

Compendium of 75 Agri Entrepreneurs and Innovators







सत्यमेव जयते
NITI Aayog



COMPENDIUM OF 75 AGRI
ENTREPRENEURS
AND INNOVATORS

Compendium of 75 Agri Entrepreneurs and Innovators

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Editors:

- ◆ Dr. Neelam Patel, Senior Adviser
- ◆ Dr. Saloni Bhutani Young Professional
- ◆ Dr. Athira S, Research Officer

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संदेश

मुझे यह जानकर प्रसन्नता हो रही है कि नीति आयोग द्वारा 'परिवर्तनकारी और नवीन कृषि' पर एक संग्रह तैयार किया जा रहा है।

नीति आयोग सरकार का एक शीर्ष सार्वजनिक नीति थिंक टैंक है। अपने असाधारण अभिनव और परिवर्तनकारी विचारों के साथ कृषि क्षेत्र और संबद्ध क्षेत्रों में क्रांतिकारी परिवर्तन करने वाले 75 कंपनियों के उद्यम स्टार्टअप का इस संग्रह में शामिल होना, संग्रह की महत्ता एवं उपयोगिता को सिद्ध करता है।

सरकार सहकारी आंदोलन में एक प्रमुख हितधारक है और सहकारी समितियों को बढ़ावा देने के लिए उपयुक्त वातावरण तैयार करने तथा नीतिगत समर्थन प्रदान करने में मुख्य भूमिका निभाती है। अपने देश का स्थायी आर्थिक विकास, केवल सहकारिता के माध्यम से ही हो सकता है, इसी सोच के साथ माननीय प्रधानमंत्री श्री नरेन्द्र मोदी जी ने 'सहकारिता के साथ विकास' का नारा दिया है। देश के किसानों की आमदनी दुगुनी करने तथा देश की अर्थव्यवस्था को 5 ट्रिलियन डॉलर से अधिक करने का सपना पूर्ण करने हेतु केन्द्र में स्वतंत्र सहकारिता मंत्रालय स्थापित करने का बुनियादी कदम उठाया गया है।

मैं, अपने अनौपचारिक क्षेत्र में कार्यरत लाखों लोगों को आय और सामाजिक सुरक्षा प्रदान करने के साझा लक्ष्य को प्राप्त करने के लिए प्रत्येक सहकारी समिति, विशेष रूप से महिलाओं के स्वामित्व और प्रबंधन वाली समितियों को उनके द्वारा किए गए सशहनीय कार्यों की प्रशंसा करता हूँ। मुझे विश्वास है कि इस संग्रह में साझा किए गए अनुभव हम सभी को प्रेरित करेंगे और हमारे देश की सहकारी समितियों को बढ़ावा देने तथा सुदृढ़ करने में अपना योगदान प्रदान करेंगे।

मुझे विश्वास है कि नीति आयोग शोध एवं लोक-कल्याणकारी सकारात्मक गतिविधियों के साथ नित-नूतन उपलब्धियों को प्राप्त करता रहेगा तथा एक उन्नत समाज और राष्ट्र के निर्माण में अग्रणी भूमिका निभाता रहेगा।

(अमित शाह)

नरेन्द्र सिंह तोमर
NARENDRA SINGH TOMAR



कृषि एवं किसान कल्याण मंत्री
भारत सरकार
कृषि भवन, नई दिल्ली
MINISTER OF AGRICULTURE & FARMERS WELFARE
GOVERNMENT OF INDIA
KRISHI BHAWAN, NEW DELHI



The Government has decided to memorialize the 75th year of India's Independence as Azadi Ka Amrit Mahotsav. This year is dedicated to celebrating the glorious history of India's freedom struggle, policy initiatives, achievements, innovations, and reinforcing commitments to specific goals and targets.

Indian farmers are the backbone of our nation's economy. Agriculture has been the prime occupation of the rural community and an important contributor to the national GDP. The celebrations of Azadi ka Amrit Mahotsav would be incomplete without honoring our farmers who have gone through a lot of hardships, the policy initiatives taken by our Government, the innovation and technological advancements made by multiple start-ups for making the lives of the farmers better and improvising the agriculture sector.

The Ministry of Agriculture and Farmers Welfare has been making dedicated efforts to transform the agriculture sector into a modernized, sustainable, and export oriented sector that contributes to improved food security, export revenue generation, job creation and overall economic development. It has introduced various farmer friendly schemes like Pradhan Mantri Fasal Bima Yojana (PMFBY) to help farmers morally and economically. But the Government alone cannot solve the farmers' problems, hence agri-tech startups, cooperative societies, private sector and others should join hands to strengthen the sector. The Ministry of Agricultural Welfare has already signed a MoU with Microsoft to run a pilot project for 100 villages in 6 states to strengthen the digitalization of the sector. Start-up's can play a critical role in educating farmers about the beneficial schemes of the Government, sorting out the supply chain issues which plague the sector, and making the lives of our farmers better.

I strongly believe that the Agriculture Sector will greatly benefit from affordable technology and digitization enabled by AgriTech startups. The GoI is actively taking steps to encourage more and more start-ups to venture in the agriculture sector, and help transform the sector into a modern, tech-enabled sector. It is also helping them in scalability, visibility, funding, and reaching the farmers. Action by government and agri-tech startups can revamp Indian agriculture.

I commend the efforts of NITI Aayog in showcasing the success stories of innovators and entrepreneurs who are working towards capturing realistic ideas and converting them into real innovations.

