Department of
Science & Technology
Government of India

सत्यमेव जयते

Azadi Ka Amrit Mahotsav

DST Startup UTSAV

75

PROMISING STARTUPS

NIDHI-SEED SUPPORT PROGRAM

Department of
Science & Technology
Government of India

Azadi Ka Amrit Mahotsav

DST Startup UTSAV

75

PROMISING STARTUPS

NIDHI-SEED SUPPORT PROGRAM

Published by

VIGYAN PRASAR
1st Floor, Block-II, Technology Bhavan
New Delhi-110016
Phone: +91 11-26511207
E-mail: info@vigyanprasar.gov.in
Website: https://www.vigyanprasar.gov.in

Copyright © 2022 by Vigyan Prasar
All rights reserved

75 Promising Startups
NIDHI-Seed Support Program

Concept & Guidance	:	Anita Gupta, *Adviser & Head-NSTEDB, DST*
Editor-in-Chief	:	Nakul Parashar, *Director, Vigyan Prasar*
Editor	:	Kinkini Dasgupta Misra, *Senior Scientist, Vigyan Prasar*
Content & Production Coordination	:	Sapana Kaushik, *Scientist, NSTEDB-DST*
Content & Production Management	:	Prabhat Ranjan, *Scientist, Vigyan Prasar*
Editorial Assistance	:	Subodh Kumar, *Scientist, Vigyan Prasar* Sirat Sandil, *Sr Project Officer, Vigyan Prasar* Neelam Pandey, *Jr Project Associate, Vigyan Prasar*
Coordination Assistance	:	Renuka Sharma, *Program Support Professional, NSTEDB-DST* Kajal, *Data Entry Operator, NSTEDB-DST*

Design & Printing: Angkor Publishers (P) Ltd., Email: angkor@rediffmail.com

ISBN: 978-81-7480-390-0

Disclaimer

The data, information & other program details contained in this document have been sourced, analysed and reproduced from implementation partners (DST Supported Incubators) & material published in the public domain.

Efforts have been made to reflect the nature and impact of the entrepreneurial ecosystem established through the efforts of DST. Data & information furnished herein are indicative only and may be used for any subsequent studies with due corroboration from the original sources of the information cited herein. Neither DST nor Implementation Partners can be held responsible for any and all the claims related to the accuracy or reliability of the same. Neither DST nor DST supported incubators shall be held liable for any loss/damage caused by any error, omissions (whether or not they have resulted from negligence, accident or other causes) or for any other consequences arising thereof.

This compendium is for indicative purpose only and does not necessarily represent the official views or policies of the department. No part of the compendium constitutes or claims to constitute the part of the standard, specification or regulation. Request for permission to reproduce any part of the document may be sent to DST.

डॉ0 जितेन्द्र सिंह
राज्य मंत्री (स्वतंत्र प्रभार),
विज्ञान एवं प्रौद्योगिकी मंत्रालय;
राज्य मंत्री (स्वतंत्र प्रभार) पृथ्वी विज्ञान मंत्रालय;
राज्य मंत्री, प्रधान मंत्री कार्यालय;
राज्य मंत्री कार्मिक, लोक शिकायत एवं पेंशन मंत्रालय;
राज्य मंत्री परमाणु ऊर्जा विभाग तथा
राज्य मंत्री अंतरिक्ष विभाग
भारत सरकार

सत्यमेव जयते

Dr. JITENDRA SINGH
Minister of State (Independent Charge)
of the Ministry of Science and Technology;
Minister of State (Independent Charge)
of of the Ministry of Earth Sciences;
Minister of State in the Prime Minister's Office;
Minister of State in the ministry of Personnel,
Public Grievances and Pensions;
Minister of State in the Department of Atomic Energy and
Minister of State in the Department of Space
Government of India

MESSAGE

Startup India Initiative announced by Hon'ble Prime Minister in the year 2015, has set a new vision for the Indian economy to unlock people's entrepreneurial potential in a conducive environment. Today, India is the third largest startup ecosystem globally which has grown from strength to strength in the last few years.

The Department of Science and Technology (DST) has contributed significantly in shaping up the startup ecosystem in the country through creation of institutional structures that fosters technology-based entrepreneurship, such as the Technology Business Incubators (TBIs). The National Initiative for Developing and Hamessing Innovations (NIDHI), an umbrella program, launched by DST in 2016 plugs key gaps in the idea to market value chain. The NIDHI program implemented by Incubators, offer start to scaleup support through array of programs namely EIR (Entrepreneur in Residence) (EIR), Promoting and Accelerating Young and Aspiring innovators and startups (PRAYAS) and Seed Support Program (SSP). In last five years, these programs have generated notable outcomes and impact.

I congratulate the Team of DST for their dedicated efforts and contribution in bringing out the compendium of 75 impactful and promising startups featured under various programs of NIDHI to commemorate Azadi ka Amrit Mahotsav. I also compliment the strong network of DST supported incubators and its nurtured startups, whose noteworthy contribution on innovation and entrepreneurship will not only go a long way in realizing the mission of Atmanirbhar Bharat but also in the nation building.

(Dr. Jitendra Singh)
MBBS (Stanley, Chennai)
MD Medicine, Fellowship (AIIMS, NDL)
MNAMS Diabetes & Endocrinology

Anusandhan Bhawan, 2, Rafi Marg
New Delhi-110001
Tel. : 011-23316766, 23714230,
Fax. : 011-23316745

South Block, New Delhi-110011
Tel. : 011-23010191 Fax : 011-23017931
North Block, New Delhi-110001
Tel. : 011-23092475 Fax : 011-23092716

सत्यमेव जयते

डॉ. एस. चंद्रशेखर
Dr. S. Chandrasekhar

सचिव
भारत सरकार
विज्ञान एवं प्रौद्योगिकी मंत्रालय
विज्ञान एवं प्रौद्योगिकी विभाग
Secretary
Government of India
Ministry of Science and Technology
Department of science and Technology

FOREWORD

01 August, 2022.

Department of Science and Technology (DST) has been playing a significant role in aiding the development of early-stage startups through the adoption of progressive programs and development of pertinent infrastructure. Its contribution in fostering and nurturing the fledgling start-up ecosystem steered through strong network of Incubators is noteworthy both in terms of efforts and impact. The last five years have been fruitful in bringing speed and scale in catalysing programs for the national initiative of Startup India -Standup India. DST introduced a flagship initiative NIDHI- National Initiative for Developing and Harnessing Innovations to influence the Indian startup ecosystem even deeper.

During last few years, concerted efforts of DST has resulted in better outreach, outcomes and impact. It is now evident that DST's initiatives have created an enabling environment for startups and also brought in the multiplier effect through global recognition to the entrepreneurs nurtured and supported through this ecosystem. It is heartening to see that in addition to the incubation support, thousands of innovators and startups have been supported in varied technology domains aligned with key national initiatives under NIDHI-EIR, NIDHI-PRAYAS, and NIDHI Seed Support Program. These programs have resulted in accelerated growth in the number of startups supported, employment, intellectual property generated, and wealth created.

I extend my best wishes to Team of NSTEDB, DST along with Vigyan Prasar, SINE IIT Bombay and Venture Center, Pune in putting up sincere efforts in bringing publication on 75 promising Startups supported under various components of NIDHI Program.

(S. Chandrasekhar)

Technology Bhavan, New Mehrauli Road, New Delhi - 110016
Tel.: 0091 11 26511439 / 26510068 | Fax: 00 91 11 26863847 | e-mail: dstsec@nic.in | website: www.dst.gov.in

डा. अनिता गुप्ता
सलाहकार एवं प्रमुख, इनोवेशन एवं
इन्ट्रेप्रन्योरशिप (एनएसटीईडीबी)

Dr. Anita Gupta
Advisor & Head, Innovation and
Entrepreneruship (NSTEDB)*

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

आज़ादी का अमृत महोत्सव

भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
विज्ञान और प्रौद्योगिकी विभाग
टेक्नोलॉजी भवन, नया महरौली मार्ग, नई दिल्ली–110016

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF SCIENCE & TECHNOLOGY
Technology Bhavan, New Mehrauli Road,
New Delhi - 110016 (India)

PREFACE

Startups are the catalyst of change for any economy. The Startup India program has fuelled the ecosystem with strong policy and program support by the government. Today, we see the presence of strong technology and science-based startups across various technology sectors contributing to the nation's mission of self-reliance.

The National Science and Technology Entrepreneurship Development Board (NSTEDB) of DST has been dynamically adapting its approaches and offerings to suit the national aspiration and needs to foster Science, Technology, and Innovation based entrepreneurship. The uniqueness in NSTEDB's approach lies in supporting a strong network of incubators in higher learning institutes to benefit fledgling startups.

NSTEDB has taken rapid strides in building the technology-enabled S&T ecosystem in the country, by launching a Program NIDHI (National Initiative of Developing and Harnessing Innovation) in 2016. NIDHI's array of value-added program offers funding support at various stages of product development, including prototype, market validation, enhancing readiness for market and investment. In last five years, the NIDHI program has yielded significant outcomes and impact.

Celebrating Azadi Ka Amrit Mahotsav to mark 75 years of our independence, a compendium featuring 75 promising and impactful Startups as beneficiary of NIDHI Seed Support Program, is being brought out by DST. My heartiest congratulations to the wonderful effort made by these startups in contributing towards Atmanirbhar Bharat Mission through their innovative products and solutions. I would like to compliment Team NSTEDB and the Incubators implementing Seed Support Program for their efforts and commitment in making the program successful.

(Anita Gupta)

Tele.: +91-11-26523977, 26590213 E-mail: anigupra@nic.in
Website: www.dst.gov.in / www.nstedb.com
* National Science & Technology Entrepreneurship Development Board (NSTEDB)

NIDHI - Seed Support Program

Department of Science and Technology (DST) has been the pioneer in supporting the innovation and entrepreneurship ecosystem in the country. In order to address the critical gap in the availability of initial funding for technology-based startups, DST introduced Seed Support System in 2008. This value addition in the offering of Technology Business Incubators (TBIs) resulted in attracting a promising pipeline of incubatees.

After PM's call for Startup India in 2015, **National Initiative for Developing and Harnessing Innovations (NIDHI),** an umbrella program for supporting young innovators who are pursuing their dream of ideas to startups, was launched in 2016. Seed Support scheme was also revamped as **NIDHI - Seed Support Program (NIDHI-SSP),** and the scale at which support was provided to TBIs was increased five times.

NIDHI-SSP is aimed at providing timely seed support to the deserving incubatee startups with promising ideas, innovations and technologies within an incubator, enabling them to take their venture to the next level and facilitate their success in the marketplace. This would enable some of these incubated startups with innovative ideas/technologies to graduate to a level where they can raise investments from angel/venture capitalists or reach a position to seek loans from commercial banks /financial institutions. We have already supported more than 460 startups under this program.

In this compendium, we attempt to showcase the most promising 75 seed-supported startups since the inception of this program. We have shortlisted these startups based on various criteria like innovation content, critical problem solved, technology readiness level, investment raised, market traction etc. Seed support is essential in their various stages to enhance their market readiness. It is evident from the study of these 75 startups that each rupee invested as seed support resulted in 10 times their external funding. Each startup has generated approximately 30 employment.

We wish to congratulate all the implementing TBIs of seed support programs and the startups for their immense contribution to building the innovation and startup ecosystem in the country.

Dr. Sapana Kaushik
Scientist E, DST
Program Officer, NIDHI-SSP

Overview of Seed Support Program

Objective

The key objective of the NIDHI- SEED SUPPORT PROGRAM (NIDHI-SSP) is to ensure the timely availability of seed support to the deserving incubated startups within an incubator, enabling them to take their venture to the next level and facilitate their success in the marketplace. The detailed program guidelines are available at https://nstedb.com/NIDHI-Seed-Support-Program-Guidelines.htm

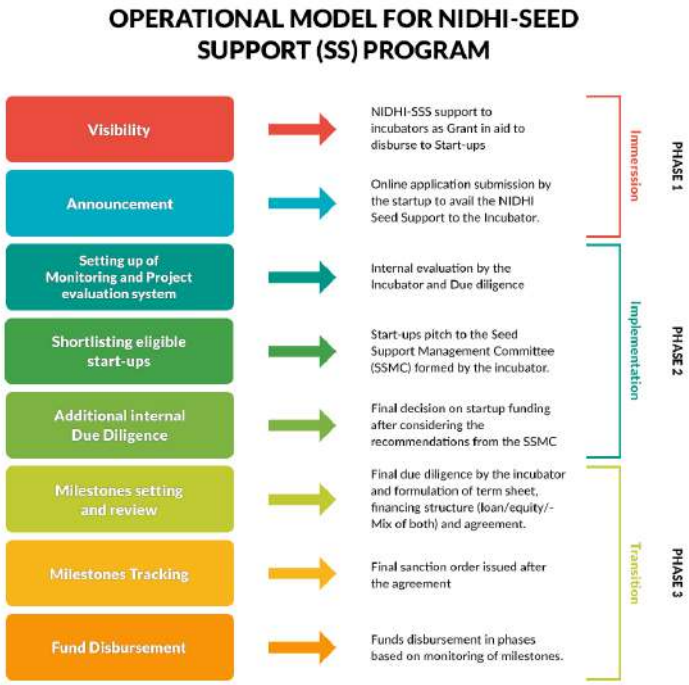
Quantum and Disbursement of NIDHI-SSP Funds

- The maximum financial support to be made available to an incubator would be Rs. 1000 lakhs.
- The grant would be released in 2-5 rounds with a max of Rs. 500 lakhs per round.
- The support/round needs to be utilized in 2-3 years.
- The Seed Support size for the startups is capped at Rs. 100 lakhs per startup (Rs. 100 lakhs considered only in exceptional cases).
- Mode of financing/investing: Soft Loan, Equity, or Equity-linked instruments financing/investing.

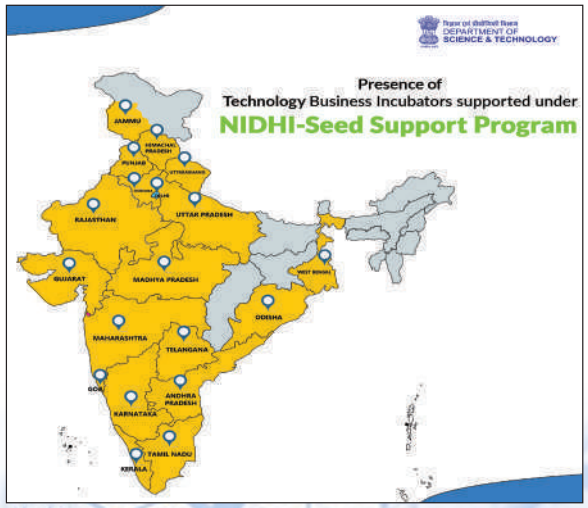
Broad Areas and Items of Utilization of Seed Support by the Startup

- Technology development and de-risking activities
- Scale-up
- Market entry
- Product Development
- Mentoring
- Seeking consultancy
- IPR issues and all such startup activities

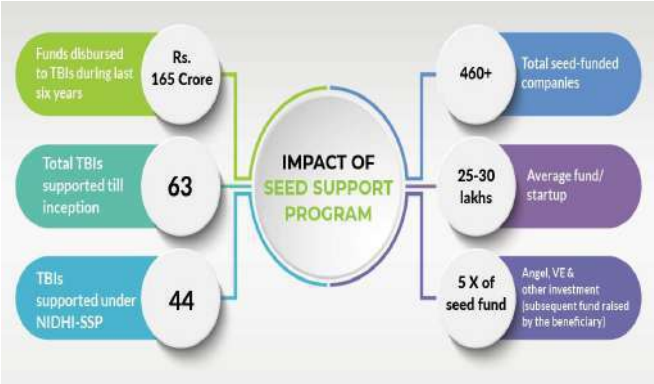
Operational Model for NIDHI-Seed Support Program



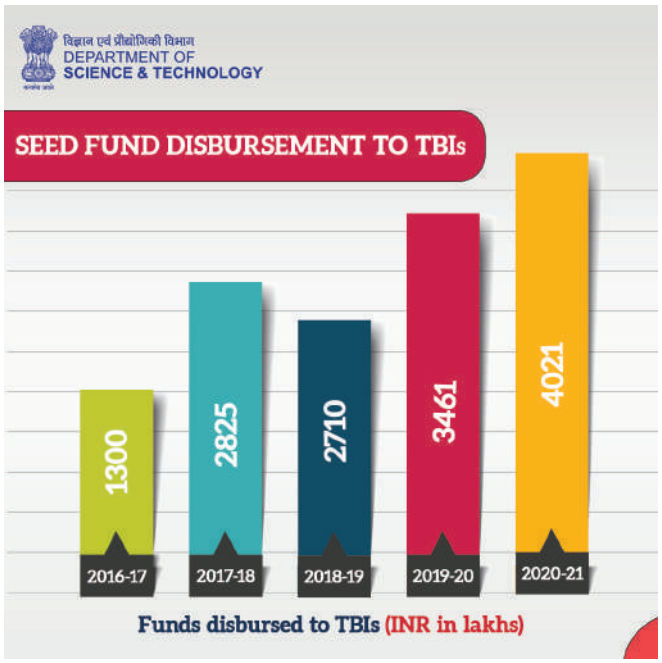
Presence of TBIs supported under NIDHI – Seed Support Program



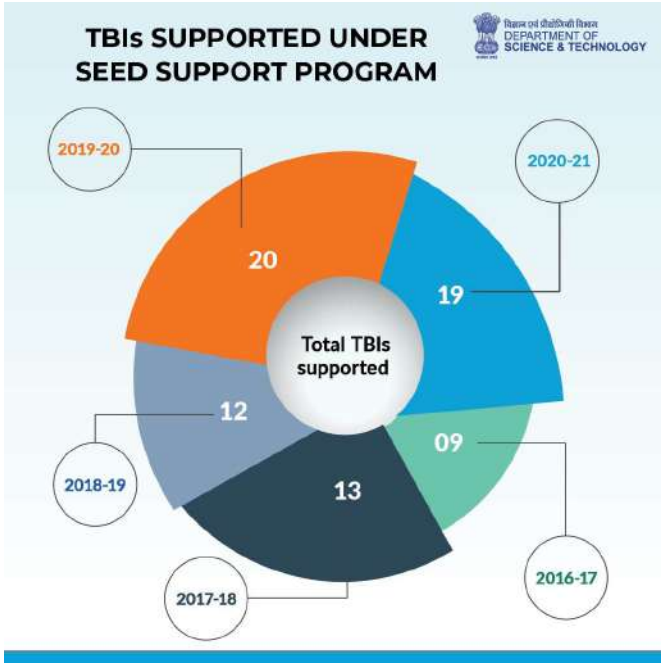
Impact of Seed Support Program



Seed Fund Disbursement to TBIs



TBIs Supported Under Seed Support Program



Contents

Startup Sector Name	Page No.
Agriculture and Food Technology	1
Energy	11
Finance and Education Technology	17
Healthcare and Medical Devices	27
Information Technology	51
Manufacturing Technology	65
Mobility and e-Mobility	71
Waste Management	87

AGRICULTURE
&
FOOD TECHNOLOGY

Startup Name
New Leaf Dynamic Technologies Pvt Ltd., Delhi
SNL Innovations Pvt Ltd., Jaipur
Farms2Fork Technologies Pvt Ltd., Bengaluru
Flybird Farm Innovations, Bengaluru
Delmos Research Pvt Ltd., Pune
Wide Mobility Mechatronics Pvt Ltd., Hubballi
KlonecAutomation Systems Pvt Ltd., Bengaluru

New Leaf Dynamic Technologies Pvt Ltd.

Delhi https://newleafdynamic.com/

Product - GREENCHILL

Problem Addressed - The product GreenCHILL solves the issue of Post-Harvest Losses (PHL) in the Indian horticulture sector by enabling maximum access to cold storage and hence increases farmers' income by enabling them to sell their products in high demand time.

Product details

Description **-** A 15 MT (3.5 TR [ton of refrigeration]) cold storage (GreenCHILL) system fuelled by biomass that can run at off-grid geographies at a disruptively affordable price. It consumes less than 100 kg of biomass a day, has minimal moving parts, and no compressor, and improves the reliability and life of the product. It can be customized to include 10 to 30 MT of storage with the option of pre-cooling and multi-crop compartments.

Application **-** New Leaf Dynamic has developed a refrigeration system, 'GreenCHILL', powered by biomass or farm waste. It uses advanced materials and processes patented by New Leaf to generate refrigeration from heat without using grid power or diesel. It provides refrigeration for fruit, vegetables, flowers, and milk at the village or farm level. This allows farmers to store their produce until market demand and price increase, enabling them to earn more in an environmentally sustainable manner.

Value Proposition

- The cold storage system is fuelled by biomass and can run at off-grid geographies at an affordable price by consuming less than 100 kg of biomass daily
- The cold storage does not include a compressor and has minimal moving parts, which improves the life and reliability of the product
- It has the option of pre-cooling and a multi-crop compartment

Achievements

Awards: FICCI Nurturing Agri Innovation Awards finalist; National Bioentrepreneurship Award finalist, CCAMP; Winner Best Start-up-Animal Husbandry Start-up Challenge 2020

End users - Farmers/Cultivators

Founders - Anurag Agarwal
Akash Agarwal

Technology Readiness Level (TRL) - 9

Intellectual Property - 2 Patents granted

Incubated at

Social Alpha, Delhi
www.socialalpha.org
info@socialalpha.org

SNL Innovations Pvt Ltd., Jaipur

https://www.innofarms.co.in/

Product - INNOFARMS (SNL Innovations)

Problem Addressed - Food wastage at the farm gate is one of the biggest problems of post-harvest management in India. Along with a good supply chain and storage, processing can eliminate the problem of wastage. High capital cost has limited the adoption of processing in the country.

Product details

Description **-** Mini fruits and vegetable aseptic processing can reduce the wastage at the farm gate. A small unit developed by SNL Innovations Pvt Ltd. can also be made mobile, thus increasing capital utilization. Farm gate processing reduces wastage, increases farmers' income, and increases penetration of processing in the country.

Application **-** Small-scale aseptic processing plant

Value Proposition – The processing plant is a small-scale set-up enabling farm gate intervention. It provides sophisticated quality at a low cost and can be made mobile.

