140 MMT of Natural Gas or ₹6.4 lakh crores SAM- 15 MMT of CBG or ₹69,000 crores SOM in next three years - 10,000 Tonnes per Annum or ₹100 crores across pan India.



neerovel

Neerovel Innovations Private Limited

Company name Neerovel Innovations Private Limited

Founders & team Subrahmanyam K and Amarnath J

Company location Goa

Sector and sub-sector Sustainable cities and communities - IoT in the

Years in operations

2 years

Founders brief

Subrahmanyam K - Co-Founder, Electronics Engineer with 7+ Years of experience. Created Automatic Cooking Robot & patented; experienced in making 3D printers. Amarnath J, Co-Founder, Computer Science Engineer, Executive MBA - IIM-Calcutta. 8+ years in marketing.

Core team details & team size

Team Size: 2 - Co-Founder 1: Subrahmanyam K & Co-Founder 2: Amarnath J

The story behind the company

The team used to live in a three-storied building whose owner is 85 years of age. He used to climb up daily to check the water levels to control the utilisation (due to water supply) and prevent overflows when the motor was on. The team has developed and installed a wired product to mitigate this issue. They started selling the same thing to different customers. This made them embark on a journey to build a water-conscious society through their products.

Problem statement of customers

Domestic water management and overflows/leaks from the tank.

Problem solution of customers

An intelligent "Fit & Forget" kind of water management product creates a water-conscious society.

Target customer

B-C: Individual houses, Villas. B-B-C: Builders B-B: Water tank companies, Automation companies.

Product stage

Prototype

Key competitors

Sintex and TankBolt

Product differentiator

Wireless, better visibility, user cost-saving, intelligent alerts on leaks or usage, easy access and usage statistics, controls motor/valves from the mobile app and enables water-related product access and services.

Funds/Grants/Debit raised

Bootstrapped

Target market

Individual houses and villas in tier -1&2 cities. B-B-C: Builders.





Onelement Energy Private Limited

Company name Onelement Energy Private Limited

Founders & team Akhilesh Samboju

Company location Hyderabad

Sector and sub-sector Power/Energy(Renewables)

Years in operations 6 years

Founders brief

BS in Mechanical Engineering. Milwaukee School of Engineering. (2010-2015).Founder /Director: Onelement energy. Director: Ignito energy. (2016-2021).

Core team details & team size

Akhilesh, Anjan Kumar, Bharat.A, Srivatsan kaustubhan, Jaydev Chakrabarti, Rajgopal and Shailendra Tiwari.

The story behind the company

With a vision to contribute to a sustainable future and a quest for alternative energy and energy storage, the team realised the potential of Hydrogen and its energy flexibility. Discovered a procedure to generate clean energy using Hydrogen and worked on energy storage methodology using Hydrogen through renewables. Problem statement of customers

Off-grid and backup power applications & a need for alternative energy storage.

Target customer Telecom industry, Residential & Commercial Industry

Product stage

Key competitors Bloom Energy & Ballards

Product differentiator

Existing Fuel cell technology works excellent for the Automobile industry but fails to reach out to off-grid applications.

Funds/Grants/Debit raised

None bootstrapped so far.

Target market

Telecom, residential communities & Solar Industry.



Period Health Care

Period Health Care Private Limited

Company name Period Health Care Private Limited

Founders & team Rohini Naidu

Company location Gachibowli, Hyderabad.

Sector and sub-sector Women's Health

Years in operations 1 year

Founders brief

Master's Degree in English Language & Literature Master's Degree in Education from University College for Women, Hyderabad. Certified Dale Carnegie Trainer in Soft Skills

Core team details & team size

The core team is of 2 members.

The story behind the company

As Ms. Rohini was conversing with students, she realised that most hesitated in conveying to people that they were on period. The reason was that it was a cultural taboo in India. She also realised that most of them were using traditional pads, which are harmful to women's health and that not everyone was even aware of it. Problem statement of customers

Sustainable menstrual health products for the sake of our environment.

Problem solution of customers Ensuring women's reproductive health and hygiene

Target customer Women

Product stage MVP

Key competitors Pee Safe

Product differentiator The first brand with a social cause to eradicate Period Poverty.

Funds/Grants/Debit raised No

Target market Women & girls





Company name Sup-EcoApp

Founders & team Yash Reddy & Co-Founder: Bora Siva Sankar

Company location Vijayawada

Sector and sub-sector Climate action, sustainable cities and communities.

Years in operations 3 years

Founders brief

Yash Reddy(Founder) Masters in Energy Efficiency and Sustainability. Three years at Green Building Consulting.

Bora Siva Sankar(Co-Founder) Civil Engineering, IIIT Basar with three years of startup experience. He is involved in creative design, product design, driving the tech team to meet the business requirement, testing, and strategic plans for building partners, users, and customers.

Core team details & team size

Yash - Founder&CEO, RMIT Melbourne Shiva - Cofounder & PL, IIIT Basar Santhosh - Developer & TL, IIIT Basar Lucky - Developer, IIIT Basar Jothiga - SuP Club Sensei, Hansraj Delhi University Chintu - Developer (Part-time), IIIT Basar Ashok - Developer (Part-time), IIIT Basar.

The story behind the company

Started SuP, an initiative for schools and institutions to implement health and sustainable well-being for school kids. A holistic model addresses indoor air pollution and lowers the institution's carbon emissions. **Problem statement of customers** Sustainable menstrual health products for the sake of our environment

Problem solution of customers Ensuring women's reproductive health

Target customer Women

Product stage MVP

Key competitors Pee Safe

Product differentiator The first brand with a social cause to eradicate period poverty

Funds/Grants/Debit raised No

Target market Women & girls





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