(Narendera Singh Tomar)

परशोत्तम रूपाला
PARSHOTTAM RUPALA



मंत्री
मत्स्यपालन, पशुपालन एवं डेयरी
भारत सरकार
MINISTER
FISHERIES, ANIMAL HUSBANDRY & DAIRYING
GOVERNMENT OF INDIA

Message

Animal Husbandry and Dairy sector, as an allied sector to Agriculture, holds a lot of importance in developing economies like India, for providing nutrition support, reducing rural poverty, inequity, ensuring food security for millions of rural households, generating employment opportunities for women, and enhancing economic growth, particularly in rural areas. It plays a vital role in achieving the Sustainable Development Goals (SDGs) — especially SDG 1-No poverty, SDG 3-Good health, SDG 5-Gender equality, SDG 8-Good jobs and economic growth, and SDG 10-Reduced inequalities — and helps in improving lives and transforming the global economy.

The Government of India has initiated numerous policy schemes and measures for the development of the animal husbandry and dairy sector which include Integrated Sample Survey Scheme for Estimation of Major Livestock Products, National Programme for Bovine Breeding & Dairy Development (NPBBDD), Rashtriya Gokul Mission, Foot and Mouth Disease – Control Programme (FMD-CP), Nationwide Artificial Insemination Programme (NAIP), Kisan Credit Card (KCC) Scheme, etc. However, the Government alone cannot ensure the welfare of the farmers involved in the animal husbandry and dairy sector, and other stakeholders like entrepreneurs, private sector, etc. need to join hands.

This lockdown has steadily established the role of technology in the agriculture and livestock sector. Technology has played a crucial role in converting these uncertain times into opportunities for growth. Dairy startups are leveraging technologies like internet of things (IoT), data analytics, artificial intelligence, etc. to develop cost-effective, long-term, and user-friendly alternatives for storage and supply of semen doses, cost-effective animal

identification (RFID) and traceability technology, heat detection kits, pregnancy diagnosis kits for dairy animals, low-cost cooling and milk preservation system and a data logger, provide unique identity for every cattle to make it easy to take care of each cattle personally, and improve existing milk supply-chain from village collection center to the dairy plant. Startups in the fishery sector are using digitization and advanced technologies to ensure the safety of our fishermen.

The Department of Animal husbandry and Dairy (DAHD) is making continuous efforts to scout for innovative solutions and harness the power of new technologies in these sectors. In Sep 2019, The DAHD, in partnership with Startup India, launched the 'Animal Husbandry Startup Grand Challenge', to scout for innovative and commercially viable solutions to address the problems faced by the animal husbandry and dairy sector. DAHD has also been providing capital subsidy for purchasing of farm animals or milking machines or other dairy-related activities under Dairy Entrepreneurship Development Scheme.

I would like to congratulate NITI Aayog for coming up with this compendium. I hope this compendium will encourage more startups to venture in the field of animal husbandry and dairy, improve the lives of the farmers, and contribute to the overall growth of the agriculture sector.



(Parshottam Rupala)

परमेश्वरन अय्यर
Parameswaran Iyer
मुख्य कार्यकारी अधिकारी
Chief Executive Officer



Foreword

भारत सरकार
नीति आयोग, संसद मार्ग
नई दिल्ली - 110 001
Government of India
National Institution for Transforming India
NITI Aayog, Parliament Street,
New Delhi - 110 001
Tel. : 23096576, 23096574 Fax : 23096575
E-mail : ceo-niti@gov.in

To celebrate Azadi ka Amrit Mahotsav, a compendium has been prepared to commemorate 75 Agri-entrepreneurs and innovators working towards revolutionizing the agriculture and allied sectors with their exceptionally innovative and transformative ideas. This compendium comprises of some of the highly successful start-ups, Self Help Groups (SHGs), cooperatives, societies, movements of change, individual farmers, etc. that have made immense contributions to the agriculture and allied sectors. These organizations are from varied sectors such as agriculture (44), horticulture (8), dairy (3), animal husbandry (5), fisheries (6), and others (9), and diverse states such as Maharashtra (16), Karnataka (16), Haryana (8), Rajasthan (5), Tamil Nadu (5), Uttar Pradesh (5), Madhya Pradesh (3), Gujarat (3), Uttarakhand (3), Telangana (2), Andhra Pradesh (2), Chhattisgarh (2), Bihar (1), Jharkhand (1), Kerala (1), Punjab (1), and Assam (1).

The performance of the agriculture sector has been commendable. It employs 46.5% of our workforce (2020-21), and accounts for a sizeable share of 18.8% (2021-22) in Gross Value Added (GVA) of the country. The growth of allied sectors, including crops, livestock, dairying, forestry & logging, and fishing & aquaculture and fisheries has helped the sector register an average annual growth rate of 4.6% during the last six years, with 3.5% growth rate in 2022-23. There has been a sustained increase in total food grain production in the country from 74.23 million tonnes in 1966 to 315.72 million tonnes in 2021-22. The country's exports of agricultural and allied products in FY 22 also grew by 19.92 percent to USD 50.21 billion.

Many start-ups are innovating in the field of precision agriculture, data analytics, artificial intelligence, machine learning, and genomics. The Government is extending its full support by launching schemes to encourage, protect, and nurture the start-ups. An Agriculture Accelerator Fund has been announced for encouraging agri-startups to bring innovative and affordable solutions for challenges faced by farmers, and modern technologies for transforming agricultural practices. Agriculture credit has been increased to INR 20 lakh crore with focus on animal husbandry, dairy and fisheries. An investment of INR 6,000 crore has been targeted under PM Matsya Sampada Yojana to further enable activities of fishermen, fish vendors, and micro & small enterprises, improve value chain efficiencies, and expand the market. Emphasis has been laid on building digital public infrastructure to enable inclusive farmer-centric solutions through relevant information services for crop planning and health, improved access to farm inputs, credit, and insurance, help for crop estimation, market intelligence, and support for growth of agri-tech industry and start-ups.