Achievements

- Sold 6 units and received the order for an additional 3 units
- Domestic presence
- Growth of over 7 times year-over-year (YoY)
- Received external investment of Rs. 1 crore from Angel round in 2020

End users– Farmers, Farmer Producer Companies (FPCs), Co-operatives

Founders - Sudhanshu Gupta
Dr Liza Gupta

Technology Readiness Level (TRL) - 9

Intellectual Property - Filed 3 patents and registered 1 trademark

Incubated at

CIIE Regional Innovation Foundation, Ahmedabad
https://www.startupoasis.in/
chintan@startupoasis.in

Farms2Fork Technologies Pvt Ltd., Bengaluru

www.cultyvate.com

Product - AUTOMATED SMART IRRIGATION AND SMART IRRIGATION ADVISORY

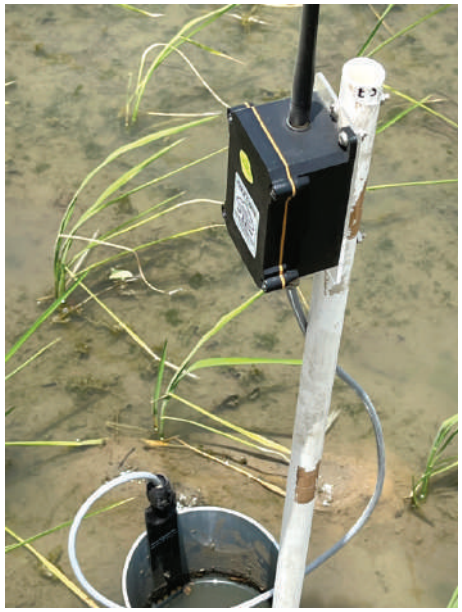
Problem Addressed - Paddy farmer uses 2 crore liters of water per Ha/season, whereas paddy can be grown by using up to 50% less water. cultYvate has developed a patent-pending Smart Irrigation Advisory using the Internet of Things (IoT), remote sensing, and artificial intelligence (AI) to keep measuring the water level 2 inches above the ground and 6 inches below the ground in real-time, advising farmers to start/stop based on the crop water demands.

Product details

Description **-** IoT sensors placed in the field will check the water level on an hourly basis. Two sensing points are placed above the ground and two below the ground. The farmer gets a message when the water level touches the first sensing point below the ground. A follow-up call gets initiated if no action is taken before the water level depletes to the next level. Once the irrigation is started, the farmer receives a call to stop irrigation when the water touches the first sensing point above the ground, and a follow-up call is initiated if the farmer does not take any action within the stipulated time.

Achievements

- Raised pre-series fund and now expanding in north India
- Integrating Carbon Credits through reduction in Green House Gases (GHGs) emissions
- IoT-enabled smart irrigation advisory is being deployed for Kharif 2022 in about 4500 acres of Paddy with 650 Alternate Wetting and Drying (AWD) sensors in the regions of Punjab and Haryana
- Domestic presence in Karnataka, Maharashtra, Punjab, Haryana, and international in Oman



Founder - Mallesh Tigali

Incubated at

NSRCEL.IIMB (IIMBI), Bengaluru
https://www.nsrcel.org/
nsrcel@iimb.ac.in

Flybird Farm Innovations, Bengaluru

www.flybirdinnovations.com

Product - SIRI **-** An automated precision irrigation and fertigation controller

Problem Addressed - Improvement of crops and water conservation

Product details

Description **-** This is a high-end product from FlyBird aimed at next-level farmers and corporate firms engaged in farming, wherein irrigation and fertigation will be controlled through mobiles using Global System for Mobile (GSM) technology, and all irrigation and fertigation data will be available to customers in graphical form.

Application- Siri determines how much and when to irrigate your field/greenhouses based on soil moisture, temperature, and humidity levels. It is so smart that it will postpone irrigation if it is raining. It can automate fertigation needs by independently controlling up to 5 tanks. Siri comes with multiple options for add-on modules and sensors and can be controlled remotely through the Siri Link web/mobile interface. Siri can also be customized to be affordable for the marginal farmer and scaled up to manage large corporate farms.

Value Proposition - Siri helps in viewing the history of irrigation in a graphical display, performing data analytics of past irrigation, remotely controlling and monitoring irrigation/fertigation/fogging/misting, and conducting precise planning for the future.

Achievements

- Domestic and international presence
- Growth of 30%
- External investment of Rs. 60 lakhs
- Generated revenue of Rs. 8 crores

End users - Farmer-Producer Organisations (FPOs), Farmers, and Urban & Commercial users

Founders- Satish KS
Manjunath KS

Technology Readiness Level (TRL) - 9

—

Incubated at

a-IDEA, ICAR-NAARM, Hyderabad
www.aidea.naarm.org.in
ceo.aidea@naarm.in

Delmos Research Pvt Ltd., Pune

www.delmosresearch.com

Product - DELSTRIPS

Problem Addressed - The quality of milk is noticeably below acceptable standards. According to the Food Safety and Standards Authority of India (FSSAI) survey, 68% of milk in India is adulterated, which is alarmingly high. Milk adulterated with urea, caustic soda, and formalin causes gastroenteritis, and the long-term effects of adulterated milk are far more severe.

Product details

Description **-** Delmos Research Pvt Ltd. is addressing the critical issue of adulterated milk by providing dELStrips. The product is easy to use, quick, and very sensitive. It is safe, requires very less sample for testing, and does not require additional skills for usage.

Application **-** The product "dELstrips-Reagent Strips for Detection of Adulteration in Milk" is so easy to use that even a child or a mother at home could use it to ensure that the milk is safe. It will empower the common man with a tool to test their milk at home without the need for any technical expertise, laboratory set-up, or other facilities. It involves a simple two-step process: dipping the strip in milk and observing the change in color. The product has the potential to eliminate the adulteration of milk from India.

Value Proposition - The product is capable of eliminating adulteration.

Achievements

- 650 B2B clients
- Export of products
- Overall Growth of 25%

End users - Dairy brands, dairy co-operatives, National Food Laboratory, and Multinational companies (MNCs)

Founders - Manoj Kumar Maurya
Babbar Singh

Technology Readiness Level (TRL) - 9

Incubated at

a-IDEA, NAARM, Hyderabad
www.aidea.naarm.org.in
ceo.aidea@naarm.in

Wide Mobility Mechatronics Pvt Ltd., Hubballi

www.widemobility.com

Product - CONRAD-G

Problem Addressed – The product helps in the identification of fruit fly-infected gherkins, enabling the export industry to export infection-free gherkins. It helps in achieving the required throughput and efficiency.

Product details

Description **–** It is a non-destructive technology that uses X-rays to identify the infections inside the gherkins. The machine is fully automated from feeding until segregation.

Value Proposition – It is a hi-tech factory viable food inspection solution indigenously built in Hubballi. It has an Agricultural and Processed Food Products Export Development Authority (APEDA) subsidy and is Atomic Energy Regulatory Board (AERB) compliant. The product has delivered market-proven consistent results.

Achievements

- 9 machines on the field
- Domestic presence
- Generated revenue of Rs. 4.08 crore

End users - Indian Gherkin Exporters Association, all gherkin pickling units.

Founders- Shekhar Basavanna
Rohini Ghatpande

Technology Readiness Level (TRL) - 9

—

Incubated at

Deshpande Startups

Foundation of Sandbox Start-ups Initiatives, Hubbali
https://www.deshpandestartups.org/

KlonecAutomation Systems Pvt Ltd., Bengaluru

https://krishitantra.com

Product – KLONEC AUTOMATION SYSTEMS PVT LTD.

Problem Addressed - The product addresses the issues of soil and water analysis, labor-intensive farming, water scarcity, and soil erosion.

Product details

Description **-** Klonec Automation Systems enables an Internet of Things (IoT) backed sensor Data acquisition (DAQs) which collects farm data accessible through mobile phones and cloud instantly. The same data can be interpreted by any agronomist remotely to provide advisory to the farmer in real-time.

*Application***-** Provides efficient and effective water usage solutions and reliable and cost-efficient technologies, products, and services to farmers.

Value Proposition – IoT-backed sensor DAQs collect farm data and can be accessed through mobile.

Achievements

- Investment of Rs. 8.65 crores

End users - Consumer/Enterprise.

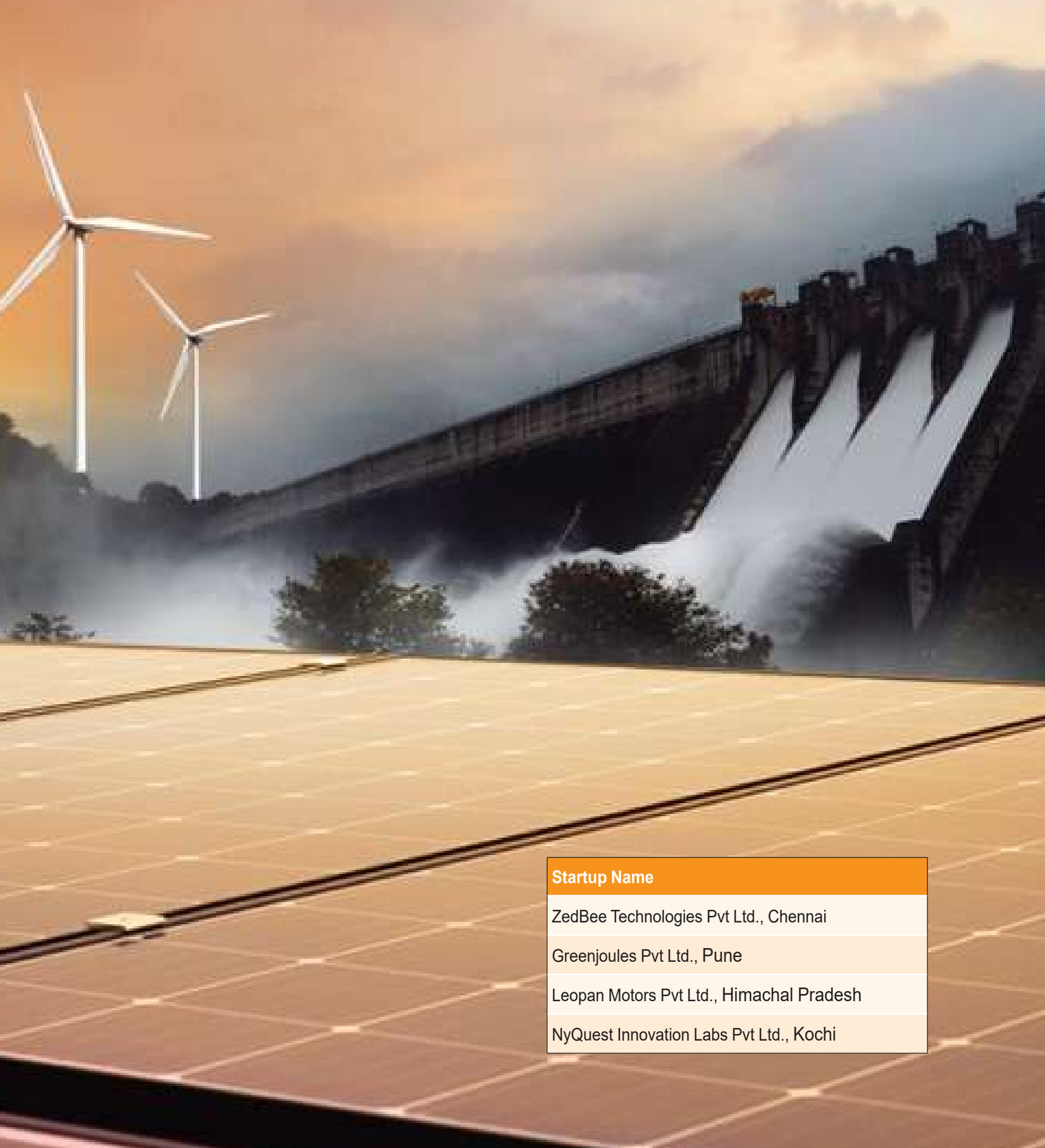
Founder - Sandeep Kondaji

Technology Readiness Level (TRL) - 9

Incubated at

IIMK LIVE
www.iimklive.org
enquiry@iimklive.org

ENERGY



Startup Name
ZedBee Technologies Pvt Ltd., Chennai
Greenjoules Pvt Ltd., Pune
Leopan Motors Pvt Ltd., Himachal Pradesh
NyQuest Innovation Labs Pvt Ltd., Kochi

ZedBee Technologies Pvt Ltd., Chennai

https://www.zedbee.in/

Product - New age Intelligent Building and Energy management solution; Hardware ranges: Data monitoring and energy optimisation; Indoor air quality devices

Problem Addressed - ZedBee decided to address the lack of efficient Building Management Systems in India with an innovative platform that links critical infrastructure equipment and one-stop data management and ensures secure and efficient operations.

Product details

Description - Zedbee offers products and solutions to increase the performance and efficiency of the entire building infrastructure. Their hardware range includes smart controllers and energy optimizers for HVAC systems. Their software includes cloud-based algorithms, dashboards, AI-driven models, and analytics for informed decision-making, enabling integrated infrastructure control and energy efficiency.

Application - Hardware devices and Software to ensure energy savings and operational efficiency of building infrastructures.

Achievements

- Market presence with major clients across India in sectors like construction and engineering, educational institutions, hospitality, banking, etc.
- Domestic presence
- External investments by Indian Angel Network (IAN), US-based Keiretsu Forum, and Stanford Angels
- Generated revenue of Rs. 5.3 crores in FY20-21 and Rs. 1.57 crores in FY21-22

End users - Corporates & industries with huge building assets, including L&T, Raheja Corp, IITM Research Park, ITC Hotels, ICICI Bank

Founder - Ankit Poddar

Technology Readiness Level (TRL) - 9

Intellectual Property– One patent granted, another filed

Incubated at

Rural Technology Business Incubator, Chennai
http://hrm.rtbi.in/
info@rtbi.in

Greenjoules Pvt Ltd., Pune

www.greenjoules.in

Product - ABHILASHA – 2ND GENERATION 'DROP-IN' BIOFUEL

Problem Addressed - Diesel is a critical fuel that has been powering vehicles, DG sets, boilers, etc., and has been a pollutant causing climate change. Greenjoules offers an alternate, environment-friendly fuel to replace diesel.

Product details

Description **-** Using agro-industrial wastes, Greenjoules has produced 2nd generation biofuel that fully replaces diesel with the same calorific value without the need to change equipment, thus reducing Green House Gases (GHGs) by 90%.

Application **-** Greenjoules Pvt Ltd. manufactures 2nd generation biofuels from agro-industrial wastes. The biofuel is used in DG Sets, boilers, and vehicles that use diesel without change of equipment at 100% replacement or as blends with diesel. Greenjoules also produce gaseous fuel and biochar.

Value Proposition - Using non-food and non-feed agro-industrial wastes, Greenjoules produces a biofuel that can fully replace diesel. The fuel is tested at IIT-Chennai, Automotive Research Association of India (ARAI), and the Indian Institute of Petroleum, Dehradun.

Achievements

- Blue chip customers like HUL, Cipla, Godrej Agrovet, Tata Adv Systems, etc
- Manufacturing plant set-up at Chakan (increasing daily capacity from 10 to 50 Kiloliters per day)
- Generated revenue of Rs. 5 crores

End users - General public

Founder - Sankaran Viraraghavan

Technology Readiness Level (TRL) - 9

—

Incubated at

SCITECH PARK

Science and Technology Park, Pune
www.scitechpark.org.in
stp@scitechpark.org.in

Leopan Motors Pvt Ltd., Himachal Pradesh

www.iitmandicatalyst.in

Product - LEOPAN MOTORS

Problem Addressed - The biggest problem with Electric vehicles is the need to constantly recharge their batteries, which increases the charging time and decreases the life span of batteries.

Product details

Description **–** The E-Rickshaw will be equipped with the Self Charging System technology that will help maintain the backup of its batteries and help in charging by 50% to 80%.

Application **-** To improve the efficiency of electric vehicles, Leopan Motors is working on the concept of Self Charging System.

Achievements

- Over 1000 ready customers
- Participated in Global Investment Meet
- Certified by iCAT and Certified state approvals in Himachal, Chandigarh, and Punjab. Setting up its unit at Pandoka, Himachal Pradesh
- Received investments of Rs. 40 lakhs under Hima Startup Yojana

End users - Existing E-Rikshaw Drivers, Industries, and Government for Smart City Projects

Founder - Vipan Dhiman

Technology Readiness Level (TRL) - 8

Incubated at

IIT Mandi CATALYST
A Technology Business Incubator

IIT Mandi Catalyst, Mandi,
Himachal Pradesh
iitmandicatalyst@gmail.com

NyQuest Innovation Labs Pvt Ltd., Kochi

www.nyquestindia.com

Product - NYQUEST INNOVATION LABS

Problem Addressed - Solar energy requires a lot of CAPEX (Capital Expenditure) intensive for the common man to afford. In a typical solar photovoltaic (PV) system, 40% of the cost is accounted for by solar modules, and the remaining costs arise from other systems and installation services. The payback period for small capacity solar systems with storage is above 10 years, making them uneconomical from an energy payback and Levelized Cost of Electricity (LCOE) perspective.

Product details

Description **-** The team has designed a product that can convert any existing stationary battery-based UPS system (operating from 12V to 240V batteries) to solar power.

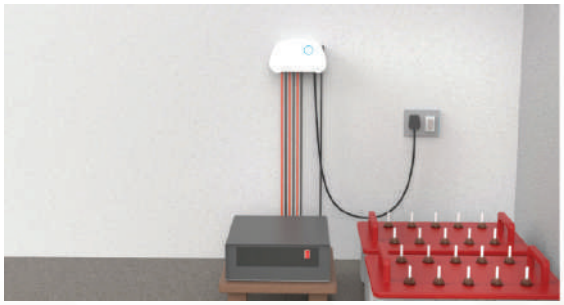
Application **-** A few technocrats with product development and research experience formed the NyQuest Innovation Labs. A core team develops the functional products for NyQuest. The team has a collective experience of more than 60 years in designing and developing power electronic products with digital controls for renewable energy applications. The mission of NyQuest is to empower individuals to go solar at the lowest possible cost to the customer by converting at least 1 million Uninterrupted Power Supply (UPS) systems and backup inverters to solar power over the next 6 years.

Value Proposition - NyQuest Innovation Labs provide the lowest cost of going solar as they leverage the existing infrastructure like the uninterrupted power supply system already available at the customer premises.

Achievements

- Received investments of Rs. 191 lakhs

End users - Consumer/Enterprise



Founder- Lakshmi Nambiar

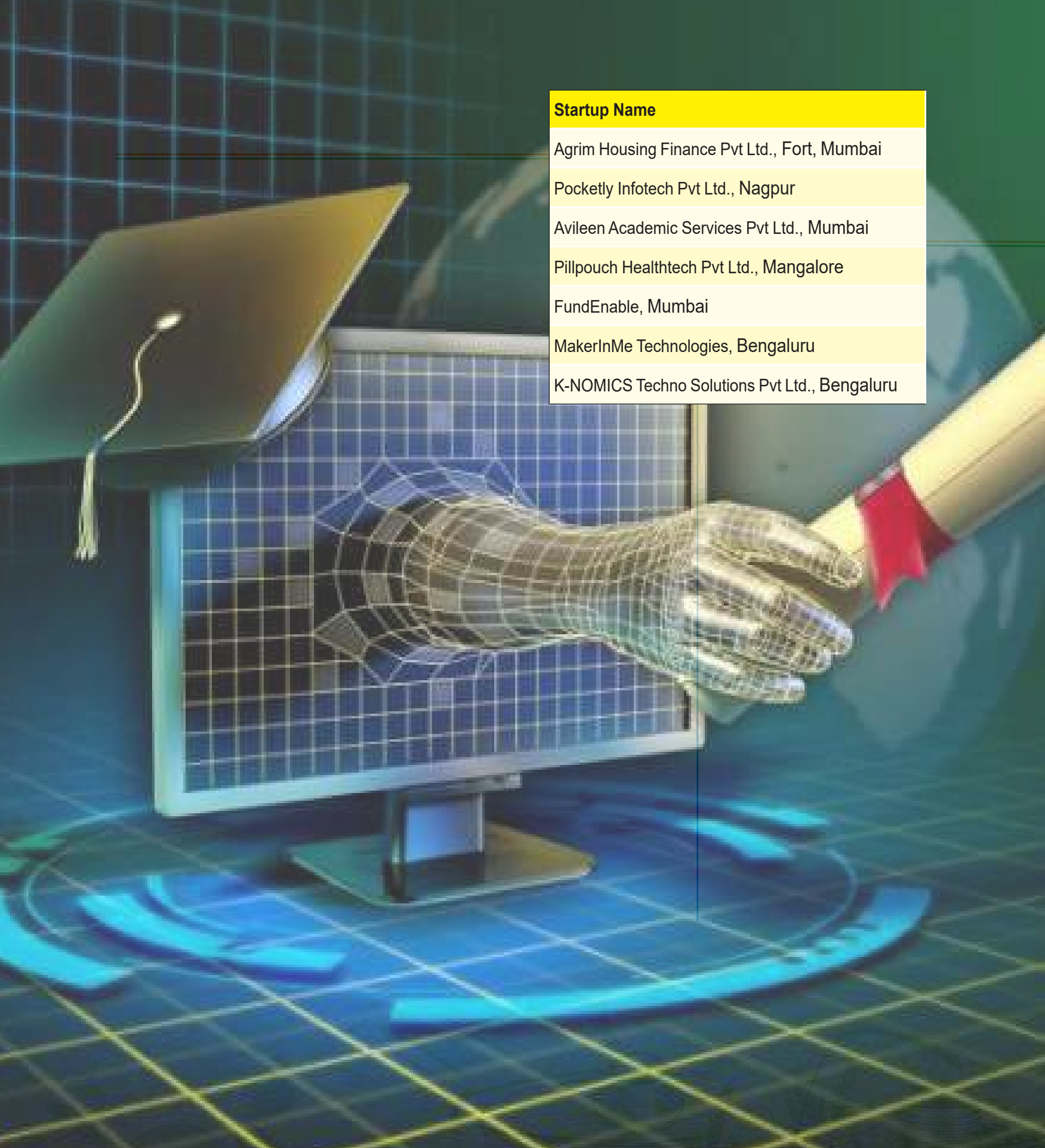
Technology Readiness Level (TRL) - 9

Incubated at

IIM KOZHIKODE LIVE
LABORATORY FOR INNOVATION VENTURING AND ENTREPRENEURSHIP

IIMK LIVE, Kozhikode, Kerala
www.iimklive.org
enquiry@iimklive.org

FINANCE
&
EDUCATION TECHNOLOGY
4.0



Startup Name
Agrim Housing Finance Pvt Ltd., Fort, Mumbai
Pocketly Infotech Pvt Ltd., Nagpur
Avileen Academic Services Pvt Ltd., Mumbai
Pillpouch Healthtech Pvt Ltd., Mangalore
FundEnable, Mumbai
MakerInMe Technologies, Bengaluru
K-NOMICS Techno Solutions Pvt Ltd., Bengaluru

Agrim Housing Finance Pvt Ltd., Fort, Mumbai

https://agrimhfc.com/

Product - AGRIM INSTA HOME LOANS App

Problem Addressed - Agrim Housing Finance Company (HFC) increases digital origination by over 70% compared to traditional financial institutions. Powered by supervised machine learning, artificial intelligence, and non-conventional data, sanctions to the Economically Weaker Sections (EWS) and Lower Income Group (LIG) segments are increased by 74% compared to the traditional financial institutions.