We hope that this compendium will motivate more private enterprises, start-ups, and individuals to work in this sector.

Parameswaran Iyer
(Parameswaran Iyer)



एक कदम स्वच्छता की ओर



सत्यमेव जयते

डॉ. चिंतन वैष्णव
Dr. Chintan Vaishnav

मिशन निदेशक
Mission Director
Tel. : 011-23096580
E-mail: chintan.vaishnav@gov.in

भारत सरकार
नीति आयोग
अटल इनोवेशन मिशन
संसद मार्ग, नई दिल्ली-110001
Government of India
NITI Aayog
Atal Innovation Mission
Sansad Marg, New Delhi-110001

Message

Technology creation and dissemination, combined with development initiatives and policy reforms in new ways has the potential to enable the development of the diverse and dynamic agriculture sector. Digital technology is expected to play a key role in realising the Prime Minister's vision of doubling farmers' income through the improvement of the sector. A variety of schemes, plans and initiatives have been taken up at the national and sub-national level for the use of digital technology in agriculture and also to sensitise farmers regarding its benefits and usage, e.g. Digital Agriculture Mission 2021-25. Partnering with the private sector is another such step to strengthen the digitisation of agriculture.

Ag-tech start-ups are witnessing healthy tailwinds in India. Installation of modern technology and artificial intelligence is the need of the hour so as to help farmers with cultivation practices including soil health management, irrigation, pest and disease incidence, weed management and other aspects. Usage of modern devices like drones has helped in the reduction of excess utilization of water and pesticides, which is appreciable from the perspective of sustainability. Geographical positioning and remote sensing have enabled farmers to understand the importance of accuracy and timing of cultivation, with respect to prevailing weather conditions, moisture content of the soil and the incidence of pest.

Mobile applications have enabled farmers to be updated with the ongoing market prices, demand trends and weather forecasts, which help them in cultivating crops of the desired quality and quantity. Moreover, start-ups related to input and output supply chain have made it easy for farmers to take up cultivation practices, and aided them in marketing the produce. Most of all, these start-ups have helped in generating employment and income for rural youth and women.

I congratulate the team of Agriculture and Allied Sectors Vertical at the NITI Aayog for showcasing the success stories of ag-tech entrepreneurs. I am confident that this compendium will inspire more aspiring entrepreneurs to venture in the domain of agriculture and allied sectors, further strengthening the start-up and digital ecosystem.

(Chintan Vaishnav)



एक कदम स्वच्छता की ओर

Dr. NEELAM PATEL
SENIOR ADVISER
Tel : 011-23096613
E-mail : neelam.patel@gov.in



भारत सरकार
नीति आयोग, संसद मार्ग,
नई दिल्ली-110 001
Government of India
NATIONAL INSTITUTION FOR TRANSFORMING INDIA
NITI Aayog, Parliament Street,
New Delhi-110 001

Acknowledgement

Government of India, as a part of Aazadi ka Amrit Mahotsav celebrations, is celebrating ideas and ideals that have not only shaped India over the last 75 years, but will also be guiding us as we navigate through the period of Amrit Kaal (i.e. 25 years between India@75 and India@100). NITI Aayog, against the theme of Innovative Agriculture, is releasing this compendium on 75 innovations in agriculture, with a special focus on smart agriculture and precision agriculture. With this compendium, we wish to commemorate 75 entrepreneurs that have revolutionized the agriculture and allied sectors with their exceptionally innovative and transformative ideas.

For preparing this compendium, we created themes and sub-themes, under which 160-170 start-ups were identified. The idea was to include as many categories as possible, such as agriculture, horticulture, dairy, animal husbandry, fisheries, and others. We reached out to entrepreneurs with a template, received response from more than 120, and shortlisted 75 based on their work, popularity, scale of operation and year of establishment, while ensuring sector-wise and state-wise diversity. A special effort was made to include as many women entrepreneurs as possible. We also tried to include success stories of some inspirational SHGs, cooperatives, FPOs, social movements, hi-tech nurseries, individual farmers, etc., apart from start-ups working in the agriculture and allied sectors.

We extend our sincere gratitude to all the entrepreneurs for providing the relevant information and photographs. We would like to sincerely thank officials of 35 ICAR-Krishi Vigyan Kendras and other institutes like ICAR-CIBA, ICAR-IIMR, MPEDA, CSIR, and Jawaharlal Nehru Krishi Vishwavidyalaya in helping us verify the information furnished by the entrepreneurs. We hope that the innovations featured in this compendium will inspire more promising entrepreneurs to venture in the agriculture and allied sectors, which will help enable the vision of activating India 2.0, fueled by the spirit of Aatmanirbhar Bharat.

We are obliged to Dr. Rajiv Kumar, former Vice Chairman, NITI Aayog, and Shri Suman Bery, Hon'ble Vice Chairman, NITI Aayog for their valuable guidance and direction throughout the preparation of this compendium. We are also thankful to Prof. Ramesh Chand, Member, NITI Aayog, Shri Amitabh Kant, former CEO, NITI Aayog, and Shri Parameswaran Iyer, Hon'ble CEO, NITI Aayog for their support in realization of this compendium. We thankfully acknowledge Ms. Saloni Sachdeva, Young Professional, and Ms. Indrani Dasgupta, Consultant, Communication Vertical, NITI Aayog for editing this compendium. We would also like to thank Mr. Divyanshu Kunwar, and Mr. Sagar S.P. who have assisted us as interns in preparation of this compendium.