Product details

Description **-** With superior risk assessment, Agrim HFC provides principally approved home loans in 10 minutes.

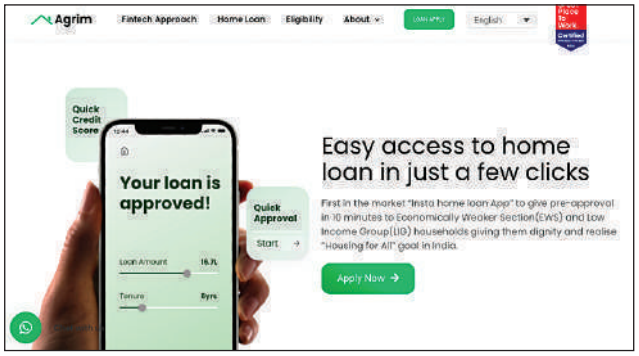
Application **-** Agrim Housing Finance Pvt Ltd. is India's first digitally enabled housing finance company catering to the homeownership needs of the self-employed and informal workers belonging to economically weaker sections (EWS) and lower income group (LIG) households.

Value Proposition - Principally approved home loans in 10 minutes, providing dignity to the people from EWS and LIG households that are self-employed or employed in the informal sector.

Achievements

- Reach to over 1 million customers per month
- Presence in 4 states and 5 locations (Kalyan, Pune, Indore, Bengaluru, Coimbatore)
- Growth of over 10 times on loan book and operating income
- Received funding from NRI impact investors

End users - Economically Weaker Section (EWS) customers (41%), Lower Income Group (LIG) customers (37%), Middle Income Group (MIG) customers: MIG 1 (17%), MIG 2(5%)



Founders - Dr Malcolm Athaide
Devesh Sharma

Technology Readiness Level (TRL) - 9

Intellectual Property - Credit profiling and scoring for 50 profiles and proprietary low code workflow yet to be applied.

Incubated at

Zone Startups India (BRTSIF), Mumbai
india.zonestartups.com
krutika.shelke1@brtsif.com

Pocketly Infotech Pvt Ltd., Nagpur

https://www.pocketly.in

Product - POCKETLY

Problem Addressed - The main aim of Pocketly is to make students financially independent so that they can focus entirely on their education. When taking a loan from any other traditional lending institution, the main problem that a student faces is providing some collateral which is not the case with Pocketly as it does not demand any collateral.

Product details

Description - Pocketly is a fintech startup focussing on the young generation. It aims to build a smart, simple, and transparent platform to create a better financial experience for every user.

Application - Many youth professionals may need cash for their daily needs or to overcome the month-end financial crunch. Pocketly can be a handy companion in dealing with such situations as it provides short-term personal loans.

Value Proposition - The users have found the app to be very interactive because of its clean and simple user interface. The registration process has also been kept relatively simple.

Achievements

- More than 7 lakh downloads
- National presence
- More than one lakh beneficiaries with Rs. 264 crores annualised lending
- Received investment of Rs. 819 crore

End users - Students

Founders - Aarav Bhatia
Navdeesh Ahuja

Technology Readiness Level (TRL) - 9

—

Incubated at

riidl

RIIDL, Mumbai
https://riidl.org
riidlfoundation@somaiya.edu

Avileen Academic Services Pvt Ltd., Mumbai

www.vidyalaya.org.in

Product – AAS VIDYALAYA, THE ANYTIME ANYWHERE SCHOOL

Problem Addressed – As per NEP, more than 6 crore students are not able to go to school for various reasons. The average attendance in secondary grades is only 50%. Only 30% of children go beyond Grade 10. AAS solves these problems.

Product details

Description **–** AAS is available as a web portal, android app, 24x7 channel on Jio TV, Jio STB app, and audio only on JioSaavn (for the visually impaired).

Application **–** AAS Vidyalaya – Anytime Anywhere School is the power in the hand of every child to unlock their potential through holistic learning and guidance. AAS (which means hope in Hindi), aimed at being India's first virtual school, has a vision of making every Indian 10th pass by bringing the school to those children who cannot go to school for any reason whatsoever.

Value Proposition – India's first and only completely online school offering the exact school curriculum of ALL Subjects to help bridge the schooling gap. The AAS also includes 15 physical education cafes to bridge the non-availability of devices.

Achievements

- Reached more than 5 lakhs students
- Domestic presence
- Growth is doubling every year
- Funding from NIDHI-Seed Support System (NIDHI-SSS)

End users– Students of Grades 6-10 in Tier 2/3 towns and rural India (Bharat) who learn in their vernacular languages.

Founders – Vikas Kakwani
Leena Kakwani

Technology Readiness Level (TRL) – 9

Incubated at

SP-TBI, Mumbai
www.sptbi.com
managertbi@spit.ac.in

MicroDegree Pillpouch Healthtech Pvt Ltd., Mangalore

www.microdegree.work

Product – MICRODEGREE

Problem Addressed – MicroDegree teaches on-demand industry skills in local languages and empowers talent from smaller towns and villages with employment outcomes.

Product details

Description **–** MicroDegree is a multilingual IT skilling platform for Bharat. At MicroDegree, they teach on-demand IT skills in local languages/vernacular, empowering technological talent from smaller towns and villages to find employment outcomes.

Application **–** Skills in local languages/vernacular empower technological talent from smaller towns and villages to find employment outcomes.

Value Proposition – Teaching IT skill in the local language and creating mass employment through monthly virtual job fairs/placement drives.

Achievements

- More than 15000 users
- Currently present in Kannada/Karnataka market and aspiring to enter other markets such as Hindi, Marathi, Gujarati, Telugu, and Tamil
- Revenue growth of more than 15 times since investment by NIDHI - Seed Support System (NIDHI-SSS)
- Raised funding from 100X.VC, a venture capital based out of Mumbai and from Angel Investment
- The team has grown from 3 to more than 25

Founders – Gaurav Kamath B
Rakesh N K
Manikanta A Nair

Technology Readiness Level (TRL) – 9

Incubated at

riidl

RIIDL, Mumbai
https://riidl.org
riidlfoundation@somaiya.edu

FundEnable, Mumbai

www.iavc.in

Product - FUNDENABLE

Problem Addressed - Nine out of ten entrepreneurs need funds but have no idea about the fundraising process and become victims of brokers who charge exorbitant fees. The media and Edtech platforms provide references of scaled start-ups from Silicon Valley, but these examples are not relevant for an early-stage Indian start-up raising seed capital.

Product details

Description **-** A MOOC (Massive Open Online Learning) platform currently licensed on Knorish Learning Management System with integrations such as RazorPay, PayPal, Google Analytics, Pixel, Zapier, Freshdesk, Mailchimp, etc.

Application **-** FundEnable is a platform focused on upskilling entrepreneurs in the process of fundraising. Through online courses, a suite of tools and templates, and e-mentoring, FundEnable helps entrepreneurs prepare for every step in the fundraising process – from creating business plans, negotiating valuation, tackling due diligence, and more. FundEnable offers 12+ courses and 20+ tools and templates designed by investment bankers with decades of capital raising experience.

Value Proposition - It is the only blended platform that provides fundraising assistance to early-stage start-ups. FundEnable offers online courses tailored to Indian start-ups and venture capital landscape. It is affordable, accessible, and relevant to MSMEs pan-India with zero-cost customer acquisition for advisory/investment banking services.

Achievements

- More than 1,700 subscribers and 35 Business-to-Business (B2B) incubators/ corporate clients with revenue generation of Rs. 30 lakh
- Subscribers from India, USA, UK, UAE, Singapore, and South Korea
- Subscriber growth of 44% quarterly and 7.4 times revenue from Advisory Upsells
- External Investments of Rs. 70 lakh from BRTSIF and Rs. 10 lakh from Angels

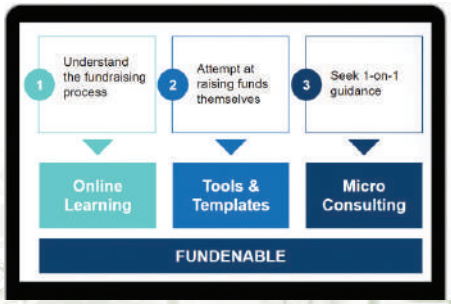
End users - Entrepreneurs, MSME owners, senior management, fund managers, Chartered Accountants, Angel investors, High Net-worth Individuals (HNIs).

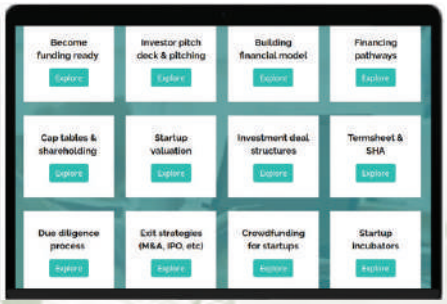
Founders - Vikrant Potnis
Prutha Atre

Technology Readiness Level (TRL) - 9

Incubated at

Zone Startups India (BRTSIF), Mumbai
india.zonestartups.com
krutika.shelke1@brtsif.com





MakerInMe Technologies, Bengaluru

www.cretile.com

Product - CRETILE

Problem Addressed - STEM education is accepted globally as a practical hands-on methodology to prepare students for future skills. However, STEM education has many barriers. Students need to learn too many complex technology details at the beginning, which demotivates them. There is also a lack of STEM teachers who are good at the technology aspects of STEM.

Product details

Description **-** Cretile is an easy-to-use modular electronics and software building block for making STEM projects for K12 students.

Application **-** It allows students to start without any coding knowledge and gradually learn coding and the latest technologies in a highly engaging way.

Value Proposition - Cretile is the only kit in STEM education that provides a gradual learning path to students. A detailed 5-year curriculum & content is available for STEM education. There are very minimal consumable parts in the kit.

Achievements

- More than 150 Business-to-Business (B2B) customers
- Deployed in more than 700 Approaches to Learning (ATLs) and 500 Schools
- Presence in India and UAE
- Growth of over at 2 times year-on-year

End users - K12 students are the end users of the solution. STEM education companies and schools are customers.

Founders - Harish Rawlani
Parag Gulhane

Technology Readiness Level (TRL) - 9

Intellectual Property- Patent pending for connections between blocks

Incubated at

DERBI Foundation, Bengaluru
https://derbifoundation.com
info@derbifoundation.com

K-NOMICS Techno Solutions Pvt Ltd., Bengaluru

www.mintbook.com

Product - MINTBOOK

Problem Addressed - The suite of e-learning solutions addresses the issues of limited access to libraries and books, decreased focus on vocational and employability skills in conventional education, lack of structured self-learning process, lack of dynamic education at the age of migrant students, and absence of quality curated materials.

Product details

Description - The products are a teaching and learning platform with preloaded educational content; a Digital Library; a learning platform (web and mobile); an MBOX Internet of Things (IoT) device for offline access to contents; a self-regulated learning platform for students with mapped and tagged content and study tools.

Application - Mintbook's suite of e-learning solutions includes a robust Digital Library, a highly scalable Learning Management Solution (LMS) system, virtual classroom software, and online exam software. The digital content dissemination platform is powered by proprietary Digital Rights Management (DRM) and eReader/Player. A pioneer in Digital Library and LMS in the country, Mintbook has set up more than 1200 Digital Libraries, catering to the needs of educational institutions, enterprises, smart cities, and the Government. MBOX is a smart learning device designed by MintBook to help young students understand complex topics. This pocket tool contains a digital library of eBooks, videos, and other multimedia relevant to different subjects and interests.

Value Proposition

The product has preloaded mapped content curated with experts, an integrated Learning Management System, a proprietary Digital Rights Management (DRM) enabling content security, performance analytics, and an Internal Library to add institutional content.

End users - Universities and Educational Institutions, Public Libraries, Public Enterprises, Banks, Healthcare Agencies, Students, etc.

Founder- Kalaivani Chittaranjan

Technology Readiness Level (TRL) - 9

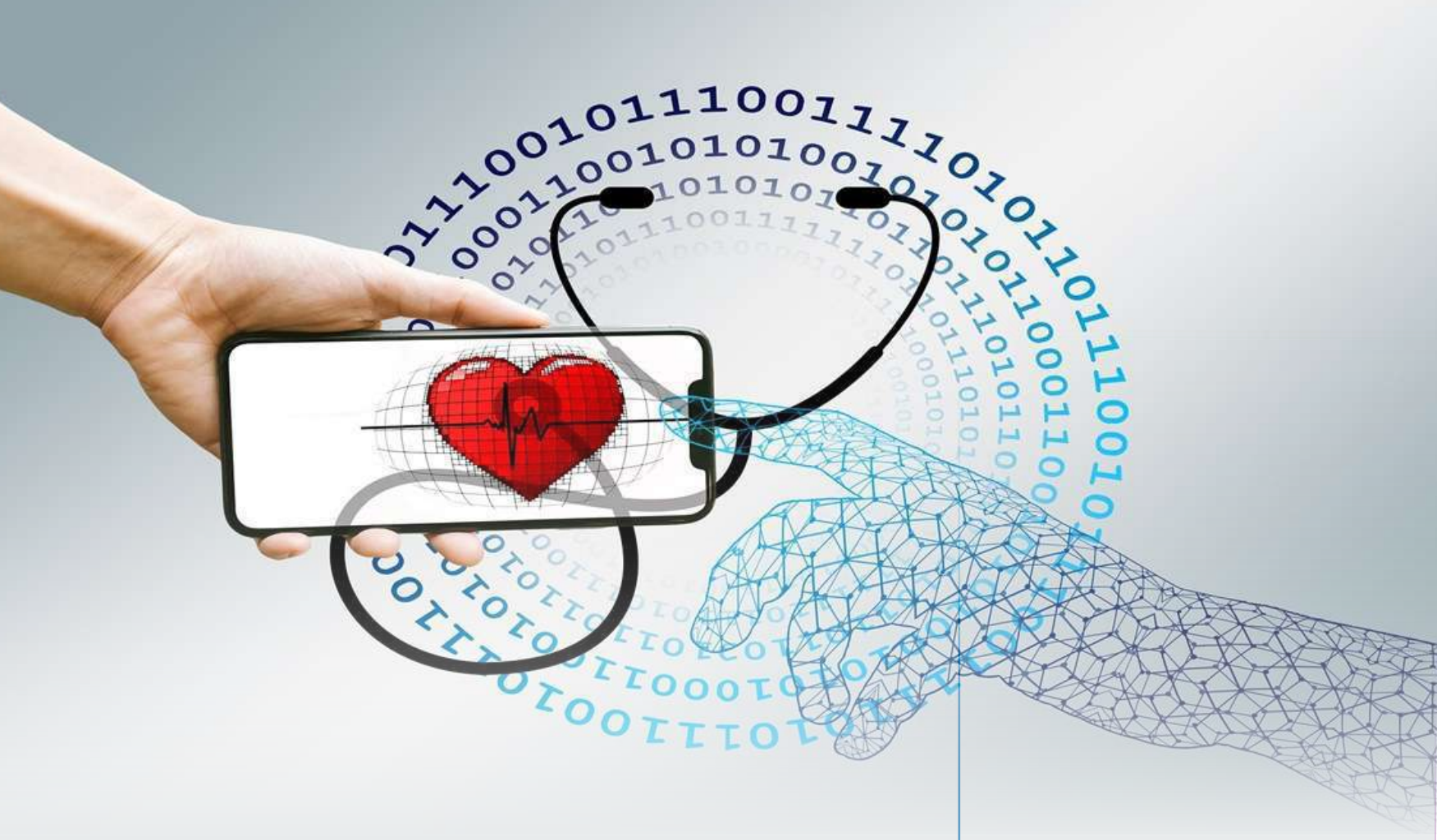
Intellectual Property - 1 Patent

Incubated at

Amrita TBI, Bengaluru
www.amritatbi.com
info@amritatbi.com

SICKNESS RATE
CREATIVITY
DISCOVERY
INSPIRATION

HEALTHCARE
&
MEDICAL DEVICES



Startup Name
Briota Technologies Pvt Ltd., Pune
Zedblox Logitech Pvt Ltd., Hyderabad
Agasta Software Pvt Ltd., Gautam Buddha Nagar
Roundworks Technologies, Pune
5C Network, Bengaluru
Nanoclean Global, New Delhi
Clensta International, New Delhi
Weinnovate Biosolutions Pvt Ltd., Pune
Jajal Medical Services Pvt Ltd., Vadodara
Piltover Technologies, Bengaluru

Startup Name
VYAAN Purifiers Pvt Ltd., Noida
Remidio Innovative Solutions, Bengaluru
Blackfrog Technologies Pvt Ltd., Manipal
Evelabs Technologies Pvt Ltd., Kochi
Sascan Meditech Pvt Ltd., Trivandrum
Waferchips Techno Solutions Pvt Ltd., Kollam
Pankhtech India, New Delhi
Vendaxo; Dia Happy Health Pvt Ltd., Ahmedabad
Alfaleus Technology Pvt Ltd., Bengaluru
Waferchips Techno Solutions Pvt Ltd., Kollam

Briota Technologies Pvt Ltd., Pune

www.briota.co

Product - HAND-HELD DIGITAL SPIROMETER - SPIROPRO™

Problem Addressed - Chronic Obstructive Pulmonary Disease (COPD) is the second major cause of deaths due to non-communicable diseases in India. COPD has an enormous societal and economic burden on the health infrastructure. Early detection, diagnosis, and intervention using Briota's Artificial Intelligence (AI) first solution for COPD will help reduce this economic burden.

Product details

Description **-** Briota's SpiroPRO uses AI and Machine Learning (ML) algorithm to measure the lung parameters and prepare the report with predictions, which helps experts diagnose the patient more efficiently and quickly.

Application **-** SpiroPRO™ uses the power of AI to conduct early and precise diagnosis of COPD, Asthma, Long Covid, Interstitial Lung Disease (ILD), etc. Briota's devices are fully integrated with its mobile application SiA™ (Systematic Intervention Agent), which helps in the optimal management of disease at home.

Value Proposition - Briota's flagship product is India's first hand-held digital spirometer **-** SpiroPRO™, which uses the power of AI to diagnose early and precise COPD, Asthma, Long Covid, ILD, etc.

Achievements

- Grants received from Biotechnology Industry Research Assistance Council (BIRAC), NIDHI4COVID, Derby, Acceleration Initiative for Devices and Diagnostics-Research, and Innovative Circle of Hyderabad (AID-RICH)
- Incubated at Atal Incubation Centre-Centre for Cellular and Molecular Biology (AIC CCMB), Hyderabad
- Part of Atal Innovation Mission-Program for Researchers in Innovation, Market Readiness, and Entrepreneurship (AIM-PRIME)
- Recipient of Organisation of Pharmaceutical Producers of India (OPPI) Innovation award
- Part of the QUALCOMM Innovation Challenge

End users – Hospitals, Clinicians, Primary Health Centres (PHCs)

Founders- Dr Gajanan Sakhare
Shardul Joshi

Technology Readiness Level (TRL) - 8

Intellectual Property - 1 patent granted

Incubated at

ATAL INCUBATION CENTRE
CENTRE FOR CELLULAR & MOLECULAR BIOLOGY
Supported by Atal Innovation Mission, NITI Aayog

AIC-CCMB, Hyderabad
https://aic.ccmb.res.in/
aic@ccmb.res.in

Zedblox Logitech Pvt Ltd., Hyderabad

https://www.zedblox.com

Product - ACTIPOD

Problem Addressed - Cold chain failures in healthcare are more common than expected since conventional passive containers have no monitoring or control. This impacts product integrity leading to ineffective diagnosis and treatment.

Product details

Description **-** ActiPod uses patented technology to provide active, adjustable temperature control from -10 to +25˚C along with Artificial Intelligence (AI)-powered remote live Global Positioning System (GPS) and temperature monitoring and mobile alerts.

Application **-** ActiPod patented products from ZedBlox are crucial for creating unbreakable cold chains in the healthcare domain to ensure thermal integrity of pharmaceuticals, tissue samples, vaccines, reagents, blood products, etc., and to maintain the delivery of effective diagnoses and treatments to patients.

Value Proposition - Zero product wastage; Zero cold chain infrastructure required; Live GPS, temperature, and device monitoring with AI/Machine Learning (ML) based analytics and mobile alerts; ISO 13485 certified

Achievements

- Launched in India and scheduled international launch in 18 months
- Generated revenue of Rs. 25 lakh on 60 lakh orders
- Received investment of Rs. 95 lakh and further commitment of Rs. 1.25 crore

End users - Blossom Hospitals provided rural diagnostics, Aresta Medical Centre provided vaccination clinics, CCMB-Lacones provided the research into the conservation of endangered species, and IMS provided cold chain delivery services.

Founders - Rao Korupolu
Viraaj Somayajula

Technology Readiness Level (TRL) - 9

Intellectual Property – 1 Indian patent granted

Incubated at

ATAL INCUBATION CENTRE
CENTRE FOR CELLULAR & MOLECULAR BIOLOGY
Supported by Atal Innovation Mission, NITI Aayog

AIC-CCMB, Hyderabad
https://aic.ccmb.res.in/
aic@ccmb.res.in

Agasta Software Pvt Ltd., Gautam Buddha Nagar

www.agatsa.com

Product - SANKETLIFE

Problem Addressed - 12 LEAD Electrocardiogram (ECG) is limited to hospitals and laboratories. They are not even available in the physician's office. The ECG machines are costly and require one dedicated person to operate, which adds additional costs. Regular EGC machines do not provide ECG interpretation and need a cardiologist to be present at the site.