(Neelam Patel)



List of Abbreviations

AAC	Autoclaved Aerated Concrete
AI	Artificial Intelligence
AMC	Annual Maintenance Contract
AMLA	Aggregation, Market Linkage and Advisory Services
AMUL	Anand Milk Union Limited
APMC	Agricultural Produce Market Committee
ARYA	Attracting and Retaining Youth in Agriculture
ATDC	Agri Tourism Development Company
AWS	Automatic Weather Stations
B2B	Business to Business
B2B2C	Business to Business to Consumer
B2C	Business to Consumer
B2F	Business to Farmers
BIS	Bureau of Indian Standards
BNPL	Buy Now Pay Later
BSF	Border Security Force
CDC	Commonwealth Development Corporation
CLASS	Crop Loss Assessment Support System
Co-Ops	Co-operatives
CoCo	Connect Online Connect Offline
CPC	Core Processing Centre
CRM	Customer Relationship Management
D2C	Direct to Consumer
DaaS	Data as a Service
DBA	DeHaat Business Application
DGCA	Directorate General of Civil Aviation
ERP	Enterprise Resource Planning
ET	Evapotranspiration
EVI	Enhanced Vegetation Index



F&V	Fruits and Vegetables
F2F	Farm to Fork
FDR	Fixed Deposit Receipt
FMCG	Fast Moving Consumer Goods
FP	Facilitating Agency
FPC	Farmer Producer Company
FPO	Farmer Producer Organization
FSSAI	Food Safety and Standards Authority of India
FYM	Farm Yard Manure
GCMMF	Gujarat Cooperative Milk Marketing Federation
GGBS	Ground Granulated Blast Furnace Slag
GHG	Green House Gas
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GMV	Gross Merchandise Value
GPS	Global Positioning System
GTV	Gross Transaction Value
HDPE	High Density Polyethylene
IARI	Indian Agricultural Research Institute
IBM	International Business Machines Corporation
ICS	Incident Command System
ICT	Information and Communication Technology
IIS	Integrated Irrigation Solutions
iOS	iPhone Operating System
IoT	Internet of Things
IoUT	Internet of Underwater Things
IP	Internet Protocol
IQF	Individually Quick Frozen
IT	Information Technology
IWMI	International Water Management Institute
JISL	Jain Irrigation Systems Limited
KC-C	Kadal Compass Coastal
KC-D	Kadal Compass Deep Sea
KVK	Krishi Vigyan Kendra
KYC	Know Your Customer



LLP	Limited Liability Partnership
LMD	Logistics Management Division
LoRa	Long Range
LPG	Liquefied Petroleum Gas
M2M	Machine to Machine
MARKFED	The Punjab State Cooperative Supply and Marketing Federation Ltd.
MI GIS	Meta Index of Geographic Information Systems
ML	Machine Language
ML	Machine learning
MNCFC	Mahalanobis National Crop Forecast Centre
MOU	Memorandum of Understanding
MPS	Mobile Pickup Stations
MQTTS	MQ Telemetry Transport System
MSME	Micro, Small and Medium Enterprises
MSP	Minimum Support Price
NA	Not Available
NAARM	National Academy of Agricultural Research Management
NAFED	National Agricultural Cooperative Marketing Federation of India
NBFC	Non-Banking Financial Company
NCR	National Capital Region
NDVI	Normalized Difference Vegetation Index
NEPPFA	North East Progressive Pig Farmers Association
NGO	Non-Governmental Organization
NIFT	National Institute of Fashion Technology
NIR	Near Infrared
PABI	Punjab Agri Based Incubator
PPC	Primary Processing Centre
PSU	Public Sector Undertaking
PVC	Polyvinyl Chloride
Pvt. Ltd.	Private Limited
QCI	Quality Council of India
RAS	Recirculatory Aquaculture System
RFID	Radio Frequency Identification
RPAS	Remotely Piloted Aircraft System
SaaS	Software as a Service



SAP	System Analysis Program
SARAS	Society for Advancement of Research in Arts and Sciences Organization
SARROF	Search and Rescue Ocean Floater and Flyer
SDC	Social Development Committee
SDG	Sustainable Development Goal
SEO	Search Engine Optimization
SHG	Self Help Group
SKU	Stock Keeping Unit
SME	Small and Medium-sized Enterprises
SONAR	Sound Navigation and Ranging
TBI	Technology Based Incubator
TPD	Tons Per Day
TPH	Tons Per Hour
UAVs	Unmanned Aerial Vehicles
UNCDF	United Nations Capital Development Fund
UWD	Under Water Devices
VLE	Village Level Entrepreneurs
WAN	Wide Area Network
WWF	World Wildlife Fund
YoY	Year on Year

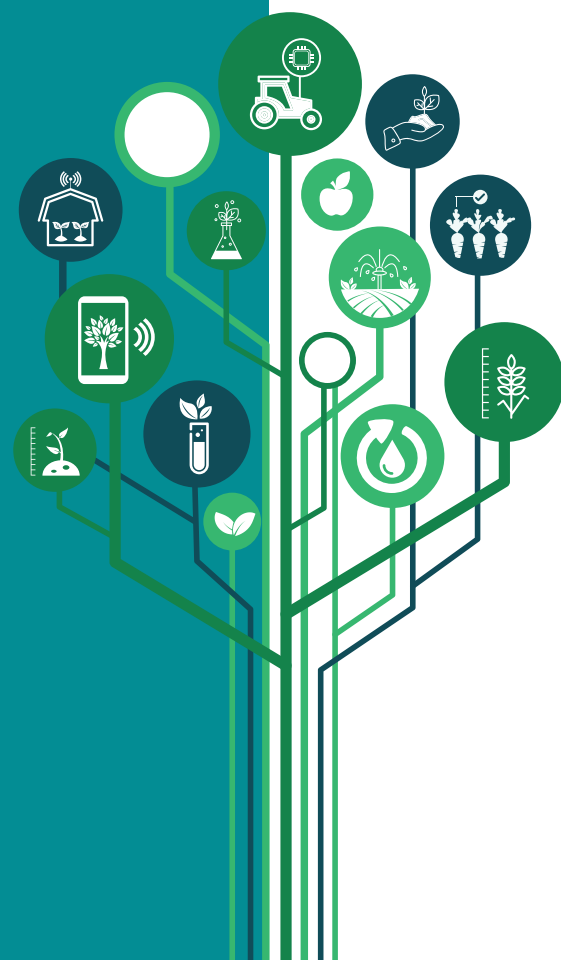


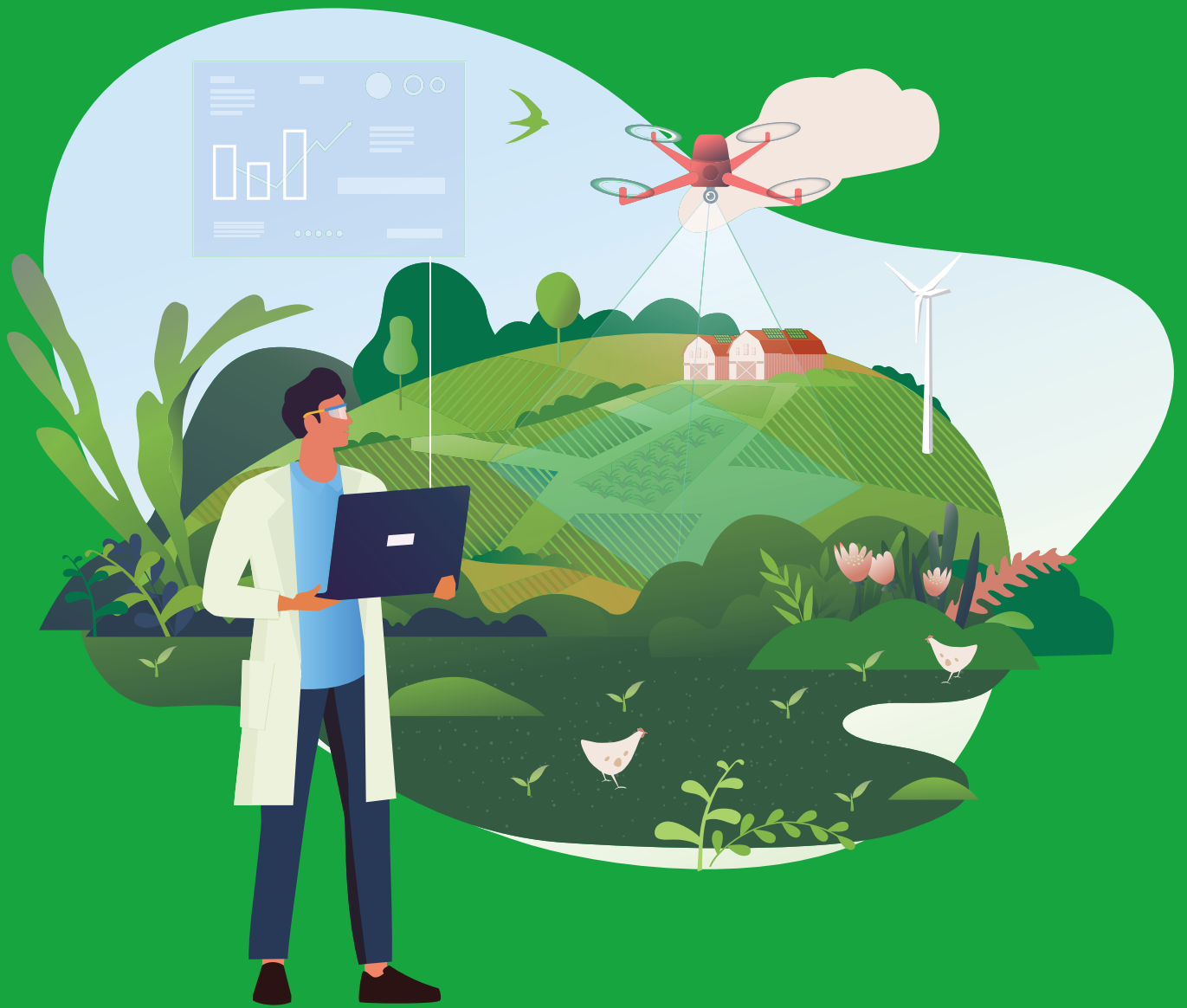
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AGRICULTURE



Name of the Start-Up

Adrise India Pvt. Ltd.

Founder Name

Mr. Prasad Kulkarni

Establishment Date

13/12/2017

Address

302, United Business Park, Road No. 11, Wagle Estate, Thane, Mumbai - 400604, Maharashtra

Contact Number

9867 365 247

Email

info@adriseindia.com

Annual Turnover

INR 20 Lakh

Number of Beneficiaries

1 Lakh+

Sector

Capacity Building



Overview of the Start-Up

Adrise India has developed an app 'Vande Kisan' to offer skill development to farmers, so as to increase their income. The firm develops, designs, and delivers various courses to farmers and rural youth.