Product details

Description **-** Devices use Photoplethysmography (PPG), a non-invasive technology that uses a light source and a photodetector at the surface of the skin to measure the volumetric variations of blood circulation. PPG Waveforms can analyse and predict hemodynamics and link them to BP.

Application **-** SanketLife is an integrated platform with Doctor Platform collaboration which consists of devices, mobile applications, cloud and Artificial Intelligence (AI), and SDK for applications. The devices also create a report and share it with healthcare providers through Sanketlife App and Cloud.

Value Proposition - SanketLife devices are only 12 LEAD ECG devices in the world that are so small that they fit in a pocket and complete an entire medical-grade ECG with the touch of fingers.

Achievements

- SanketLife 2.0- 12 Lead ECG for iPhone/Android
- SanketLife Multi-Vital – Heart, Blood Pressure (BP), Lung, and Temperature All in One
- SanketLife Pro Plus- 12 LEAD ECG and Stress monitor
- Agatsa Oxygen Concentrator

End users - Hospitals, Clinics, Doctor's offices, Community Health Centers, Patients who need continuous cardiac monitoring, Remote Heart Monitoring, Health Kiosks, Geriatric Care Units

Founders- Rahul Rastogi
Neha Rastogi

Technology Readiness Level (TRL) - 9

Intellectual Property - 4 patents

Incubated at

Amrita TBI
www.amritatbi.com
info@amritatbi.com

alveofit® Roundworks Technologies, Pune

www.alveo.fit/

Product - ALVEO FIT

Problem Addressed - In India, approximately 91 million people are affected due to Asthma, Chronic Obstructive Pulmonary Disease (COPD), low lung function, and lack of affordable care. Therefore, respiratory illnesses like COPD, Asthma, Interstitial Lung Disease (ILD), Pulmonary Fibrosis, post-Tuberculosis (TB) rehab, and post-Covid-19 rehab disproportionately affect people, especially low-income populations, due to a lack of access to affordable healthcare services and out of pocket nature of expenses.

Product details

Description **-** Roundworks is developing an ecosystem to provide comprehensive health care to patients diagnosed with Asthma, COPD, and other respiratory illness. The digital integrated Respiratory Healthcare platform, along with the spirometer, manages and monitors the users' lung conditions in real-time, enabling access to doctors for consultations.

Application **-** Roundworks provides end-to-end solutions for holistic respiratory care with clinical grade, affordable, hand-held spirometers. Alveofit is an end-to-end, clinical grade, holistic ecosystem for affordable and accessible respiratory care for the very first time globally.

Value Proposition - An affordable, accessible, and clinical grade platform to democratise the end-to-end holistic respiratory care for the first time to manage the lung health of the people and help them live a symptom-free life.

Achievements

- 50+ devices LIVE in multiple government hospitals, private hospitals and clinics, pharma companies, and labs
- US FDA filing in progress for international expansion
- Around 5000+ tests were conducted in the last 6-8 months at the grass-root level

End users - Pharma companies, ESI Hospitals, Military hospitals, Medical Colleges, Labs, and Private Clinics across Tamil Nadu, Uttar Pradesh, Delhi, Gujarat, and Maharashtra

Founders - Dr Prashant Patel
Devendra Prasad

Technology Readiness Level (TRL) - 9

Intellectual Property - Device patent published, Design patent granted

Incubated at

Forge (Coimbatore Innovation and Business Incubator), Coimbatore
https://www.forgeforward.in/
ceo@forgeforward.in

5C Network, Bengaluru

https://5cnetwork.com/

Product - 5C NETWORK

Problem Addressed - Technology to scale the radiology and quicker diagnosis does not exist, creating a bottleneck and delay in critical patient care along with hassles for diagnosis.

Product details

Description **-** An IT platform that creates a network of radiologists who can refer to patient cases remotely using embedded Artificial Intelligence (AI) tools and complete diagnosis and reporting in record turnaround time.

Application **-** A teleradiology platform that helps stakeholders such as imaging centres, hospitals, radiologists, and patients to get a quicker diagnosis and timely reports for prognosis

Value Proposition - 5C is one of the country's largest teleradiology service provider and boasts of one of the fastest diagnoses for patients.

Achievements

- Domestic presence
- Has grown from 5000 cases per month to 160000 cases per month in 5 years
- Raised funding of more than Rs. 17 crores from Axilor, Unitus, and Tata 1mg
- Generated revenue of Rs. 35 crores in FY22

End users - Diagnostic Centres, Hospitals

Founder - Kalyan S

Technology Readiness Level (TRL) - 9

Incubated at

CIIE.CO, Ahmedabad, Gujarat
https://ciie.co/
neeraj@iima.ac.in

Nanoclean Global, New Delhi

https://nanoclean.store/

Product – NANOTECHNOLOGY-BASED NASAL FILTERS

Problem Addressed - Development of preventive measures for polluted air and products for air filtration.

Product details

Description - A national award-winning product, Nasofilters, is a respiratory nasal filter that sticks to your nose and prevents the entry of harmful air pollutants (PM2.5). Nasofilters are easy to use and have been globally recognised as a powerful solution to pollution.

Application - Nanoclean Global Pvt Ltd. is a manufacturer of a wide spectrum of Nasofilters, Safety masks, Nanoclean AC filters, etc. The nano-filter technology has engineered a solution to the ever-increasing pollution levels. The company focussed on high-end research at an extensive level with their highly qualified team and aimed to pair the developed technology with the manufacturing processes to deliver tailor-made solutions at every level.

Value Proposition- Nano technology-based filters to prevent the entry of harmful particles.

Achievements

- More than 1.5 lakh customers have been served
- Generated revenue of Rs. 15 crores
- Received funding of Rs. 7 crores

End users– Direct-to-Consumer (D2C) Market

Founder - Prateek Sharma

Technology Readiness Level (TRL) - 9

Intellectual Property- Patented technology for filters based on nanotechnology

Incubated at

FITT-IIT Delhi
https://fitt-iitd.in/
fit.incubator@gmail.com

Clensta International, New Delhi

https://clensta.com/

Product - WATERLESS BATHING SOLUTION

Problem Addressed - Inaccessibility of personal hygiene in the absence of water for the various segment of personals such as patients and defence personals, and Tier 2, Tier 3 regions. It is also the 1st ever complete solution for post-operative care.

Product details

Description **-** The products are waterless and provide Prolonged Antiviral Protection (PAP) by forming a protective layer around the skin to protect it for up to 12 hours.

Application **-** Clensta is a biotechnological brand that lays roots in pioneering the innovation of 'Waterless Technology'. Their products come with the USP that alcohol-free waterless technology can be used to maintain personal hygiene without needing water. The products have found an excellent use for the Indian Navy and Army with no availability of usable water. It can be used by hospitalized patients who cannot take a bath with water and can be given a waterless bath on their beds. The products have also found customers in travelers and adventure enthusiasts.

Value Proposition - Waterless personal hygiene solutions

Achievements

- 800 million litres of water saved
- Generated revenue of Rs. 45 crores
- Received funding of Rs. 30 crores

End users - Patients, Defence Personals, D2C market, Mode Trade, Pharmacies

Founder - Puneet Gupta

Technology Readiness Level (TRL) - 9

Intellectual Property - More than 6 patented technologies filed, 2 PCTs (Patent Cooperation Treaty) filed, and 5 technologies commercialised.

Incubated at

FITT-IIT Delhi
https://fitt-iitd.in/
fit.incubator@gmail.com

Weinnovate Biosolutions Pvt Ltd., Pune

www.wibpl.com

Product – SILVOGUARD

Problem Addressed - Hospital-acquired infections affect 15 million people worldwide and cause ~6% of hospital deaths. Hospital-acquired infections cause fatality and increase healthcare expenditures.

Product details

Description **-** SilvoGuard antimicrobial foley catheter is impregnated with patented NanoAgCide - active silver nanoparticles. SilvoGuard prevents 87% of hospital-acquired infections, saving lives and costs across the healthcare chain.

Application **-** India's first antimicrobial urinary foley catheter, used for darning urine from patients in critical care, surgery, or having urinary incontinence. SilvoGuard saves 89% of catheter-associated infections and aims to reduce overall hospital-acquired infections by launching more antimicrobial products.

Value Proposition - Completely antimicrobial; 1/3 of the cost of imported products; Completely made in India

Achievements

- Reached up to 30000 patients
- Presence in 6 states in India and Nepal
- Incremental growth
- Raised funding of Rs. 3.5 crores from Chiratae Ventures

End users – Hospitals, Home care, Rehabilitation centres

Founders - Dr Milind Choudhari
Dr Anupama Engineer
Dr Prasad Bhagat

Technology Readiness Level (TRL) - 9

Intellectual Property - Indian patent received

Incubated at

Venture Center, Pune
www.venturecenter.co.in
info@venturecenter.co.in

Jajal Medical Services Pvt Ltd., Vadodara

https://jajalmedical.com/

Product - JAJAL MEDICAL

Problem addressed - Traditionally, surgeons use CT scans to calculate the actual damage and try to figure out ways to fix it. CT scans are 2D models that do not really help, and sometimes, implants created based on the same do not fit, causing doctors to abort the surgery mid-way and close the wound.

Product details

Description **-** They support surgeons and medical device companies with their diverse services by providing better 3D visualization of patients' anatomy, preparing virtual surgical plans, designing and manufacturing customized patient-specific orthopedics 3D printed models, surgical guides, and custom implants.

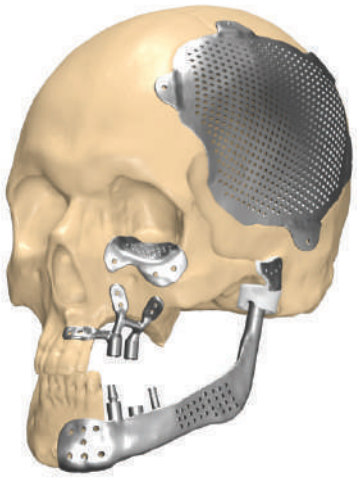
Application **-** 3D printed customized metal implant made of Titanium with a unique porous structure and hydroxyapatite (HA) coating for better osteointegration of the implant with the bone.

Value Proposition - Indigenous, customized fit, and clinically proven porous coated implants. Only company to offer a combination of HA Coating and porous Titanium with clinically validated bone ingrowth.

Achievements

- Got featured in NITI AAYOG healthcare coffee table book
- Raised funding of Rs. 50 lakh from Angel Investors, Rs. 4.3 crores from VC Angels, and Rs. 3 lakh from SAP ARIBA

End users – Hospitals, Surgeons



Founders - Ketan Jajal
Ravikant Kamal

Technology Readiness Level (TRL) – 9

—

Incubated at

GUSEC, Ahmedabad, Gujarat
www.gusec.edu.in
contact@gusec.edu.in

Piltover Technologies, Bengaluru

www.piltovertechnologies.com

Product - IDA M-SERIES I

Problem addressed - The technology gap between urban and rural realms is widening. This technological divide between the products in the urban and rural domains is concerning in the disability space. The company is on a mission to build inclusive technology products for the differently abled, starting with a low-cost high-utility prosthetic hand for the differently abled at the bottom of the pyramid.

Product details

Description **-** Users can close the palm of the prosthetic hand to pick up an object by the turn of a knob. This way, the user does not have to exert additional force or keep their muscles flexed to continue holding an object. The product also entails features such as 180-degree wrist rotation and 90-degree thumb rotation, allowing the users to perform various tasks.

Application **-** IDA is the world's most functional mechanical prosthetic hand, capable of performing at least a fifth of what a Bionic hand can do at less than 1 percent of the cost. IDA carries a proprietary knob-based self-locking mechanism, and several other features, that eliminate the need to apply any physical force when the user is picking up various objects.

Achievements

- Represented India in Jerusalem, Israel, for StartJLM and in Paris, France, for Vivatech, 2022
- Raised investment from ThinQbate (Mumbai) and Hatcher+ (Singapore)
- Currently valued at Rs. 10 crores

End users - Amputation: Below the elbow; Gender: Male and Female; Age Group: Adults (18+); Financial Status: Low Income Class

Founder - Manan Issar

Technology Readiness Level (TRL) - 9

Incubated at

IIM Udaipur INCUBATION Centre

IIM Udaipur Incubation Centre,
Udaipur, Rajasthan
https://iimuic.org/
incubation@iimu.ac.in

VYAAN Purifiers Pvt Ltd., Noida

https://vyaanpurifiers.com

Product - VYAAN HEPA REUSABLE RESPIRATOR AND VYAAN SMART MASK

Problem addressed - Effective everyday use of personal and digital respiratory healthcare solutions for complete safety, preventive diagnosis, real-time breath analysis, and anomaly detection using advanced Machine Learning (ML) models. Providing indigenous manufacturing process for highly cost-effective healthcare products

Product details

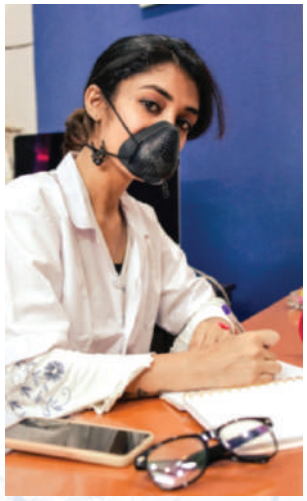
Description **-** The product provides complete safety from air-borne pollutants, Air Quality Index (AQI) based safety alerts, and predictive analysis of respiratory attacks based on personalized health sensing. It also provides a breathing pattern analysis for preventive diagnosis and vital physiological parameter estimation (PEFR, FEV1).

Application **-** Synthetic High-Efficiency Particulate Air (HEPA)-based filter media and Unique Type face seal for complete safety from air-borne pollutants. It also has a Unique Sensor integrated into the mask to capture breathing patterns and detect anomalies like coughing or wheezing while breathing.

Achievements

- 7000 units sold
- Serving pan India through online channels
- CAGR of 15%

End users - Covid frontline workers, Covid, Asthma, and Chronic Obstructive Pulmonary Disease (COPD) patients, Industrial Workers



Founders - Jathin Jagannath
Vijay Singh
Bharath Yadav

Technology Readiness Level (TRL) - 9

Intellectual Property - Received

Incubated at

TIDES IITR, Roorkee, Uttarakhand
http://tides.iitr.ac.in/
tides@iitr.ac.in

Remidio Innovative Solutions, Bengaluru

https://www.remidio.com/

Product - Hand Held Fundus Camera | FOP NM-10

Problem addressed - Preventing needless blindness with early detection.

Product details

Description **-** The technology used in the device is annular illumination in a hand-held device to get high-quality retina images, which can be used to screen for various conditions of the retina. Remidio has an Artificial Intelligence (AI) algorithm to check the presence of diabetic retinopathy and Glaucoma by measuring the cup and disc ratio.

Application **-** Hand Held Fundus Camera - FOP NM-10 is intended for capturing and storing images of the retina and surrounding area of the eye, with or without using a mydriatic agent, and presenting the data to clinicians for evaluation or diagnosis. A high-resolution camera-enabled mobile platform is used to digitally capture images of the retina. This mobile platform, i.e., a smartphone, is loaded with application software, which enables the user to view, save, archive, edit, and retrieve captured images. Light from the device is shown into the patient eye, and the camera of a smartphone is used to capture images of the eye.

Value Proposition - High-quality imaging, Portable, Ease-of-use, Offline, AI, Unlimited cloud storage with the patient management system.

Achievements

- 3000 units installed in India, 600 in the US, and 100 in ROW
- Presence in 25 countries
- Current growth is at 118%, while from FY-22 to FY-23 anticipated growth projection is ~ 58%
- Received investment of Rs. ~31 crores

End users - Ophthalmologists, Optometrists, General physicians, Diabetologists, Diagnostic clinics

Founder - Dr Anand Sivaraman

Technology Readiness Level (TRL) - 9

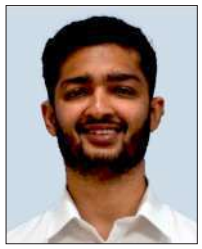
Intellectual Property - Received

Incubated at

IKP Knowledge Park, Hyderabad
http://ikpknowledgepark.com
Isi@ikpknowledgepar.com

Blackfrog Technologies Pvt Ltd.

Manipal www.blackfrog.in



Product - EMVOLIO

Problem addressed - Iceboxes, the predominant mode of vaccine transportation during the last mile, have no temperature control and regulation no mechanism. This causes a risk of accidental freezing and/or thawing of temperature-sensitive vaccines rendering them inefficacious. The lack of reliable temperature monitoring capabilities in iceboxes makes it challenging to determine the efficacy of the vaccines in advance. Therefore, a proportion of the population may receive inefficacious vaccines, significantly impeding immunization efforts.

Product details

Description **-** Emvólio's patented technology ensures that all contents in the cold chamber are blanketed in strictly temperature-controlled air. The underlying refrigeration mechanism is solid-state cooling with a smart PID (Proportional Integral Derivate) controller, which guarantees precise temperature maintenance without the risk of noxious refrigerant leakage or cross-contamination. The lack of motors/compressors or any moving parts enables low-maintenance operation. The unique design of Emvólio promises uniform cooling (no hotspots/cold spots within the cold chamber) and minimal freeze-thaw cycles (every time a user opens the lid to retrieve a vial and subjects the cold chamber to ambient air, the rapid cooling system onboard Emvólio brings the cold-chamber back to safe limits, i.e., 2-8 ^{o}C, over 96% faster than an ice-based product).

Application **-** Emvolio is a portable active cooling (battery-powered) device that will provide a platform for the delivery of vaccines and all other biologicals like blood, serums, viral culture, etc., which require to be kept strictly between 2 ^{o}C to 8 ^{o}C for 12+ hours in the field. The product has been designed in accordance with WHO PQS E003 specifications and conforms to IEC 60601 standards.

Value Proposition - Administering efficacious vaccines and minimizing vaccine wastage

Achievements

- Currently in 12 states of India
- Deployed 350+ units in India and the Middle East
- Launched in 2015, the company is now a team of 50+ employees
- Generated revenue of Rs. 2.6 crores in FY2021 and forcasted revenue of Rs. 21 crores in FY22
- Received funds of Rs. 2.4 crores
- Business target- Business-to-Business (B2B) and Business-to-Government (B2G)
- Raised funding of USD 1.5 million through CCAMP, Social Alpha, Venture Centre, and Manipal Group

End users - Healthcare workers (ASHAs/ANMs/Nurses/Cold Chain Technicians/Vaccine Cold Chain Managers), Laboratory personnel. Customers: NGOs, State Governments, CSR donors, private and government hospitals/labs, and research institutions.

Founders - Mayur U Shetty
Donson D Souza

Technology Readiness Level (TRL) - 9

Intellectual Property - Patented 3 technologies in India, pursuing PCT applications, 1 design patent, 1 technology patent, and 1 trademark

Incubated at

MANIPAL UNIVERSAL TECHNOLOGY BUSINESS INCUBATOR

Manipal Universal Technology Business Incubator, Manipal, Karnataka
www.mutbimanipal.org
mutbi.mit@manipal.edu

Evelabs Technologies Pvt Ltd., Kochi

www.evelabs.co

Product - DRIPO

Problem addressed - Infusion-related errors account for a large number of adverse events. Inpatient preventable medication errors cost approximately USD 16.4 billion annually. A systematic international review estimated that most errors occur in administration steps. Dripo can help to reduce or eliminate administration errors in IV (intravenous) effectively.

Product details

Description **-** Dripo counts the drops, calculates real-time drop rate, and sends data to central software installed at the nursing station, where rate changes and completion of every source will be alerted. The hub also provides a smart infusion chart, which will show the status of every ongoing and upcoming infusion and the patient history.

Application **-** Dripo is a wireless drop counter monitor clamped to the IV set that helps a health practitioner to set infusion rates accurately and monitor them remotely. It sends information and alerts on the drip status to the nursing station enabling nurses to monitor IV drips, maintaining safety and efficacy.

Value Proposition - Improved and efficient nursing practices by reducing or eliminating administration errors in IV drips.

Achievements

- 20 Customers; AIMS Raipur, Apollo, Adarsh Hospital, Travancore Medicity
- Generated revenue of Rs. 28 lakh
- Received investment of Rs. 1.2 crores

End users - Hospitals, Nursing Homes, Clinics

Founders - Vishnu M.S.
Sanjai Rajendran

Technology Readiness Level (TRL) - 9

Intellectual Property - Indian patent granted and filed for USPTO and EU patent

Incubated at

TIMed
Sree Chitra Tirunal Institute for Medical Sciences and Technology
be smart, be a part

SCTIMST TIMed, Kerala
https://www.timed.org.in
timed@sctimst.ac.in

Sascan Meditech Pvt Ltd., Trivandrum

www.sascan.in

Product - ORALSCAN

Problem addressed - In India, 136,000 cases of oral cancer were detected in 2018, which is 1/5th of the global burden. The mortality rate for oral cancer in India is more than 50%, owing to its late detection stages. Early detection of cancer can save millions of lives.

Product details

Description **-** OralScan uses multispectral imaging technology to screen oral cancer from tissue fluorescence and diffuse reflectance using a cloud-based Machine Learning (ML) algorithm.

Application **-** A hand-held multispectral imaging camera for screening and early detection of oral cancers and biopsy guidance.

Value Proposition - First time in the world that a multispectral imaging camera has been integrated into a hand-held imaging device for cancer detection. It uses a cloud-based ML algorithm for real-time user feedback on tissue status.