Business Model

Vande Kisan works on a freemium based business model. The app comprises of combination of free and paid courses. The paid courses start from an affordable range of INR 10. The courses by the international universities from Brazil, Israel, etc. range up to INR 5000.

Technology Description

Platform: Android, java-based web Services: php (laravel framework) Backend: MySQL

Server: aws

Impact Generated

Adrise India has developed a platform called, 'Vande Kisan' which offers many courses and opportunities for increasing farmer's income. Adrise India offers the latest technology driven and cost effective solution to empower and uplift lives of the farmers. The firm stands by the vision of the Government to transform the country into a digitally empowered society and knowledge economy.

In their recent project at Haryana, Adrise India has helped more than 1 lakh farmers for making claims of their insurance and other information. Overall, the firm has inspired to educate 14 crore farmers and has touched 1,06,383 lives.

Adrise India is closely associated with Krishi Vigyan Kendra, Thane which is working for the transfer of modern agricultural technologies to the masses for increasing crop production and ensuring sustainable development. Adrise India has motivated thousands of farmers towards integrated farming, aiding doubling of farmers' income.





AGNEXT

Quality Food For Billions

Name of the Start-Up

AgNext Technologies

Founder Name

Mr. Taranjeet Singh Bhamra

Establishment Date

15/09/2016

Address

**AgNext Technologies, C-184,
Industrial Area, Sector 75,
Sahibzada Ajit Singh Nagar -
140308, Punjab.**

Contact Number

+91 91767 92666

Email

niharika.kapoor@agnext.in

Annual Turnover

NA

Number of Beneficiaries

**>2.5 Lakh Farmers and
>100 Clients**

Sector

Food Quality Assessment



Overview of the Start-Up

AgNext has been establishing trust in food value chains by making them safer, transparent and fairer. With digitalization of food quality assessment at its core, the firm offers a unique, integrated and AI-driven SaaS platform to agribusinesses for automated and instant food quality results.

Business Model

The business model comprises of using technology as an intersection for buying and selling, for instant assessment of quality, thereby establishing transparency and trust in trade.

AgNext is present at all food trade intersections such as:

- Farm gates/collection centers/Farmer Producer Organizations (FPOs)
- Warehouses
- Processing centers
- Millers
- SMEs to Large FMCG Companies
- Export/import hubs
- Cloud kitchens

Technology Description

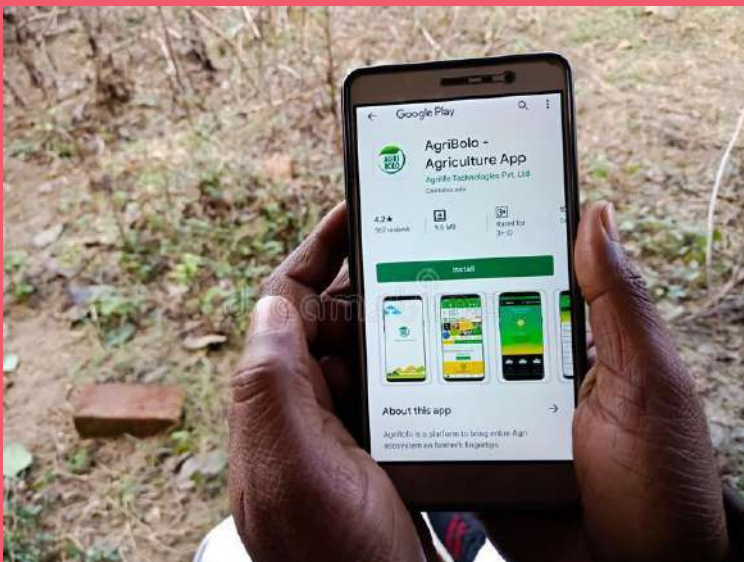
AgNext uses high-tech instant food quality assessment for fairer price determination. The Qualix AI engine uses molecular spectral analysis, computer vision, and IoT sensing solutions, delivered through an integrated hardware and software interface for accurate and instant quality analysis along with farmer-wise data for quality produce, managing suppliers by lots, and building business intelligence through quality maps. The hardware solution suite comprises of devices utilizing NIR spectroscopy for chemical quality assessment, AI-based image processing technologies for physical quality assessment of food commodities, and LoRA WAN-based IoT applications which provide quality estimations in multiple agriculture processes in spatial arrangements like curing, food storage, warehousing, and logistics.

Impact Generated

AgNext has boosted income of 2.5 lakh + farmers by facilitating fairer pricing and by selling produce faster with efficient market linkages. It has helped reduce:

- procurement cost by (upto) 30% for 150+ food & agribusinesses
- food quality testing time by (upto) 60%
- testing cost by (upto) 40%.





Name of the Start-Up

AgriBolo (Agrilife Technologies Pvt. Ltd.)

Founder Name

Mr. Arvind Godara

Establishment Date

18/04/2016

Address

**Shop Number 1, MidTown Plaza,
Purani Aabadi Sabzi Mandi,
Shri Ganganagar - 33500, Rajasthan.**

Contact Number

9549200005

Email

info@agribolo.com

Annual Turnover

INR 21 Crore

Number of Beneficiaries

30+

Sector

Marketing Solutions



Overview of the Start-Up

AgriBolo empowers farmers with latest mandi/weather updates, best farm practices, expert advice related to soil health and nutrition, crop prices, a variety of seeds and optimum usage of fertilizers. It also provides “Agri Mart” & “Agro Services” - a marketplace to buy/rent/sell agri-based products & services along with e-mandi services.