Achievements

- Next product, CerviScan for cervical cancer screening to enter the market in 2023
- Winner of National Startup India Award, 2021, Pharma & Medical Devices Grand Challenge, 2021, and Anjani Mashelkar Inclusive Innovation Award, 2021
- National reach - HCG Bangalore, RCC Thiruvananthapuram, RST Cancer Hospital Nagpur, India Relief Foundation Mumbai, Ekhom Foundation New Delhi, IGIDS Kothamangalam Kerala, Institute of Dental Sciences Belgaum, etc.
- Generated revenue of Rs. 1.05 crores in FY21-22

End users - Cancer patients, susceptible cancer patients, or as part of screening people

Founder- Dr Subhash Narayanan

Technology Readiness Level (TRL) - 9

Intellectual Property – Indian patent was awarded in 2018, and US and EU patents filed in 2018 and 2019

Incubated at

SCTIMST TIMed, Kerala
https://www.timed.org.in
timed@sctimst.ac.in

Waferchips Techno Solutions Pvt Ltd., Kollam

https://mybiocalculus.com/

Product - WITALS24: CARDIAC REHABILITATION ECOSYSTEM

Problem addressed - Reduce the mortality rate and secondary stroke prevention for patients who have undergone cardiac surgical procedures.

Product details

Description **-** Wireless multi-wearable medical devices supported by Artificial Intelligence (AI).

Application **-** The WiTALS 24 is a cardiac rehabilitation ecosystem for the smooth recovery of post-operative cardiac patients, which collects and analyses physiological data and provides real-time notification to healthcare professionals.

Value Proposition - India's first affordable and clinically accurate cardiac supervised rehabilitation platform for multiple phases of the recovery process.

Achievements

- Domestic presence in Kerala, Tamil Nādu, and Telangana
- Served around 4000+ patients
- Investments from AIC CCMB, DST, and KickStartup

End users - Stroke patients and post-operative cardiac patients

Founders - Sonia Mohandas
Archu S Vijay

Technology Readiness Level (TRL) - 9

Incubated at

TIMed
Sree Chitra Tirunal Institute for Medical Sciences and Technology
be smart, be a part

SCTIMST TIMed, Kerala
https://www.timed.org.in
timed@sctimst.ac.in

Pankhtech India, New Delhi

https://www.neuphony.com

Product - NEUPHONY

Problem addressed – People are constantly comparing themselves or competing against 8 billion people in every facet of our lives. This is why they are becoming increasingly stressed, and nothing seems to be enough. This constant stress and self-doubt is the reason for the rise in burn-outs, insomnia, etc.

Product details

Description **-** Neuphony works on the unlimited potential of the human mind and aims to unlock it. Neurofeedback has been scientifically proven to be a powerful tool to improve the brain's overall health, including improving memory, sleep quality, and reducing stress and anxiety. Neuphony brings the benefits of neurofeedback to the comfort of people's homes with the help of an Electroencephalogram (EEG) headband and a mobile application. The headband measures the brain's electrical activity, and based on the sensor data, the mobile app recommends meditation techniques to achieve the desired state. Over multiple sessions, it trains the brain on how to achieve the desired state itself.

Value Proposition - The product has 8 uniquely placed EEG Sensors covering 3 lobes, whereas the devices of the competitors focus only on the prefrontal cortex. In addition, the software has an algorithm for artifact (noise) rejection and a Machine Learning (ML) model to recommend customised meditation techniques to users.

Achievements

- Working with industry leaders in mental health and meditation
- Presence in 6 countries
- Growth of 30% each month
- External investments of Rs. 2 crores in seed round

Founders - Ria Rustagi
Bhavya Madan

Technology Readiness Level (TRL) - 8

Intellectual Property – Design registration is done, and method payment under filing

Incubated at

CIIE BUILT AT IIMA

CIIE Regional Innovation Foundation
https://www.startupoasis.in/
chintan@startupoasis.in

Vendaxo (Venture Studio); Dia Happy Health Pvt Ltd., Ahmedabad

www.ador.health

Product - DIA HAPPY PVT LTD.

Problem addressed - People who have diabetes or are on a diet miss their favorite food or have food cravings. ADOR health works on providing a low carbohydrate lifestyle while retaining the flavor and nutrition of food. They endeavor to deliver clinically validated foods suited for Indian taste.

Product details

Description **-** ADOR Health works successfully with the help of talented doctors, skilled chefs, certified dieticians, passionate entrepreneurs, and expert food technologies.

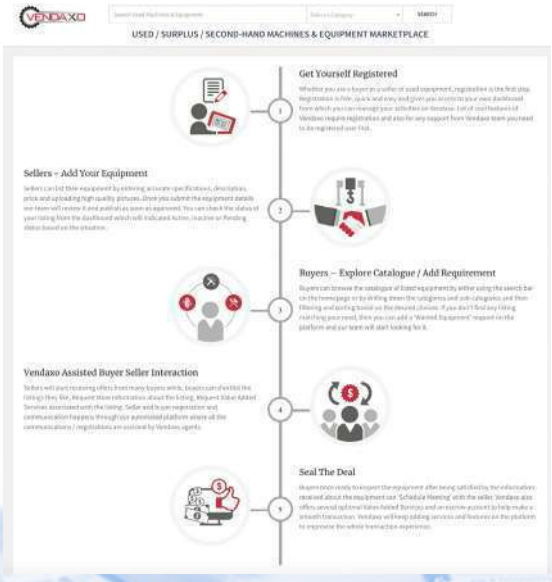
Application - Dia happy Health is building a Clinically Validated ecosystem to put Diabetes Type 2 in remission and reverse obesity. Their solution consists of a novel clinically validated diet plan and a supporting comprehensive technology solution providing a 360-degree health solution for obesity and diabetes.

Value Proposition- Reverse diabetes with lifestyle interventions

Achievements

- National and international presence
- Received Angel funding
- Generated revenue of Rs. 1 crore

End users - More than 800 customers



Founder - Anurag Mishra

Incubated at

Ahmedabad University | VentureStudio

VentureStudio, Ahmedabad, Gujarat
www.venturestudio.in
tanvi.rangwala@ahduni.edu.in

Alfaleus Technology Pvt Ltd., Bengaluru

https://alfaleus.in/

Product - INTELLIGENT VISION ANALYSER (IVA)

Problem addressed – Timely diagnosis of Glaucoma

Product details

Description **-** 90% of Glaucoma goes undiagnosed until severe loss of eyesight in developing nations. State-of-the-art devices include OCT-Optical Coherence Tomography, Fundus Photography, Visual Field Perimetry, Tonometry, or Intra-ocular pressure measurement. However, these devices are big, bulky, fragile, difficult to operate, and expensive. They are available only in tertiary care centres.

Application **–** Alfaleus Technology Pvt Ltd. has developed the Intelligent Vision Analyser (iVA), an eye-testing device for virtual reality (VR) headsets. The company intends to make eye testing more accessible and democratised. Their primary product is visual field testing on a VR headset, a critical test for Glaucoma. In addition, this device also offers tests for visual equity, colour blindness, eye mobility, and so on.

Value Proposition - Alfaleus has developed a product called Intelligent Vision Analyser (iVA). This is a VR headset to evaluate a person's visual fields, which can further be used in the diagnosis and monitoring of Glaucoma. This device uses local normative data suitable for the Indian population and is 10 times cheaper and 100 times more portable than standard equipment and thus, value for money. Intelligent Vision Analyser (iVA) has been clinically tested and validated for over 1000 patients in a clinical setting. Over the last 3 years, two versions of the device have been developed and validated in association with Aravind Eye Hospital, India, and John Hopkins, Baltimore, USA.

Achievements

- More than 60 devices sold
- Domestic presence and planning on global expansion

End users - Ophthalmologists (for diagnosis and monitoring progression), Optometrists, Neurologists/Neuro-ophthalmologists, and anyone who requires Glaucoma testing

Founder - Sandal Kotawala

Technology Readiness Level (TRL) - 8

Intellectual Property - Patent filed

Incubated at

VIT-Technology Business Incubator

VIT TBI, Vellore, Tamil Nadu,
www.vittbi.com
vittbi@vit.ac.in

Waferchips Techno Solutions Pvt Ltd., Kollam

https://mybiocalculus.com/

Product - BIOCALCULUS: An ambulatory cardiac monitor

Problem addressed – Patients with asymptomatic symptoms like syncope, palpitations, dizziness, etc., may be affected by cardiac rhythm abnormalities. Currently available products in the market miss about 70.3% of Arrhythmias.

Product details

Description **-** Wireless wearable medical devices supported by Artificial Intelligence (AI) and cardiology-certified reports.

Value Proposition - India's first personal external loop recorder for easily Atrial Fibrillation and Ventricular Tachycardia findings.

Achievements

- Domestic presence in Kerala, Tamil Nādu, and Telangana
- Served around 4000+ patients
- External investments from AIC CCMB, DST, KickStartup

End users - Suspected arrhythmia patient and stroke evaluation

Founders - Sonia Mohandas
Archu S Vijay

Technology Readiness Level (TRL) - 9

—

Incubated at

SCTIMST TIMed, Kerala
https://www.timed.org.in
timed@sctimst.ac.in

INFORMATION
TECHNOLOGY

Startup Name
Transerve Technologies Pvt Ltd., Goa
Protinus Fashion Networking Pvt Ltd., Bengaluru
Kaahlian Technology Pvt Ltd., Mumbai
Utvyakta Solutions, Coimbatore
Pixuate, Bengaluru
The star in me, Hyderabad
SCERMLIND Healthcare Innovations Pvt Ltd., Chennai
Truckhall Pvt Ltd., Kolkata
My3DMeta Pvt Ltd., Bengaluru
Antrepriz Solutions Pvt Ltd., Madhya Pradesh
Blinkin Technologies Pvt Ltd., Bengaluru
Elementik Technologies Pvt Ltd., Pune
Sustainable Reference Analytics Pvt Ltd. (SustLabs), Mumbai

Transerve Technologies Pvt Ltd., Goa

www.transerve.com

Product - TRANSERVE ONLINE STACK

Problem Addressed - Transerve Online Stack helps solve complex problems related to urban setups, such as inventorying urban assets, revenue enhancement, land records modernization, etc. It facilitates an increase in municipal revenue and improves civic service delivery by helping urban local bodies maintain an accurate database of properties on a spatial platform.

Product details

Description – Transerve's online stack helps its clients to combine their data with Transerve's proprietary geo-enriched data and powerful Artificial Intelligence (AI)-driven algorithms to gain business insights for their organisation.

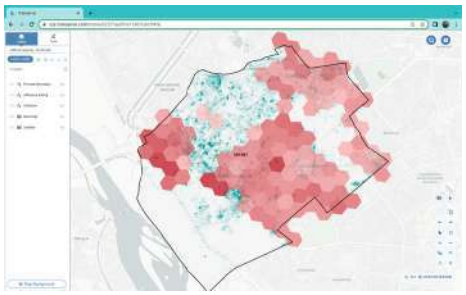
Application - Transerve is an award-winning startup that offers geospatial analysis through its platform 'Transerve Online Stack' to visualise and process the data for insights. Transerve Online Stack Platform is available for individuals and enterprises to share spatial data and map visualisation with their team and the public through Map Application Program Interface (APIs).

Value Proposition - A unified location intelligence platform with proprietary geo-enriched data and powerful AI-driven algorithms.

Achievements

- Transerve currently has offices in 3 locations in India
- Transerve has grown rapidly and has generated 120+ job opportunities
- Generated revenue of Rs. 40 crores to date
- Raised an external investment of Rs. 10.45 crores to date

End users - Banking, NBFCs, Real Estate, Retail Clients. It has 50+ customers, including PwC, EY, SAIL, etc.



Founders - Amarsh Chaturvedi
Ashwanii Rawat

Technology Readiness Level (TRL) - 9

Intellectual Property - Patent in India

Incubated at

Centre for Incubation and Business Acceleration, Goa
www.ciba.org.in
info@ciba.org.in

Protinus Fashion Networking Pvt Ltd.,

Bengaluru

www.6degree.co

Product - HONEYCOMB

Problem Addressed - 6Degree provides retail management services to designers and fashion brands through its SaaS platform 'Honeycomb'.

Product details

Description **-** The platform 'Honeycomb' allows customers to retail online as well as through multi-brand stores across the country. It generates intelligent insights that enable brands to make informed decisions on production and distribution based on consumer behaviour.

Application **-** 6Degree is an award-winning startup that provides an end-to-end E-commerce Growth Enablement Platform called 'Honeycomb' for lifestyle retail brands. The platform allows brands to build, operate, and manage their E-commerce website, along with a centralized inventory and order management across all digital points of sales.

Value Proposition - The product is elastic and scalable based on real-time demand and provides on the fly integration across 3rd party marketplaces, warehouses, and retail stores.

Achievements

- 6Degree currently has its base in India
- It has grown rapidly and has generated more than 130 job opportunities
- Has generated a revenue of Rs. 58 crores to date
- Has raised an external investment of Rs. 24 crores to date

End users - Lifestyle Retail brands of India (60+ customers including Ethnicity, Madame, Spykar, Underjeans, etc.)

Founders - Nikhil Hegde
Amit Bhardwaj

Technology Readiness Level (TRL) - 9

—

Incubated at

ciba

Centre for Incubation and Business Acceleration, Mumbai
www.ciba.org.in
info@ciba.org.in

Kaahlian Technology Pvt Ltd., Mumbai

www.rozgarkhoj.com

Product - ROZGARKHOJ

Problem Addressed - Blue-collar job seekers do not know how to make their CVs and lack technical capabilities. Rozgarkhoj helps blue-collar job seekers create digital profiles and connect directly with employers.

Product details

Description **-** Rozgarkhoj.com is an integrated web and mobile-based digital marketplace for entry-level and blue-collar job seekers.

Application **-** Rozgarkhoj helps blue-collar job seekers connect to the relevant job opportunities spread across their choice of skill and locations.

Value Proposition - Organised data of Blue-Collar job seekers; Technology-enabled matchmaking between job provider and job seeker with minimal data points.

Achievements

- Registered job seeker base of more than 3 million people
- Onboarded more than 10,000 Job providers
- Provided jobs to over 21000 Blue-collar workers

End users - Blue-collar job seekers, job providers

Founders - Rajani Kant
Manorma Kumari

Technology Readiness Level (TRL) - 9

Intellectual Property - Applied for trademark

—

Incubated at

ciba

Centre for Incubation and Business Acceleration, Mumbai
https://cibamumbai.org.in/
ceo@ciba.org.in

Utvyakta Solutions, Coimbatore

https://utvyakta.com/

Product - KOMPRESS.ai

Problem Addressed - Very few system integrators in the space have focussed on this industry. Compressor Original Equipment Manufacturer (OEM) do not offer a complete solution, and mid-sized Compressors OEMs do not have the know-how to build on their own. Further, they lack real-time information for maintenance providers.

Product details

Description **-** Seamlessly factory fits or retrofits to any air compressor, regardless of age, provides 24×7 predictive maintenance, and reduces associated energy costs by a minimum of 15%.

Application **-** Enabling intelligence for air compressors and Real-time analytics for efficient performance

Value Proposition - Kompress.ai is offered as a white labelled solution to mid-sized OEMs, so they can market their solution and retrofit existing installations for large OEMs as their solution is only for new machines.

Achievements

- Finalists for the RTX Innovation Challenge in Computer Vision
- Received grant from India-Sweden Collaborative Industrial Research & Development Programme
- Presence in Coimbatore, Bangalore, and Stockholm
- Raised external funding of USD 250,000

End users - Compressor distributors and OEMs in Asia, Europe, USA

Founder - Akshay Ramachandran

Technology Readiness Level (TRL) - 9

Intellectual Property - Over 80% market share of key compressor OEMs in India; Aligned to UN SDG Goal of Industries, Innovation, and Infrastructure

Incubated at

cultiv8

CIET-TBI, Coimbatore
www.thecultiv8.com
business@thecultiv8.com

Pixuate, Bengaluru
https://pixuate.com/

Product – PIXUATE-COCOSLABS SERVICE PLATFORM

Problem Addressed - No intelligent platform to help existing video capturing infrastructure monitor, track, and detect efficiently.

Product details

Description **-** CCTV agnostic software that can be integrated with ease for multiple use cases in surveillance, monitoring, and tracking by enterprises.

Application **-** A full stack video analytics platform for enterprises that has capabilities such as Number Plate Recognition (NPR), Facial Recognition, Thermal detection, etc.

Value Proposition - Accuracy and ease of integration with existing video infrastructure

Achievements -

- Both domestic and international presence
- Expanded team to 21 members and clientele to about 4 since commercialisation
- Generated revenue of Rs. 81 lakh in FY22
- Raised venture capital of Rs. 5 crores from Succeed Ventures and Mumbai Angels

End users - Enterprises, Infra companies, Government bodies

Founders - Akshata Kari
Prathvi Palekar

Technology Readiness Level (TRL) - 9

Incubated at

CIIE.CO, Ahmedabad
https://ciie.co/
neeraj@iima.ac.in

The star in me, Hyderabad

https://thestarinme.com/

Product - FEMMEVISTA TECHNOLOGIES (The Star In Me)

Problem Addressed - There is a significant gender gap in the corporate workforce, and the leakage dominates the experience group of 5-15 years women professionals. The loss in human capital wealth due to gender inequality is USD 160 Trillion. Based on the company's research and focus group conversations with women talent across countries, they concluded that there are a lot of barriers hindering women's career advancement, contributing to ~23% of women in the workforce in India and just 4% in the leadership. This is not just a problem in India; a similar trend is seen in most parts of the world. Women talent lack a safe place for having conversations to seek help and scale their careers to match up to their potential. Through the venture, the company intended to reduce the talent leakage at organizations with timely career accelerators, connections, and resources.

Product details

Description **-** The 'star in me' is the first global career advancement platform for women's talent that lets women choose from a variety of career advancement services instead of searching on multiple channels. Services are provided through a 3-sided technology platform that connects women's talent, organizations, and vetted service providers.

Value Proposition - The platform brings leadership experts from various countries to offer workshops on leadership skills, soft skills, and select domain skills. So far, the platform has offered over 350 sessions to women across the globe. These sessions are posted on the platform, and women can register and join these sessions. The platform has rich content on several topics in the form of blogs, articles, and videos that women can leverage at their own pace to upskill themselves.

Achievements

- Currently offers services across 65+ countries
- TSIM offers services to over 9000 professionals through 90+ global experts. The platform has done over 350 programs to date in empowering women professionals across the globe
- It has grown 3 times in the last 12 months in terms of partners onboarded, professionals served, and the presence in countries outside of India
- Raised funding of USD 400K from a US Angel Investor, MN2P Holdings LLC

Founders - Mahua Mukherjee
Uma Kasoji

Technology Readiness Level (TRL) - 9

Incubated at

DLabs Incubator Association
isbdlabs.org
contact@isbdlabs.org

SCERMLIND Healthcare Innovations Pvt Ltd., Chennai

www.atiumsports.com

Product - ATIUM SPORTS

Problem Addressed - Digital penetration in the field of sports is very low. According to a recent study, about 2.5 million data points of an individual athlete collected currently can increase to a tune of 2500 million data points by the year 2025. If such extensive data on athletes is collected but not put to the best use, the objective of aspiring to become a sporting nation will become difficult. With ATIUM, the implementation of sports science throughout the athletes' lifecycle is made simpler. ATIUM enables collaboration within the sports team, and all stakeholders can collaborate on a single layer.

Product details

Description **-** ATIUM is India's first technology platform in the space of sports that enables High-Performance solutions for athletes and sports teams. The company achieves this by simplifying sports science and technology. ATIUM empowers coaches, organisations, and leaders to monitor athlete training, optimize workouts, and seamlessly collaborate with physiotherapists, medical teams, and sports scientists on a single platform. With its athlete-first design, sports-science knowledge base, and technology, the ATIUM platform empowers athletes to unleash high performance.

Application **-** In sports, many developing countries have overlooked Sports Science. Currently, countries such as India have started giving importance to Sports Science. Implementing sports science can be done successfully with technology. In sports, though large quantities of data are collected, most of the data lie in silos, i.e., in paper, excels sheets, or data collecting devices. If not used when needed, data will not enable the teams to make informed decisions. ATIUM's technology is the solution for this challenge.

Value Proposition - ATIUM is the Salesforce for sports.

Achievements

- India and France Business-to-Business (B2B) SaaS
- Currently being used by the SAI National Center of Excellence (NCOEs)
- In discussion with Sports Authority of India to onboard ATIUM to all their NCOEs
- Raised investment from Angel investors

End users - Sports Teams, Sports Clubs, Sports Bodies (Government), Federation, and Academies

Founders - Murugesh Kumar SK
Neelkanth Raju

Technology Readiness Level (TRL) - 9

Intellectual Property - 2 Trademarks, 1 Patent pending

Incubated at

MaDeIT Innovation Foundation
www. madeit.iiitdm.ac.in
ceo_madeit@iiitdm.ac.in

SuperProcure

Transportation Management Simplified

Truckhall Pvt Ltd., Kolkata

https://www.superprocure.com/

Product - SUPERPROCURE

Problem Addressed - The daily processes for the logistics team are manual and time-consuming. The data of the multiple processes are also in silos. The product helps manufacturing and engineering companies digitize their logistics operations which directly contribute to the bottom line by reducing cost and top line through better customer service.

Product details

Description **-** SuperProcure is a cloud-based solution that digitizes Logistics Workflow and daily Spot Freight Negotiations for manufacturing and engineering firms. This solution helps reduce logistics and freight costs and improves visibility and collaboration.

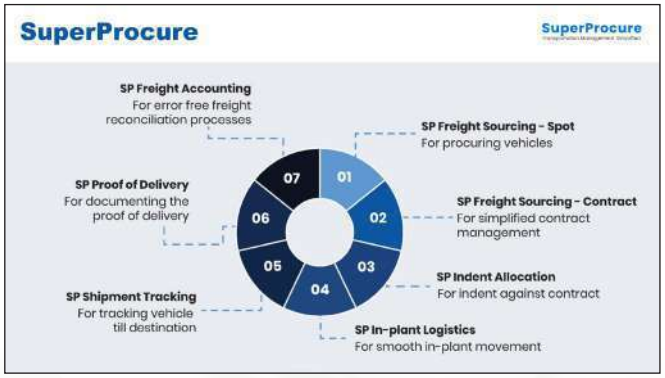
Application **-** SuperProcure makes the lives of the logistics team easier, adds value, and helps establish a fair process. It automates the daily logistics operations - reducing logistics costs, improving employee productivity, and increasing visibility, collaboration, and transparency in day-to-day operations. This creates an immediate impact on the entire supply chain and all stakeholders.

Value Proposition – The product can be implemented at any level/scale of logistics workflow digitization of an organization, enabling seamless real-time collaboration.

Achievements

- Over more than 100 paid enterprise clients
- Domestic presence
- Growth of 2 times year on year
- Received external investments of Rs. 17.18 crores

End users - Tata Consumer Products, Goodluck, Rallis, Navabharat, Birla Corporation, ITC, Pepsico, KEI, Anmol, Schwing Stetter



Founders – Anup Kumar Agarwal
Manisha Sharaf
Varun Biyani

Technology Readiness Level (TRL) - 9

—

Incubated at

IIM CALCUTTA INNOVATION PARK

IIM Calcutta Innovation Park
https://iimcip.org/
subhrangshu.sanyal@iimcip.org

My3DMeta Pvt Ltd., Bengaluru

www.my3dmeta.com, www.my3dselfie.com

Product - Technology platform to create avatars, accessories, characters for gaming, animation, and metaverse

Problem Addressed - 3D modelling is a very time-consuming process. To convert a 2D image to a 3D model, it takes approximately 27 hours, and to convert a 2D image of a human to a 3D model, it takes more than 60 hours. In addition, creating a replica is very difficult. Normally, one could achieve 50-60% accuracy compared to the photo after investing 35-50 hours for a human model.

Product details

Description – The company is building the most powerful 3D modelling technology platform, which will enable users to create the highest, inter-operable 3D models in less than a minute, which currently takes more than 60 hours.

Application – A faster, better, and cheaper technology platform for the creation of avatars, accessories, characters for gaming, animation, and metaverse. All 3D models will be interoperable on any platform.

Value Proposition - Upon the completion of the proprietary process and construction of the automated technology, the technology will be able to convert any 2D image into a minimum of 90% accurate result in less than 10 hours, and with automation, it will do so in less than a minute.

Achievements

- Partnered with Sony and Samsung to build their metaverse
- Delivered to over 40 countries
- Received the licensing rights to create, sell, and distribute Charlie Chaplin figurines and 3D models worldwide from the Chaplin family; Bob Ross; Thomas Edison (in final talks)
- Both Business-to-Business (B2B) and Business-to-Consumer (B2C)
- Delivered to clients like Marvel, McDonald's, Biomarin, Henkel, EPL, Harvard University, Cardiff University
- Raised follow on funding of Rs. 11 crores

Founder - Harsha P Deka

Technology Readiness Level (TRL) - 9

Intellectual Property - Applied for the process of identifying human feature

Incubated at

IIM Calcutta Innovation Park
https://iimcip.org/
subhrangshu.sanyal@iimcip.org

Antrepriz Solutions Pvt Ltd., Madhya Pradesh

https://antrepriz.com/product

Product - EKA Products

Problem Addressed - Handling employee travel and reimbursement is difficult, and it is the second highest indirect expense on the companies' balance sheet. Corporates do not have control or visibility over employee spending. And employees face hurdles with reimbursement, out-of-policy violations, and face consistent demotivation. Corporates spend up to 20% more due to low control, policy overflows, frauds, and higher supplier costs.

Product details

Description **-** EKA product features include modules where employees can do all discretionary spending like booking flights, hotels, buses, Ola, QR payments, and card swipes using EKA App/desktop. Companies can control spending/bookings in real-time using dynamic policy control with fully configurable workflows.

Application **-** Antrepriz is developing a Unified Payments Interface (UPI) Application for corporates/businesses to manage business travel and spending in real-time with a rewarding mechanism through the use of Artificial Intelligence (AI) technology.

Achievements

- Market traction of Rs. 50 lakh
- Participant in Global Investment Meet
- Growing and adding features regularly
- Raised external investments of Rs. 700 lakh

End users - Business-to-Business (B2B), Corporates, Companies

Founder - Prashant Kushwah

Technology Readiness Level (TRL) - 9

—

Incubated at

IIT MANDI CATALYST
https://www.iitmandicatalyst.in/
iitmandicatalyst@gmail.com

Blinkin Technologies Pvt Ltd., Bengaluru

www.blinkin.io

Product - Blinkin

Problem Addressed – Blinkin is a simple App that helps understand and solve technology problems visually, remotely, and without drama. The users do not need to download and install an App or create an account. It enables real-time collaboration with one or multiple users. The users can collaborate over chat and request data with smart forms, share videos with one click, search for 'How-To-Manuals' during a live call, and receive remote expert guidance with live expert pointer and AP Drawings. The App is cloud-based for quick and easy global deployment and maintenance and can capture visual evidence and live location on service tickets for download. It is device-agnostic and can be used on the most common smart devices and platforms (iOS, Android/MacOS, Windows 10 with the highest security demands. The App integrates the user database and application infrastructure through the Application Programming Interface (API). It collects the data as ROI collect and stores images and videos for building a knowledge base or training Artificial Intelligence (AI) models.

Product details

Description **-** The ability to physically experience or utilise skills at another location is restricted by the barriers of time and distance. It is crucial to bring needed skills to the people who need them as urgently as they are required. Blinkin empowers support engineers to deliver exceptional technical support anywhere, every time.

Currently, they offer two solutions:

1. **Scotty** - An AI and Augmented Reality (AR)-powered live video calling system. The agent can handhold users and guide them using augmented on-screen annotations and live pointers overlayed on their screen. This helps seamlessly transport human skills and knowledge to the exact location where and when needed.

2. **Houston** - An AI-powered self-service system powered by a Virtual Agent. This transfers the expertise of senior engineers to the user over their smartphone with just a click of a button 24×7. As of today, Blinkin is active in 43 countries and growing.

Application **-** It enables fraud-proof capture of videos and images, allows live and time-shifted documentation, is remote, and does not require App download or registration.

Value Proposition - It allows real-time collaboration (browser-based video call, interactive drawings, integrated chat, media library, case documentation), time-shifted collaboration (Structured data request via SMS, video, image, file exchange >100MB, GPS location, live recordings) and automation/self-service (24×7 digital assistant, step-by-step routines (SOP), data collection and visual guidance).

Achievements

- Winner of multiple awards: Start Zuschuss Germany, 2019; IIGP Award, 2019; Insurtech Nasscom, 2019; Startup of the Year GIF, 2019; Global AI Start-up, 2020; SAASTOCK, 2020

Founder - Harshwardhan Kumar

Technology Readiness Level (TRL) - 9

Incubated at

KIIT-TBI, Bhubaneswar
www.kiitincubator.in
tbi@kiitincubator.in

Elementik Technologies Pvt Ltd., Pune

www.byteseal.in

Product - BYTESEAL

Problem Addressed - Cybercrime is increasing at an alarming rate in the entire world. The statistics suggest that 80% of cyberattacks are caused due to human factors (e.g., setting up weak passwords, sharing passwords, falling prey to phishing attacks, etc.). Byteseal addresses this problem with a unique, first-of-its-kind solution.

Product details

Description **-** Byteseal Biometric ID - A compact, portable, and wireless authentication device for safe and convenient internet logins.

*Application***-** Byteseal Biometric ID uses the world's most advanced and secure biometric authentication technology in combination with wireless interfaces such as Bluetooth and Near Field Communication (NFC). Because it is easily portable, users can log into their online accounts with just a tap of a fingerprint - eliminating all human vulnerabilities in cybersecurity. The device is also helpful for other authentication purposes like online payments, e-KYC, etc.

Value Proposition- Secure internet logins with just a tap of the fingerprint.

Achievements

- Commercially released in May 2021 in the Business-to-Consumer (B2C) domain. Currently working on 2 Business-to-Business (B2B) orders and 1 pilot with a major Internet Service Provider (ISP)
- Domestically available
- Generated revenue of Rs. 6.5 lakh
- Apart from DST SEED, the promoter group has invested approx. Rs. 60 lakh in the company

End users - General internet users (B2C), Corporate users (B2B) majorly from sectors such as IT/ITES, Financial Services, etc.

Founder - Nikhilesh Wani

Technology Readiness Level (TRL) - 9

Intellectual Property - 2 Utility Patents granted

—

Incubated at

SCITECH PARK

Science and Technology Park, Pune
www.scitechpark.org.in
stp@scitechpark.org.in

Sustainable Reference Analytics Pvt Ltd. (SustLabs), Mumbai

https://www.sustlabs.com

Product - OHM ASSISTANT

Problem Addressed - Ohm Assistant shows the electricity consumption of home appliances on the mobile phone in real-time. It helps understand the daily usage and billing of appliances and sends a notification in case of sudden surges in power consumption.

Product details

Description **-** Ohm Assistant is a real-time energy monitoring device for a residential household. It is an Internet of Things (IoT) based product that can detect appliance level electricity consumption just by smart meter data.

Application **-** Inspiring energy efficiency at homes, Ohm Assistant positioned as 'FitBit' for homes, is an electricity activity tracker designed to help become energy wiser and ultimately make homes smarter.

Value Proposition - Viewing real-time energy usage; Data-driven decision making; Detecting unwanted behavior of appliances; To ensure data transparency and seamless demand-side management, around 80+ utilities in India can be leveraged to attain a sustainable future.

Achievements

- Currently in more than 70 cities in India
- Selected for Google Developers Launchpad, 2020; CISCO CIIE IoT accelerator, 2019; Oracle Global Startup Ecosystem, 2018
- Sold close to 1500 bots with an accuracy level of 90%
- Signed contracts worth USD 2.5 million
- Raised external investment close to USD 450K

End users – Business-to-Business-to-Consumer (B2B2C) includes Electric Switch gear companies and Distributors

Founders - Kaushik Bose
Rohan Gupta
Soumya Bhattacharya

Technology Readiness Level (TRL) - 9

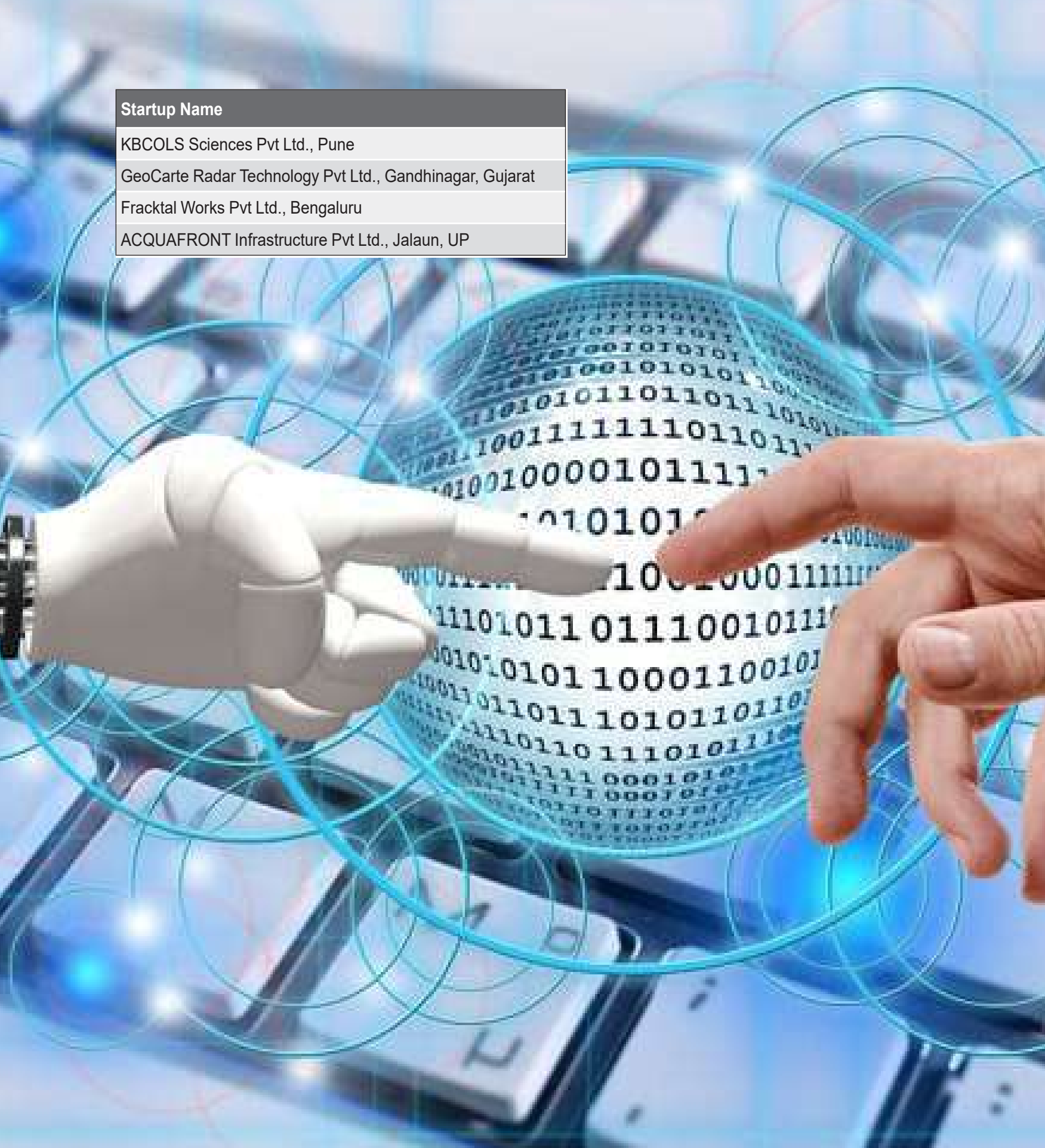
Intellectual Property- 1 provisional patent filed

Incubated at

IIT Bombay
SINE
Business Incubator

SINE IIT Bombay
https://sineiitb.org/
sine@sineiitb.org

MANUFACTURING
TECHNOLOGY
Automation
machine



Startup Name
KBCOLS Sciences Pvt Ltd., Pune
GeoCarte Radar Technology Pvt Ltd., Gandhinagar, Gujarat
Fracktal Works Pvt Ltd., Bengaluru
ACQUAFRONT Infrastructure Pvt Ltd., Jalaun, UP

KBCOLS Sciences Pvt Ltd., Pune

www.kbcolssciences.com

Product - MICROBIAL COLOURS: THE FUTURE OF SUSTAINABLE NATURAL COLOURS

Problem Addressed - The prolonged use of these synthetic colors has led to many ecological and economic challenges. Today almost 20% of freshwater pollution is caused by textile dyeing and treatment. Moreover, the hazardous waste generated during synthesis, along with concerns related to safety, has thus fostered fresh enthusiasm in the search for alternatives.

Product details

Description **-** KBCols is sourcing and isolating natural brown, blue, green, and pink colours from micro-organisms and applying them in textiles and personal care. The bio-colours are a universal drop-in solution that can be used to dye most natural and synthetic fibers, including cotton, linen, wool, viscose, silk, polyester, ramie, and different blends.

Value Proposition - The colours are water-soluble and natural with excellent reproducibility and better performance/fastness parameters. Waste sources are used as raw materials to produce colours (value-added products) with numerous applications.

Achievements

- KBCols is working with leading brands globally in Europe, Japan, Sri Lanka, and India
- KBcols outfits were launched in Amsterdam in collaboration with Designers Hul Le Kes and FFG (Fashion for good)
- KBCols has grown from a lab of 200 sq. ft. to a state-of-the-art pilot facility of 2000 sq. ft.
- KBcols closed seed round in 2020 led by leading investors such as Chiratae ventures, Axilor ventures, DERBI Foundation

End users - KBCols is a Business-to-Business (B2B) serving various brands/ manufacturers in textiles, personal care, and cosmetics.

Founders - Dr Vaishali M. Kulkarni
Dr Arjun Singh Bajwa

Technology Readiness Level (TRL) - 7

Intellectual Property - Process ongoing for permission with NBA (National Biodiversity Authority)

Incubated at

DERBI Foundation
https://derbifoundation.com
info@derbifoundation.com

GeoCarte Radar Technology Pvt Ltd.,

Gandhinagar, Gujarat www.geocarte.in

Product - GROUND-PENETRATING RADAR (GPR) SURVEY TECHNOLOGY

Problem Addressed - Analysis and interpretation of GPR weak signal data have been GeoCarte's forte to ensure accurate mapping of underground structures from its inception.

Product details

Description **-** Underground Utility Mapping, Highway Inspection, Archeological Investigation, Concrete Structure Inspection, Ground Water Table Mapping.

Application **-** GPR Technology is a non-destructive electromagnetic wave technology used to scan the underground infrastructure without digging. GPR Technology uses high-frequency electromagnetic waves that go deep inside the earth and get reflected when they encounter anomalies or sub-surface utilities, i.e., changes in the material.

Value Proposition - The Company leverages its expertise in complex situations or where there is high moisture content in the soil.

Achievements

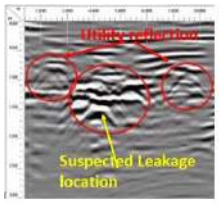
- Operating from IIT Gandhinagar
- Present in the market for the last 6 years and serving pan India

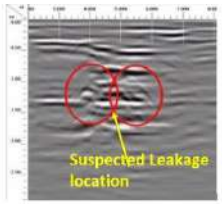
End users - Archaeological Survey of India, Indian Railways, National High-Speed Rail Corporation Limited, Indian Navy, UPMRC, GMRCL, Ahmedabad Municipal Corporation, AECOM India Pvt Ltd, Lea Consultancy, JMC Project (I) Ltd, L&T, NCC Ltd, Shapoorji Pallonji & Co. Pvt Ltd., Tata Projects Ltd., Bureau Beritas, etc.

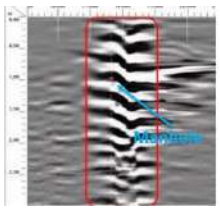
Founder - Silky Agrawal

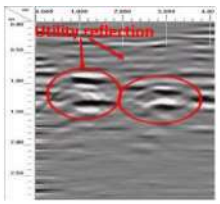
Incubated at

IIEC, Indian Institute of Technology, Gandhinagar
www.iieciitgn.com
iiec@iitgn.ac.in









Fracktal Works Pvt Ltd., Bengaluru

www.fracktal.in

Product - 3D PRINTER AND ITS ACCESSORIES

Problem Addressed - Additive manufacturing was initially used for rapid prototyping to make visual and functional prototypes. It can significantly speed up product development and market entry.

Product details

Description **-** Julia series of 3D Printers from Fracktal make Fused Deposition Modelling (FDM) 3D Printing easy to use without compromising on performance and features, making it one of the most versatile and value for money 3D Printers.

Achievements

- Domestic presence
- More than 1000 installations
- External investment of Rs. 1 crore

Founder - Vijaya Raghav Varada

Technology Readiness Level (TRL) - 9

Incubated at

MANIPAL UNIVERSAL TECHNOLOGY BUSINESS INCUBATOR

MUTBI Manipal
www.mutbimanipal.org
mutbi.mit@manipal.edu

ACQUAFRONT Infrastructure Pvt Ltd.,

Jalaun, UP

www.acquainfra.com/

Product - STEEL-INTEGRATED FLOATING JETTY PUMP PONTOONS

Problem Addressed - Expensive High-Density Polyethylene (HDPE) blocks throughout the area render conventional solutions uneconomical. They have a limited berthing capacity, hence restricted to small-sized cruise vessels, and they incur large fluctuations due to the occurrence of seasonal/tidal fluctuations in water level, thus challenging the safety of onboard personnel. There is inadequate freeboard for passengers approaching from/to larger sized vessels, thus further challenging their safety. The flexible anchorage systems also challenge the safety of the structure in adverse climatic conditions.

Product details

Description **-** Steel Integrated Floating Jetty (SIFJ) is basically a composite construction; different components are made of different materials. SIFJ consists of 3 components – Deck structure, Mild Steel (MS) sheets and Floaters.

Application **-** Existing HDPE-based floating jetty modular system of floating jetties have been optimized. The solution, i.e., Steel-Integrated Floating Jetty, incorporates flexibility and rigidity to deal with the incurring wave forces while simultaneously providing utmost stability for the onboard operations.