Business Model

Agribolo connects farmers to the agricultural value chain comprising of input suppliers, buyers, manufacturers and service providers. Its business model is a unique blend of input and output models. The firm has a strong presence in rural areas of Rajasthan and Haryana due to its rural distribution network, warehousing solution & collection centers, call center facility and on-field team for extension and service aggregation. AgriBolo, through its business model, helps farmers get a fair price for their produce.

Technology Description

AgriBolo has developed two applications- AgriBolo Agriculture app (for farmers) and AgriBolo Survey app (for the field team). Effective usage of AgriBolo Agriculture app has helped the firm form a good market chain and farmers get a good price for their yield. The Customer Relationship Management (CRM) helps in billing and the e-trading platform helps in the e-trading procedure.

Impact Generated

AgriBolo helps disseminate valuable information to farmers regarding crop growing and its management. The firm has created a link from farm level extension to the final marketing of the produce.

The firm, with a tagline of “for the farmer, by the farmer and with the farmer”, is inclined towards improving the lives of farmers across India by providing them 360-degree farming solutions through a call or at their fingertips. The company has provided employment opportunities to youth and is serving as a service platform that works for the betterment of the farming community as a whole using improvised management techniques.

The firm has helped the farmers obtain a fair price for the produce through its market chain.



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AGRIGATOR

MOVING GRAINS
SMARTLY & EFFICIENTLY



agrigator

Name of the Start-Up

Agrigator

Founder Name

Ms. Charu Chaturvedi

Establishment Date

11/09/2019

Address

**C-25, Rani Awanti Bai, Transport
Nagar, Kokta Bypass, Bhopal-
462023, Madhya Pradesh.**

Contact Number

9109998340

Email

founders@agrigator.co

Annual Turnover

INR 74.4 Crore

Number of Beneficiaries

**More than 10,000 shippers that
include traders and millers, 8000
trucks and more than 4500 carrier
providers are associated with the
platform**

Sector

Logistics Solutions



Overview of the Start-Up

Agrigator simplifies logistics and market intelligence for agri traders, millers and exporters. It connects agri shippers and carriers through a digital platform and provides agribusinesses on-spot logistics solutions, establishing efficient market linkages. Agrigator's logistics solutions enable timely, safe and reliable delivery of food and agricultural products and its market intelligence solutions enable stakeholders to make better decisions.

Business Model

Agrigator provides traders, millers and exporters services such as timely logistics and market intelligence. The firm is moving more than 1 lakh million tonnes of commodities every month within a turnaround time of less than 28mins, making on-spot logistics discovery easy and fast. The parties involved are charged a minimal fee on every transaction.

Technology Description

Agrigator uses technology to make agriculture freight more efficient, reducing costs & turnaround time for agri buyers and sellers.

The Agri Freight Index (AFI) is a prediction tool, which predicts and makes comprehensive analysis of freight trends for food and agriculture products. This helps in forecast of freight based on commodity, route, diesel prices, real-time supply & demand volatility and other thousands of data points. Agrigator is redefining market linkage with accurate market intelligence. Agrigator aims to bridge information gap for agri-business by giving them access to larger network. Power of data and network combined gives fair opportunity to grain buyers, sellers and carriers. Stakeholders are able to work together on a single platform.

Impact Generated

Agrigator provides real time information to agri traders, millers and exporters, enabling better decision making and transparency in the system. Its services are helping stakeholders save money and also earn more. Agrigator has digitalised the supply chain, made the logistics sector more efficient and opened multiple opportunities for the common man to become a farmer or get into transport business.





Name of the Start-Up

Agriplex Pvt. Ltd.

Founder Name

Mr. Mahesh G.Shetty

Establishment Date

27/10/2016

Address

**180, 1st Main Road, Mahalakshmi
Layout, Bangalore - 560086,
Karnataka.**

Contact Number

+91-7619516604

Email

ceo@agriplexindia.com

Annual Turnover

INR 4-5 Crore

Number of Beneficiaries

**More than 1 lakh Farmers
and Retailers Across India**

Sector

Inputs Supply

SPRAY YOUR CROP WITH
FARMER FRIENDLY
DRONE
MD-10Q

M-DRONE
MULTIPLEX DRONE PVT. LTD.

For More Information Call us : 080-61116333



Overview of the Start-Up

Agriplex Pvt. Ltd. is an emerging online e-commerce platform aimed at delivering quality agricultural inputs, accessories, services, and guidance at the farmers' doorsteps, thus ensuring improved crop yield and quality. The firm ensures transparency in buying quality agricultural inputs, and its integrated approach connects the public sector, stakeholders, farmers, dealers and delivery agents under a single roof. The firm also provides scientific know-how about crop management, free of cost.

Business Model

Agriplex Pvt. Ltd. has a farmer-oriented approach in harnessing available resources in a structured manner, providing quality products and services to clients. The firm ensures elimination of middlemen, and provides exceptional services to the farmers.

Technology Description

Agriplex Pvt. Ltd. aims to have a network of farmers across the country, offering best available services about agricultural products. They ensure transparency in buying quality agricultural inputs. The network has brought all government stakeholders, farmers, dealers and delivery agents under a single roof. Farmers can access the platform through an app, a website or a phone call, to avail the services and obtain information on crops, pests, diseases and package of practices.

Agriplex has attached themselves with some of the most trusted input suppliers and vendors of the industry. Importance is given to quality, while procuring products from vendors, so that the customers/farmers get quality products delivered at their doorstep. They have started an association with farmers and other stakeholders on the basis of market presence, competitive price structuring, domain proficiency and quality consciousness.

Impact Generated

Agriplex has integrated artificial intelligence solutions in farming. Over time, the firm has gathered thousands of photos of crops and pests that make it easy to identify pests, and effectively manage them.