Value Proposition - High-Cost Effectiveness; Durability of 25 years with a 1-year warranty; Load Carry Capacity up to 2T/m^2; Size customizable as per requirement; High Modularity; Easy and Cost-effective Maintenance & Replacement; Logistics & Ease of Handling due to high modularity; Variable anchorage types (deck to shore, deck to bed, etc.); Aesthetically suited and rigid appearance; Customizable arrangements with un-compromised stability; A further step in the direction of passenger and onboard crew safety

Achievements

- Both domestic and international presence
- Generated revenue of more than Rs. 1.5 crores in FY20-21 and more than Rs. 12 crores in FY21-22
- Generated 24 permanent and more than 200 contractual jobs
- External investment of Rs. 4.3 crores from NRDC, Engineers India Ltd., Small Industrial Development Bank of India

End users - DIPR, Government of Punjab, SpiceJet Technic (P) Ltd, Public Health & Engineering Division, Government of Odisha, Uttar Pradesh Rajkiya Nirman Nigam, M.P. State Tourism Development Corporation, Beohari water supply scheme, NTPC

Founders - Ankit Patel
Achin Agrawal

Technology Readiness Level (TRL) - 9

Intellectual Property - 1 patent granted and 1 filed

—

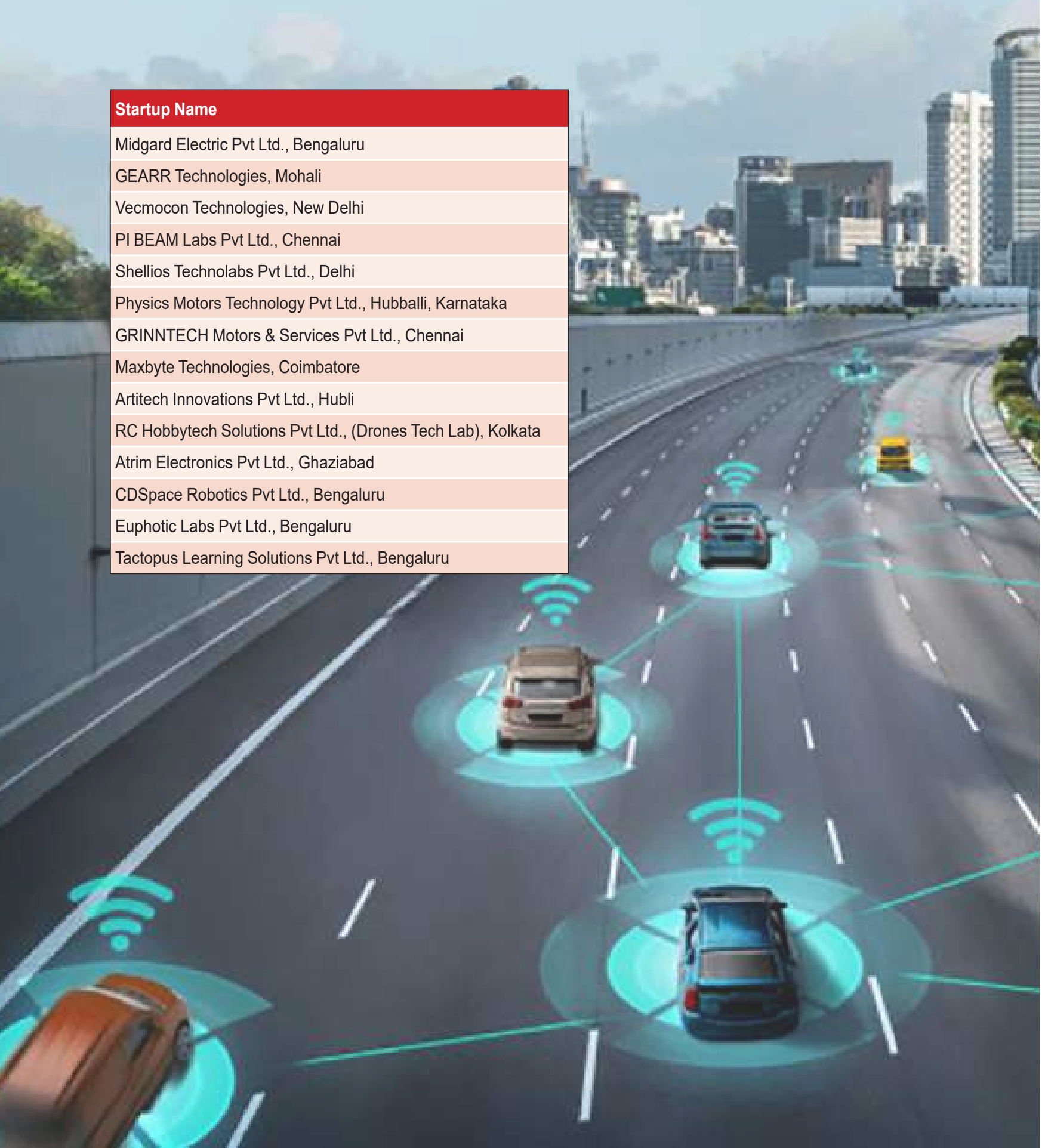
Incubated at

STARTUP INCUBATION AND INNOVATION CENTRE IIT KANPUR

FIRST SIIC IIT Kanpur
https://siicincubator.com/
siic@iitk.ac.in

MOBILITY
&
E-MOBILITY

Startup Name
Midgard Electric Pvt Ltd., Bengaluru
GEARR Technologies, Mohali
Vecmocon Technologies, New Delhi
PI BEAM Labs Pvt Ltd., Chennai
Shellios Technolabs Pvt Ltd., Delhi
Physics Motors Technology Pvt Ltd., Hubballi, Karnataka
GRINNTECH Motors & Services Pvt Ltd., Chennai
Maxbyte Technologies, Coimbatore
Artitech Innovations Pvt Ltd., Hubli
RC Hobbytech Solutions Pvt Ltd., (Drones Tech Lab), Kolkata
Atrim Electronics Pvt Ltd., Ghaziabad
CDSpace Robotics Pvt Ltd., Bengaluru
Euphotic Labs Pvt Ltd., Bengaluru
Tactopus Learning Solutions Pvt Ltd., Bengaluru



Midgard Electric Pvt Ltd., Bengaluru

www.midgardelectric.com

Product - MIDGARD ELECTRIC

Problem Addressed - There is an absence of enough charging facilities in the right places that can cater to multi-brand vehicles, an absence of enough electric grid to support trouble-free operations, and difficulty in identifying charging stations in proximity.

Product details

Description **-** Midgard is an Electric Vehicle (EV) Charging Service Company that installs and maintains electric vehicle charging stations with multi-brand charging machines ranging from 2 KW to 15 KW. The charging stations can serve 2, 3, and 4-wheelers. EVCSCO model operates as 'Hardware as a Service'. An associated easy-to-use mobile application helps users to easily identify, navigate, and connect to a charging facility. The app also helps users with faster payments. Midgard also developed E-Mob, a prototype of an electric 3-wheeler.

Application **–** The company provides multi-brand charging stations for 2, 3, and 4-wheelers. It operates machines under the energy service company model (Hardware as a Service), and a Smart App connects the hardware with software to control the entire system and ensure hassle-free charging and payment. The backend system with dashboard and analytics is integrated with dedicated admin controls.

Value Proposition -

- Multi-brand charging infrastructure
- EVCSCO Model- Operates as per contract for a minimum number of vehicles to be charged per day by the fleet operator
- Revenue share/rental scheme option

End users - Public parking spaces, bus terminals, hospitals, metro parking, parking aggregators, electric auto rickshaw hubs, EV service points, educational institutions, and fleet operators

Founder - Abhijith Vijayan

Technology Readiness Level (TRL) - 9

Incubated at

Amrita TBI
www.amritatbi.com
info@amritatbi.com

GEARR Technologies, Mohali

https://gearrtech.wixsite.com

Product - THE HAWKER

Problem Addressed - There was a need for innovation in bicycles to promote and enhance the usage of bicycles for exercise, leisure, and travelling purposes. People have lost interest in bicycles due to their conventional designs, lack of gadgets, and limited usability.

Product details

Description **-** Gearr Technologies has surprised the market with a variety of innovative bicycles and marketing plans, created with the greatest degree of precision and care for the customers. The bicycle design and systems have been continuously improved with extensive research and the use of modern manufacturing technologies. The Hawker bicycle comes with a unitary tube frame, 21/24 gear combinations, and a lifetime guarantee of the frame.

Application **-** This company manufactures bicycles with innovative designs and aesthetic looks, creating interest among the general public. The use of modern gadgets such as the Global Positioning System (GPS) tracker increases usability and promotes health and fitness.

Value Proposition - Innovative design and aesthetic look with different colour options. Bicycles are fitted with modern accessories such as side mirrors and gadgets such as GPS trackers.

Achievements

- Market traction is very high
- Presence in both domestic and international markets
- Growth of over 200%

End users - The company has large customer groups such as children, athletes, sportsperson, young students, corporate employees, and senior citizens.

Founder - Tirlok Singh

Technology Readiness Level (TRL) - 9

Intellectual Property - Design Patented

Incubated at

Chandigarh University TBI, Mohali
https://cutbi.in
tbi@cumail.in

Vecmocon Technologies, New Delhi

https://www.vecmocon.com/

Product - VEHICLE INTELLIGENT MODULES

Problem Addressed - Unavailability of the vehicle intelligent modules for the different components of Electric Vehicles (EV) behaves as a roadblock in ensuring the safe and high performance of the vehicle.

Product details

Description **-** Vecmocon caters to the entire ecosystem of EVs, such as motor power controllers, battery management systems, vehicle intelligence modules, cloud connectivity, etc., with specialized components for high-performance vehicles. Vecmocon provides battery packs with all thermal and structural considerations, battery management systems, and Machine Learning (ML) algorithms for battery management design of computationally in-expensive system-local ML algorithms, which run on Rs. 100 micro-controller.

Application **-** Complete Vehicle intelligence and health monitoring solution with Critical battery data collection and monitoring such as cell voltages, temperature, the current health of the Battery, and BMS. Vecmocon also provides solutions for intelligent vehicles, including Keyless Entry, Preventive and Predictive Maintenance, User Adaptive Algorithms, Remote diagnostics, Fleet Management, etc.

Value Proposition - Complete ecosystem for the vehicle intelligence of EV

Achievements

- More than 25 business customers have been served
- Received external funding of Rs. 3.5 crores
- Generated revenue of Rs. 5 crores

End users - EV Manufacturers, Original Equipment Manufacturers (OEMs)

Founder - Aadarsh Balram

Technology Readiness Level (TRL) - 9

Intellectual Property - More than 10 patented technology for E-Mobility Solutions

Incubated at

FITT-IIT Delhi
https://fitt-iitd.in/
fit.incubator@gmail.com

PI BEAM Labs Pvt Ltd., Chennai

https://www.pibeam.com/

Product - PIMO, E-TRIKE, E-CART

Problem Addressed - To accelerate EV adoption and build sustainable and affordable transportation technology.

Product details

Description **-** Manufactures variants of solar electric manual trikes to move goods and passengers for private and public workspace applications.

Application **-** PiMo: Pedal-assisted electric bicycle at a speed of 25 kmph; E-trike: Pedal-assisted E-trike for material handling and carrying passengers; E-Cart: Logistics service.

Achievements

- Pan-India presence
- External investments of Rs. 21.84 crores in seed series led by IPV Investors, GAIL India, and Eagle 10 Venture
- Generated revenue of Rs. 1.2 crores in FY21-22

End users - Business-to-Business (B2B) and Business-to-Consumer (B2C)

Founder - Visakh Sasikumar

Technology Readiness Level (TRL) - 9

Intellectual Property - Filed 3 Patents

—

Incubated at

IITM Incubation Cell
http://www.incubation.iitm.ac.in/
office@incubation.iitm.ac.in

Shellios Technolabs Pvt Ltd., Delhi

www.shellios.com

Product - PUROS ANTI-POLLUTION HELMET

Problem Addressed - SHELLIOS PUROS Anti-Pollution Helmet is designed to help 2-wheeler riders breathe clean air. Most Indian cities have very polluted air, and a combination of high PM2.5 and vehicular emission poses enormous health and environmental challenges.

Product details

Description **-** A smart helmet with modular accessories to solve this problem in a base plus swappable accessory format.

Application **-** PUROS is the world's first anti-pollution helmet. It is a helmet with integrated air purifying accessory. Their patented innovation features a Brushless DC (BLDC) blower fan, High-Efficiency Particulate Air (HEPA) filter membrane, electronic circuit, and microUSB charging port integrated into a specially designed helmet. The product is safety certified as per IS:4151.

Value Proposition - The unique value of the product is to ensure exposure reduction by more than 80% measured as exposure to pollutants using a controlled environment without such a purification system in standard traffic conditions.

Achievements

- Commercialization deals with leading Original Equipment Manufacturers (OEMs)
- Products are sold in all parts of the country
- Slow and steady growth

End users - Royal Enfield Motorcycles, Rissala Electric Motors, and Individual riders all over India

Founder - Amit Pathak

Technology Readiness Level (TRL) - 9

Intellectual Property- Granted Utility Patent

Incubated at

JSSATE-STEP, Noida
www.jssstepnoida.org
info@jssstepnioda.org

Physics Motors Technology Pvt Ltd.,

Hubballi, Karnataka www.physicsmotors.com

Product - TRACTION MOTORS FOR ELECTRIC VEHICLES (EV) and BRUSHLESS DC (BLDC) MOTORS

Problem Addressed - Indian EV market is entirely dependent on China for Traction Motors. Physics Motors is solving this major problem of dependency on China by localizing all the parts of motors (except magnets) by building superior quality Traction Motors for the Indian and world EV market.

Product details

Description **-** Electric Vehicles need Traction Motors to propel. BLDC Motors are highly efficient when compared to AC Motors. The automobile market is now transitioning from Internal Combustion Engine (ICE) to BLDC Motors. Physics Motors is a fully indigenous designer and manufacturer of BLDC/Permanent Magnet Synchronous Motor (PMSM) Traction Motors for EVs.

Application **-** Physics Motors has developed a superior quality traction motor with patented sealing technology and a better performing product than Chinese motors. Physics Motors can design and build BLDC/PMSM motors with complete in-house capabilities for any application.

Value Proposition - Patented sealing technology; All components are fully localized in India; Better performance than any other product of the same power specifications.

Achievements

- Sealing technology patented by Physics Motors
- Secured 3 purchase orders (Production Order)
- Successfully developed BLDC Motors for Mixer/Grinder application
- Raised Pre-series A investment from Indian American Investor Dr. Kiran Patel

End users - 2-wheelers Original Equipment Manufacturer (OEM) Automotive Manufacturers, Consumer Goods OEM Manufacturers

Founder - Deepak Jadhav

Technology Readiness Level (TRL) - 8/9

Intellectual Property - Sealing Technology and other inventions in the patent filing stage

Incubated at

KLE-Centre for Technology Innovation & Entrepreneurship (CTIE)
www.klectie.com
ctie@kletech.ac.in

GRINNTECH Motors & Services Pvt Ltd., Chennai

https://www.grinntech.com

Product - 2-WHEELER, 3-WHEELER, COMMERCIAL VEHICLE BATTERIES, CUSTOM BATTERY DEVELOPMENT, AND BATTERY ANALYTICS

Problem Addressed - Mobility for the future needs to be environmentally sustainable and economically affordable. Grinntech focusses on designing and developing innovative, affordable, and quality energy storage solutions for the world that will transform mobility with a conviction toward the planet's environment.

Product details

Description - Grinntech offers a complete range of solutions for Electric Vehicles (EV), from fully integrated battery packs and off-the-shelf products to custom-engineered solutions and battery analytics. Their range of Lithium-ion batteries is setting new standards in safety, energy density, long life, and reliability.

Application - Grinntech offers a range of batteries like Internal Combustion (IC) Engine starter batteries, E-cycle, robotics, 2-wheeler, 3-wheeler, and commercial vehicle batteries. Grinntech also undertakes custom battery development for specific client requirements, backed by their design flexibility and advanced in-house BMS. They also offer battery analytics as a service.

Achievements

- Wide market presence across India
- External investments of Rs. 11.15 crore led by High Net-worth Individuals (HNIs) and private investors
- Generate revenue of more than Rs. 1.4 crores in FY20-21 and Rs. 1.2 crores in FY21-22

End users - Major electric vehicle Original Equipment Manufacturer (OEMs)

Founders - Puneet Jain
Nikhilesh Mishra

Technology Readiness Level (TRL) - 9

Intellectual Property - 3 patents filed

Incubated at

RTBi
IITM's Rural Technology and Business Incubator

Rural Technology Business Incubator
rtbi.in
info@rtbi.in

Maxbyte Technologies, Coimbatore

https://maxbyte.co/

Product - INDUSTRIAL DIGITAL AUTONOMOUS ROBOTS

Problem Addressed - Continuous monitoring of air compressors, addressing service overdue issues, increased uptime, and improved productivity.

Product details

Description **-** Realtime Analytics, Energy Efficiency, Predictive Maintenance, Artificial Intelligence (AI)-Enabled backend.

Application **-** Offers robotization of manually operated mobile machines and custom-built Autonomous Mobile Robots.

Value Proposition - Industrial Mobility Robotization Platform

Achievements

- More than 100 industrial digital transformation projects
- 100+ employees in 5 years
- Customers in MEA, USA, IND
- Raised USD 250,000 in external funds

End users - Automobile, Aero, Metal, and Machinery manufacturers

Founder - Ramshankar C S

Technology Readiness Level (TRL) - 9

Intellectual Property - MARC- Maxbyte Advanced Robotics Center

Incubated at

cultiv8

CIET-TBI, Coimbatore
www.thecultiv8.com
business@thecultiv8.com

Artitech Innovations Pvt Ltd., Hubli

www.kosha.ai

Product - HASTA IOT

Problem Addressed - For over four decades, mass-produced imitation products have been sold as authentic handmade products. It has resulted in the migration of skilled weavers due to low wages, declining market, lack of consumer trust, and ineffectiveness of policies targeted at genuine weavers. Existing authentication mechanisms are also audit based and ineffective.

Product details

Description **-** KOSHA has developed an IoT device. This device and mobile application capture real-time information on the process, using which the product is authenticated. A proprietary tamper-proof label is applied to each product during production. With a simple QR scan, consumers/stakeholders can validate the authenticity and trace the origin of the product.

Application **-** HASTA Internet of Things (IoT) device is fixed to the handloom. The device senses the motion of the loom, which is used for authenticating the product. Further, the proprietary WeavePROTECT label is woven into the fabric during the weaving process. This label digitalises the product and carries authenticity/ traceability information.

Value Proposition - Digitalisation, Real-time authentication, Supply Chain Management, Traceability

Achievements

- Estimated 12000 subscriptions by 2023-24
- Present in 10 states and 2 countries (India and Africa)
- Winner of Start-up Karnataka Elevate Challenge
- MoU signed with North-Eastern Handicraft and Handloom Development Corporation Ltd. (NEHHDC), a Public Sector Undertaking (PSU) in North-East India
- External investment of Rs. 1.2 crore

End users - Handloom Retailers/Brands, Manufacturers and Exporters, Co-operatives/Federations, Government and Government Agencies

Founders - Vijaya Krishnappa
Ramki Kodipady
Visaha Chaudhary

Technology Readiness Level (TRL) - 9

Intellectual Property - 3 Patents filed

Incubated at

Deshpande Startups

Foundation of Sandbox Start-ups Initiatives, Hubli
https://www.deshpandestartups.org/

RC Hobbytech Solutions Pvt Ltd., (Drones Tech Lab), Kolkata

www.dronestechlabs.com

Product - UNMANNED AERIAL VEHICLE (UAV) FOR CARRYING HEAVY PAYLOADS

Problem Addressed - The UAV addresses the issue of lack of transportation of essential goods in areas affected by natural calamities and the absence of a proper medium for transport of heavy lidars for data acquisition in topographic mapping.

Product details

Description **-** In-house designed carbon fiber frame equipped UAV that is extremely resistant yet powerful for carrying loads up to 30 kg in harsh climates.

Application **-** The UAV is powerful (can lift up to 30 kgs) yet lightweight and compact, with 4 removable arms and landing gears that make it super easy to transport. It is extremely resistant due to the in-house designed carbon fiber frame and anodized aluminum fasteners. It is used extensively for transporting essential goods in areas with limited access and carrying heavy equipment required during important topographical surveys.

Value Proposition - Capable of flying in rarefied atmosphere resisting high wind and rainy conditions in autonomous and manual mode with a single button mission accomplishment feature.

Achievements

- Used extensively by Government agencies
- Deployed in flood relief efforts undertaken by the Government of Assam
- Raised seed fund of Rs. 1.5 crore from Balmer Lawrie & Co Ltd.

End users – Government Agencies, Corporates, Survey and Mapping Organisations

Founders – Ritesh Kan
Biswajit Dey
Debajit Deka

Technology Readiness Level (TRL) – 9

Intellectual Property – In the process of filing a patent for Drones Tech Lab brand TM

Incubated at

IIM CALCUTTA INNOVATION PARK

IIM Calcutta Innovation Park, Kolkata
https://iimcip.org/
subhrangshu.sanyal@iimcip.org

Atrim Electronics Pvt Ltd., Ghaziabad, Uttar Pradesh

www.atrim.in

Product - Tube well automation through mobile programme, Global Positioning System (GPS) Car Tracker Device, Cool Connect, Acrylic Light-emitting diode (LED) signage, Token display, GSM modem

Problem Addressed - Indigenous and cost-effective solutions for customised automation were not available.

Product details

Description **-** The company provides customized Embedded Systems and Robotics solutions. They facilitated innovative ESDM (Electronic System Development & Manufacturing) and acted as OEM (Original Equipment Manufacturer) for organisations across different sectors.

Application **-** ATRIM Electronics Pvt Ltd. is a distinguished service provider engaged in providing services for Electronic Research and Development, Manufacturing Services, PCB Services, Customized Solutions, etc. The company holds expertise in delivering end-to-end electronic solutions to clients in an effective manner.

Value Proposition – Customised, cost-effective solutions

Achievements

- Achieved a good customer base
- Exhibited domestic/international presence
- Good growth in terms of revenue and employment generation
- Received funding and investments from national and international institutes

End users - Stellar Group, Digitech Services, Pico Event Marketing (India) Pvt Ltd., Mother Dairy, IUAC, IGI Airport, New Delhi, Satya Metal Industries (P.) Ltd.

Founders - Shivam Dikshit
Shashank Saxena

Technology Readiness Level (TRL) - 9

—

Incubated at

TBI-KIET, Ghaziabad
www.tbi-kiet.in
tbikiet@gmail.com

CDSpace Robotics Pvt Ltd., Bengaluru

www.cdspace.in

Product - SNAP-M PPK

Problem Addressed - Providing superior mapping accuracy for every pixel of visual data compared to manual methods at a significantly lower time and operational cost.

Product details

Description **-** SNAP-M PPK provides less than 10 cm accuracy of mapping data with high-resolution outputs. It also features best-in-class endurance and area coverage. It is safe and reliable with multiple redundancies and fail-safes for completely autonomous operations.

Application - SNAP-M PPK is a Professional Survey Grade Mapping UAV. It is used for Geographic Information System (GIS) survey applications that include land mapping, terrain mapping, mines mapping, volumetric analysis, town planning surveys, agricultural surveys, and similar aerial mapping.

Value Proposition - Composite Monocoque airframe, inhouse PPK and controls technology, maximum area coverage for the given weight class.

Achievements

- Generated revenue of Rs. 2.6 crores with this product and with 12 different clients
- Pan India sales
- Growth of over 5 times in the past year and projected sales of Rs. 10 crores in this financial year

End users - The end-users for this product are the GIS companies, Government organizations like Survey of India, State revenue departments, Mapping service providers, and Educational institutions.

Founders - Nikhil Upadhye
Krishnrajsingh Gaur
Piyush Negi
Pence Mataria

Technology Readiness Level (TRL) - 9

Intellectual Property - Airframe Design, PPK Technology, Autopilot Board, System Integration

Incubated at

STARTUP INCUBATION AND INNOVATION CENTRE IIT KANPUR

SIIC IIT, Kanpur
https://siicincubator.com/
siic@iitk.ac.in

NOSH Euphotic Labs Pvt Ltd., Bengaluru

www.letsnosh.io

Product - NOSH

Problem Addressed - Working professionals do not get freshly cooked homemade food conveniently. Primarily, dual work couples resort to batch cooking, i.e., cooking once or twice a week and eating re-heated food over the week or depending on food delivery services that affect their health.

Product details

Description **-** Nosh is an Artificial Intelligence (AI)-based home robot that makes cooking hassle-free and enables consumers to eat healthy and freshly cooked home food conveniently.

Application **-** Nosh is a global product that automatically cooks an extensive range of pot dishes such as Curries, Sautéed Vegetables, Rice Dishes, Pastas, Sweets, etc.

E.g., Nosh cooking Kadai Paneer:
https://www.youtube.com/watch?v=241E7JKXWM0

Nosh cooking Chicken Curry:
https://www.youtube.com/watch?v=LoRSxm0mmjE

Value Proposition - Nosh is a closed product that provides hygienic cooking, and its design is preferred by the consumers; Nosh is easy to clean as it has just 3 parts (pan, stirrer, and ingredient tray) to be cleaned after every cooking; Nosh is meal kit friendly since it has pre-prepared ingredients.

Achievements

- Received 603 pre-orders with an order value of USD 337,670
- Pre-orders from more than 10 countries
- Beta trials to start in Aug 2022, and plan to begin delivery in Q4 of 2022
- External investment of Rs. 4 crores

End users - Business-to-consumers (B2C), including, Individuals, Working couples, Mothers with children below 10 years old, and Health-conscious people

Founders - Yatin Varachhia
Sudeep Gupta
Amit Kumar Gupta

Technology Readiness Level (TRL) - 8

Intellectual Property - 2 patents granted (Spice Dispensing Mechanism and Stirring Mechanism) and 1 patent filed (Ingredient dispensing mechanism)

Incubated at

IIT Bombay
SINE
Business Incubator

SINE IIT Bombay
https://sineiitb.org/
sine@sineiitb.org

Tactopus Learning Solutions Pvt Ltd.,

Bengaluru www.tactopus.com

Product - TACTOPUS

Problem Addressed - Solving problems of Indian students who struggle with learning or perform below average by designing learning experiences for alternate senses with the aid of an audio assistant.

Product details

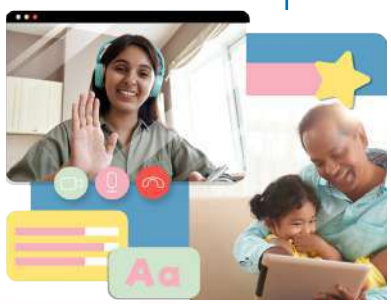
Description and Application **-** The product aids in building multi-sensory learning resources to enable children with vision loss to participate in mainstream education. It also helps design learning experiences for alternate senses with the aid of an audio assistant, supports teachers in building DIY repositories of interactive books and modules, and develops original, affordable, and interactive content with publishers.

Value Proposition - Inclusive education technology using multi-sensory learning solutions for children aged 3+ with a special focus on ensuring that those with disabilities - visual, developmental, and learning can participate equally in learning opportunities. Bridging the physical and digital, Tactopus has developed textured tactile books, flashcards, games, and puzzles alongside a mobile app that uses image processing to augment audio interactions and games to create a wholesome learning experience.

Achievements

- **Awards:** Young Innovator Award from Chief Minister of Maharashtra, Devendra Fadnavis, 2016; Inclusive Innovation Award by BCCI, 2018; TiE Global Summit QGlue Design-Led Entrepreneurship Award, 2019; Westerwelle Young Founders, 2019; TiE Women Runners-up, 2020; NCPEDP-Mphasis Universal Design Awards, 2020.
- Educators and families of children with visual impairment, learning disabilities, and developmental disorders

End users - Educators and families of children with visual impairment, learning disabilities, and developmental disorders.



Founders - Saloni Mehta
Chandni R Rajendran

Technology Readiness Level (TRL) - 9

—

Incubated at

SOCIAL alpha

Social Alpha, New Delhi
www.socialalpha.org
info@socialalpha.org

WASTE MANAGEMENT

Startup Name
REVY Environmental Solutions Pvt Ltd., Vadodara
Green Trek Research & Development Pvt Ltd., Jammu
Innocule Materials and Additives Pvt Ltd., Bhubaneswar
GD Environmental Pvt Ltd., Pune
Regeno Ventures Pvt Ltd., Tiruppur
Wastelink, New Delhi

REVY Environmental Solutions Pvt Ltd., Vadodara

http://www.revy.co.in/

Product - REVY-S (Anaerobic Granulated Sludge)

Problem Addressed - Water, food, and energy scarcity have emerged as an increasingly important and vital issue for India. India's quest for energy security and sustainable development rests significantly on the ability to tap energy from renewable sources. With the growing population and increasing power prices, managing wastewater utilities is a major challenge in India.

Product details

Description **-** Anaerobic Digestion (AD) is one of the many important technologies for waste treatment at an economical cost and energy recovery. As this is governed solely by microbial activity, its proper development and optimization are very important. REVY-S is an anaerobic granulated sludge of 1.5-2.0 mm in size and contains more than 650 numbers of various bacteria. This consortium is proven to treat wastewater, and the treated water can be used directly for irrigation purposes and energy recovery.

Application **-** REVY-S is a mixture of more than 650 types of anaerobic bacteria. This consortium is proven to treat organic wastes/wastewater along with enhanced energy recovery, and the treated water can directly be used for irrigation purposes.

Value Proposition - It helps in 2 times faster commissioning of biological units and 50% cost reduction in commissioning of the units. Its implementation has reduced the biomass washout from the UASB system by 85-90% and the COD/BOD by 80-90%. It has 12 times faster start-up leading to Faster commissioning of Anaerobic STP/ETP, and produces 2 times more biogas yield compared to flocculent systems. The product also ensures 10 times return on investment through consistent biogas production.

Achievements

- Validation with early adopters
- Domestic presence
- Growth of CAGR 25% year-on-year
- Equity-based seed-support

End users - Municipal Corporations, Industries

Founder - Dr Vanita Prasad

Technology Readiness Level (TRL) - 7

Intellectual Property - Patent Granted in India, USA, South Africa

Incubated at

Venture Center, Pune
www.venturecenter.co.in
info@venturecenter.co.in

Green Trek Research & Development Pvt Ltd., Jammu

www.greentrek.co/

Product - GREEN TREK-HANDFIELD MANGANESE STEEL, CHROME STEEL, HEAT RESISTANT STEEL, AND STAINLESS STEEL

Problem Addressed - 'Mill Scale', a steel waste generated by Steel Rolling Mills, is dumped into landfills all over the world (thousands of tons), and due to the increasing quantity of mill scale, more landfills are being created. The leaching of this material into soil and groundwater causes pollution and threatens the environment.

Product details

Description **-** Recycling of different types of steel waste such as oxides and metallic scrap (iron and steel). Using this process, pure molten metal with more than 99% iron content is obtained. It is then alloyed to make various types of high-value steel and alloy castings for a wide variety of industries.

Application **-** The company's trade and scope of impact is not limited to national borders but also globally. The start-up works on a Circular Economy model by utilizing technology for a sustainable waste management process. The process does not need any electric power and can be used in places where electric power is scarce or absent.

Value Proposition - Process of manufacturing using no power and creating no pollution.

Achievements

- Shifting the unit to Kangra to cater to the Heavy Industries
- Domestic presence: Facility for Low Carbon Technology Deployment (FLCTD) jointly implemented by BEE-GEF-UNIDO
- Implementing Artificial Intelligence/Machine Learning (AI/ML) into their melting technology in order to have a global reach and presence
- Working towards manufacturing of Green Steel-The Metal of Future. Purchased 14,700 sq. ft. of industrial land in Kangra and signed an MoU with the Government of Himachal Pradesh, Industries Department to enable further growth as well as have a connecting reach to the customers

End users - Multifarious industries, namely cement plants, stone crushers, power plants, oil and gas plants, heavy earth equipment manufacturers, etc.`

Founder – Sandeep Gupta

Technology Readiness Level (TRL) - 8

Incubated at

IIT MANDI CATALYST, Mandi
https://www.iitmandicatalyst.in/
iitmandicatalyst@gmail.com

Innocule Materials and Additives Pvt Ltd.,

Bhubaneswar http://innocule.com

Product - OREFLO, MIX-D, GRINEX, FLUMIX, FAM, COALMIX

Problem Addressed - With the use of their chemicals, the mining, mineral, and metal industries empowered themselves to utilize low-grade ores and indigenous resources and reduce the import of raw materials, which helped in recovering values from the wastes and reduced environmental pollution.

Product details

Description **-** The current mineral resources in India are rapidly depleting. The growing challenge for the Indian mineral industry is two-fold: low-grade ores and operational challenges while processing them. The beauty of their interventions is that they can be used in the existing plant without any major modifications in the process.

Application **-** OREFLO is used to ease low-grade ore handling and processing in the rainy season; Mix-D is used as a dust suppressant in mining haul roads, conveyor transfer points, and stockpiles; Grinex is used for efficient dry grinding of iron ore to reduce specific power consumption and enhance production; Flumix is used for beneficiation of low-grade iron ore by reducing silica and alumina content in the final product; FAM is used for efficient dewatering of iron ore slurry filtration and enhanced plant production; CoalMix helps utilize Indian non-coking coal in coke making and replaces 10-15% of coking coal import.

Value Proposition - The offerings include OREFLO (stickiness inhibitor), Grinex (improved grinding efficiency, mill output, and decreased power requirement), FAM (increase filtration production), dust suppressant (controls dust in mining haul roads, mineral piles, and conveyor transfer points), etc.

End users - All major mineral industries, including Tata Steel Ltd., JSW Ltd., Vedanta Resources Ltd., SAIL, BMM Ltd., etc.

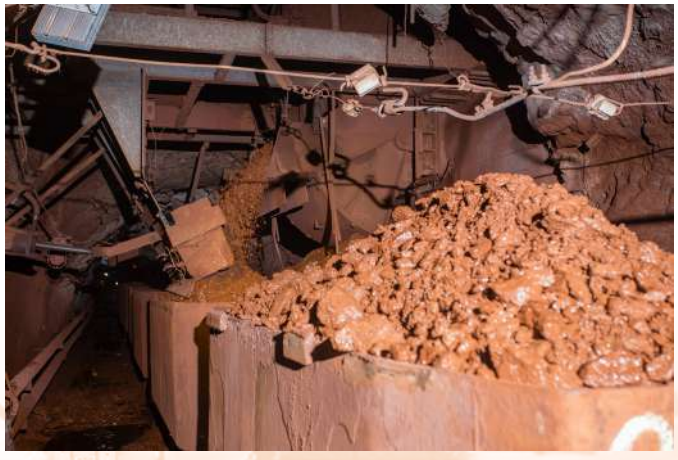
Founder - Gyan Ranjan Das

Technology Readiness Level (TRL) - 8

Intellectual Property - 3

Incubated at

KIIT-TBI, Bhubaneswar
www.kiitincubator.in
tbi@kiitincubator.in



GD Environmental Pvt Ltd., Pune

www.gdepl.org

Product - MULTIJET HIGH-TEMPERATURE UPDRAFT GASIFIER; DROP-IN FUEL; STY PAINT; FUEL PELLETS; FLY-ASH BRICKS

Problem Addressed - Urban agglomerations are characterized by poor municipal solid waste management and processing. They generate substantial amounts of waste that is currently left unprocessed and dumped at landfill sites. They lack the ability to process inorganic dry waste, which has emerged as one of the most uncontrolled environmental threats.

Product details

Description **-** GDEPL's patent-pending technology gasifies all dry waste material, and converts it into thermal energy and a small residue of ash. Wet waste containing 40-50% moisture can also be gasified without pre-drying. The segregated plastic is used for producing a drop-in fuel and waterproof paint, a mixture of dry and wet waste is used for making pellets, and residue ash is used for producing fly-ash bricks.

Application **-** Selected under the 'Waste to Wealth Mission' of the Government of India, headed by the office of the Principal Scientific Adviser (PSA), GD Environmental Pvt Ltd. (GDEPL) provides a commercially feasible and environmentally sustainable solution for decentralized processing of Municipal Solid Waste (MSW). GDEPL's gasifier disposes MSW and generates energy that can be utilized for various applications. GDEPL also produces a drop-in fuel, fuel pellets, waterproof paint, fly-ash bricks, etc., from MSW.

Value Proposition - GDEPL provides a solution that disposes MSW completely with zero landfill requirement and caters to all pollution control norms. Additionally, it creates value-added products out of it.

Achievements

- The solution has already been deployed in civic bodies and townships
- Presence in domestic markets
- GDEPL in its subsidiary invested more than Rs. 1 crore from and raised an equal amount from other external sources
- Generated revenue of Rs. 2 crores

End users - Value-added products can be sold in bulk or retail to Governments, Civic bodies, and Townships for disposal of MSW

Founders – Ajit Gadgil
Abhijit Datar

Technology Readiness Level (TRL) - 9

Intellectual Property - Applied for 2 Patents

Incubated at

SCITECH PARK

Science and Technology Park, Pune
www.scitechpark.org.in
stp@scitechpark.org.in

Regeno Ventures Pvt Ltd., Tiruppur

www.regeno.in

Product – ECO-FRIENDLY BIODEGRADABLE AND COMPOSTABLE PACKAGING SOLUTIONS.

Problem Addressed - The start-up aims to tackle the plastic pollution problem in India by developing biodegradable solutions. India currently produces around 10 MMT of single-use plastic annually, with 79% ending up in landfills and ocean bodies. This process causes the release of BPA and results in serious pollution of the oceans.

Product details

Description **-** The solution is developed from native cassava starch and other vegetable oil derivatives. The solution developed is non-toxic and completely soluble in hot water, ensuring its safe disposal. The solution is also corrosion resistant and exhibits good printability.

Application **-** Regeno Ventures develops eco-friendly, biodegradable, home compostable, and completely recyclable packaging alternatives from native cassava starch and other vegetable oil derivatives. The packaging solution developed is non-toxic and completely soluble in hot water. The alternatives developed are used for packaging garments, automotive parts, and consumer goods.

Value Proposition - It is the only solution in the Indian market that is home compostable and completely hot water soluble.

Achievements

- Winner of Atal New India Challenge (ANIC), a flagship event under Atal Innovation Mission-NITI Aayog
- Winner of Tamil Nadu Grand Idea Challenge (TNIGC), Government of Tamil Nadu

End users - Jack and Jones, Industry of all Nations, Max, Suta, Flipkart, Subway, etc.

Founder - Cibhi Sel Ven

Technology Readiness Level (TRL) - 9

Incubated at

VelTech TBI, Chennai
https://www.veltechtbi.com
veltechtbi@veltech.edu.in

Wastelink, New Delhi

https://www.wastelink.co

Product - ECOFEED

Problem Addressed - They partner with the food industry to transition them into a circular economy. They do that by providing solutions for food waste management and upcycling food waste into animal feed.

Product details

Description **-** They purchase food waste from food producers (farms, factories, warehouses, distributors) by offering them improved economic benefits for their waste. Further, they aggregate this food waste and convert them into nutritious animal feed ingredients at their processing units which are then sold to feed manufacturers. Food waste is kept out of landfills, preventing the emission of a significant amount of Green House Gases (GHGs).

Application **-** Aggregate food waste and convert them into nutritious animal feed ingredients at processing units which are then sold to feed manufacturers.

Achievements

- 6,000 tons of annual food waste upcycled, preventing 18,000 tons of GHG annually
- Presence in India with a focus on future expansion into emerging markets
- Growth of 3-4 times year-on-year
- Rs. 10 crore annual run rate from feed ingredient sales
- External investments of Rs. 10.3 crore

Founders - Saket Dave
Krishnan Kasturirangan

Technology Readiness Level (TRL) - 9

—

Incubated at

LABS Indigram
Enterprise4impact

Indigram Labs Foundation, New Delhi
https://indigramlabs.org/
tbi@indigramlabs.org

TECHNOLOGY BUSINESS INCUBATORS (TBIs)

IMPLEMENTING NIDHI-SEED SUPPORT PROGRAM (NIDHI-SSP) OF DST

S.No.	NAME OF THE INCUBATOR	STATE	WEBSITE
1.	Ahmedabad University Support Foundation (AUSF) (Venture Studio), Ahmedabad	Gujarat	https://ahduni.edu.in/academics/schools-centres/venturestudio/
2.	Amrita Technology Business Incubator, Kollam	Kerala	www.amritatbi.com
3.	Atal Incubation Centre – Centre for Cellular & Molecular Biology [AIC-CCMB], Hyderabad	Telangana	http://aic.ccmb.res.in
4.	Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology (SPIT), Mumbai	Maharashtra	www.sptbi.com
5.	BIL-RYERSON Technology Startups Incubator Foundation, Zone Startup Mumbai	Maharashtra	http://www.brtsif.com/
6.	Centre for Cellular and Molecular Platforms (CCAMP), Bangalore	Karnataka	https://www.ccamp.res.in
7.	Centre for Incubation and Business Acceleration (CIBA), Vashi, Navi Mumbai	Maharashtra	www.ciba.org.in/mumbai
8.	Centre for Innovation Incubation and Entrepreneurship Initiatives' (CIIE Initiatives) at India Institute of Management (IIM) Ahmedabad	Gujarat	https://ciie.co/
9.	Chandigarh University-Technology Business Incubator (CUTBI), Mohali	Punjab	https://www.cuchd.in
10.	COEP's Bhau Institute of Innovation, Entrepreneurship & Leadership, Pune	Maharashtra	www.coep.org.in
11.	Coimbatore Innovation Business Incubator (CIBI),Coimbatore	Tamil Nadu	https://www.forgeforward.in
12.	Dayananda Sagar Entrepreneurship Research and Business Incubation Foundation (DERBI), Bangalore	Karnataka	https://derbifoundation.com/
13.	Entrepreneurship Development Center (EDC) (Venture Centre), Pune	Maharashtra	www.venturecenter.co.in
14.	Foundation for Innovation and Social Entrepreneurship (FISE), Tata Trusts, Bangalore	Karnataka	https://www.socialalpha.org/
15.	Foundation for Innovation and Technology Transfer-FITT, Indian Institute of Technology Delhi (IITD), Delhi	Delhi	https://fitt-iitd.in
16.	Foundation for Sandbox Startups Initiatives (FSSI), Deshpande Foundation, Hubballi	Karnataka	https://www.deshpandestartups.org
17.	Gujarat University Startup & Entrepreneurship Council (GUSEC), Ahmedabad	Gujarat	www.gusec.edu.in
18.	I2D Coimbatore Institute of Engineering & Technology (CIET), Coimbatore	Tamil Nadu	www.thecultiv8.com
19.	IIM Udaipur Incubation Center, Indian Institute of Management, Udaipur	Rajasthan	https://iimuic.org/
20.	IIT Gandhinagar Innovation and Entrepreneurship Center, Palaj, Gandhinagar	Gujarat	https://iieciitgn.com/
21.	Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kancheepuram, Chennai	Tamil Nadu	http://www.madeit.iiitdm.ac.in/

S.No.	NAME OF THE INCUBATOR	STATE	WEBSITE
22.	Indian Institute of Management (IIM) Kozhikode	Kerala	www.iimklive.org
23.	Indian Institute of Management Calcutta Innovation Park (IIMCIP), IIM Calcutta	West Bengal	www.iimcip.org
24.	Indian Institute of Technology (IIT), Mandi	Himachal Pradesh	www.iitmandicatalyst.in
25.	Indian School of Business (Dlabs) Gachibowli, Hyderabad	Telangana	www.isbdlabs.org
26.	Indigram Labs Foundation (ILF), New Delhi	Delhi	https://indigramlabs.org/
27.	Indraprastha Institute of Information Technology Delhi (IIITD) Innovation & Incubation Center	Delhi	www.iiitd.ac.in
28.	International Centre for Entrepreneurship and Technology (i-Create) Gujarat Foundation Entrepreneurial Excellence (GFEE), Ahmedabad	Gujarat	https://icreate.org.in/
29.	International Crops Research Institute for the Semi Arid Tropics (ICRISAT), Patancheru	Telangana	https://www.icrisat.org/tag/agri-business-incubator/
30.	Jain University Incubation Centre, Bangalore, Karnataka	Karnataka	www.juincubator.com
31.	KLE Technological University, Bvd Campus, Vidyanagar, Hubballi	Karnataka	www.klectie.com
32.	LEAF Incubator Gujarat Law Society (GLS) University, Ahmedabad	Gujarat	www.glsleaf.in
33.	NS Raghavan Centre for Entrepreneurial Learning (NSRCEL), Indian Institute of Management (IIM) Bangalore, Bangalore	Karnataka	https://www.nsrcel.org
34.	Research Innovation Incubation Design Laboratory Foundation (RiidL), Mumbai	Maharashtra	www.riidl.org
35.	Science and Technology Park University of Pune, Pune	Maharashtra	https://scitechpark.org.in/
36.	Shri Mata Vaishno Devi University, Technology Business Incubator Center Society (SMVDU TBIC), Jammu	Jammu	https://www.smvdu.ac.in/
37.	SIDBI-Innovation & Incubation Centre (SIIC), Indian Institute of Technology (IIT), Kanpur	Uttar Pradesh	https://siicincubator.com/
38.	Society for Innovation and Entrepreneurship (SINE), Indian Institute of Technology, Bombay (IITB), Mumbai	Maharashtra	www.sineiitb.org
39.	Society for Siddharth International Incubation Centre, Chittoor	Andhra Pradesh	www.siic.sietk.org
40.	SR Foundation (SRiX), Telangana	Telangana	www.srix.in
41.	Sree Chitra Tirunal Institute for Medical Sciences & Technology, Technology Business Incubator (SCTIMST-TIMED), Trivandrum	Kerala	https://www.timed.org.in/
42.	Startup Oasis, Jaipur	Rajasthan	www.startupoasis.in
43.	TIDES Incubation Centre, Indian Institute of Technology IIT, Roorkee	Uttarakhand	http://tides.iitr.ac.in/
44.	Vellore Institute of Technology – Technology Business Incubator (VITTBI), Vellore	Tamil Nadu	www.vittbi.com

Publication brought out by DST
in association with
Vigyan Prasar

विज्ञान प्रसार
VIGYAN PRASAR
An Autonomous Organization of Department of Science and Technology

VIGYAN PRASAR
1st Floor, Block-II, Technology Bhavan
New Delhi-110016
Phone: +91 11-26511207
E-mail: info@vigyanprasar.gov.in
Website: https://www.vigyanprasar.gov.in

facebook.com/vigyanprasar

pinterest.com/vigyanprasar

twitter.com/VigyanPrasar

instagram.com/vigyanprasar

linkedin.com/company/vigyan-prasar/

youtube.com/user/VigyanPrasar1

9 788174 803900