They have explored options with third party IT vendors to integrate AI and ML, so as to provide self-service capabilities to farmers, for diagnosing pests and diseases by scanning their symptoms via a cellphone camera.

Agriplex is encouraged to extend their services to farmers across India after completing three years of operational experience, fulfilling 25,000 orders, and delivering agri-input of 55 top quality brands across Karnataka.





AgriVijay™

Empowering Farmers for Tomorrow

Name of the Start-Up

AgriVijay

Founder Name

Mr. Vimal Panjwani

Establishment Date

25/05/2020

Address

**AIC-ADT Baramati Foundation,
Post Box No. 35 (Malegaon
Colony), Sharadanagar, Baramati,
Pune - 413115, Maharashtra.**

Contact Number

+91 96070 60006

Email

vpanjwani@agrivijay.com

Annual Turnover

INR 90 Lakh

Number of Beneficiaries

**200+ Farmer Families Onboarded;
55+ Renewable Energy Stores**

Sector

Marketing Solutions



Overview of the Start-Up

AgriVijay is India's first marketplace of renewable energy products coupled with energy advisory using AI & ML for farmers and rural households. AgriVijay seeks to make them energy independent by reducing their dependence on fossil fuels such as diesel, firewood, etc., and increasing their savings, along with contributing to climate change mitigation.

Business Model

AgriVijay interacts with farmers & rural population with their Omni-channel touch points such as user friendly E-commerce Website, Mobile App, Field Sales & Technical Teams, Call Center & village/block level Franchise Model known as 'Renewable Energy Stores' which is a one stop store of Renewable Energy Products meant for Agriculture & Farmers. The firm provides experienced Energy Advisory & Recommendation on Renewable Energy. The firm understands energy needs of farmers along with the waste availability at their end & penetrates knowledge & usage of 'Renewable Energy Products', impacting the lives of thousands of farmers & rural households.

AgriVijay, to scale up their mission, has also envisioned a Franchise Model & has opened 'Renewable Energy Stores' at the Taluka level village which will be not only 'One Stop Shop for Renewable Energy Products' for the farmers but will also serve as 'After Sales Service Centers'-for products & services purchased by the farmers in the village, building trust and increasing awareness about the benefits of the Renewable Energy for Agriculture/Dairy Farming.

Technology Description

AgriVijay has a product portfolio of 150+ products by 25+ partners. Some of the most popular flagship products include:

- Solar: Solar Water Pump, Solar Inverter, Solar Dryer, Solar Cold Storage, Solar Street Lights, Solar Fan, Solar Water Heater, and Milk Can Chiller
- Biogas: Flexible Biogas Digester, Biogas Genset, Biogas Slurry Dewatering Machine, Biomass Briquette making machine, Smart Solar and Biogas meters
- Electric: Electric Tractor, Electric Tiller, Electric Charging Stations, Electric 2 Wheelers

Impact Generated

- 5000+ tonnes CO2/GHG Emissions Mitigated
- 10,000+ Farmer Families Reached
- 600+ Total Acreage of Land Irrigated
- 300+ Villages Penetrated
- 500Kg+ Waste Treated





Agrograde

Name of the Start-Up

Agrograde (Occipital Technologies Pvt. Ltd.)

Founder Name

Mr. Kshitij Thakur

Establishment Date

10/02/2017

Address

**B-67, Nice, Satpur, MIDC,
Nashik - 422007, Maharashtra.**

Contact Number

9833509817

Email

kshitij@agrograde.com

Annual Turnover

NA

Number of Beneficiaries

7 (FPOs and Traders)

Sector

**Grading, Sorting, and
Quality Control Solutions**



Overview of the Start-Up

Agrograde's cutting-edge AI solutions help improve the marketability of fruits and vegetables. The firm's offerings have brought much-needed standardization and transparency across the entire supply chain, and have reduced post-harvest food loss.

Business Model

- **Pay Per Use:** Agrograde offers grading, sorting, and packing services to farmers, FPOs, traders and exporters on a service model through their centers. This makes the technology accessible to everyone in the supply chain. One doesn't have to purchase the machine to be able to use it.
- **Machine Sales:** Anyone having their packhouse can purchase the machine to improve marketability of their produce while increasing the efficiency of their operations. It also creates an opportunity for new entrepreneurs.
- **Machine Lease:** Any entity who doesn't have the necessary financial aid to purchase the machine can use them on a lease model.

Technology Description

Agrograde's smart grading and sorting machines harness the power of artificial intelligence to detect quality parameters in real time for fast, reliable, and precise performance. An array of sensors and industrial-grade high-speed cameras capture images of fruits and vegetables, which are then analyzed by an AI algorithm for size, color, shape, maturity, rot, fungal damages, sprouts, physical damages and other major defects.

The produce is segregated into multiple grades based on the quality assessed by the AI system. The grading and sorting settings can be customized by the users within a minute and can be operated upon without any skilled technical workforce. The mechanisms used for grading and sorting are specially designed to work with minimal energy consumption and can be used in non-industrial environments such as farms and mandis.

Impact Generated

- Helped multiple FPOs connect with buyers
- Saved operational costs for FPOs by (upto) 50 percent
- Improved marketability of their produce, hence helping them get a premium price for their produce
- Trained and led to employment generation for youths
- Enhanced the marketability of the produce with a fair price because of grading using a sophisticated method
- Enabled the entrepreneur ecosystem





10 State of the art fulfillment centers across 5 states



Name of the Start-Up

AgroStar (ULink AgriTech Pvt. Ltd.)

Founder Name

Mr. Shardul Sheth

Establishment Date

10/03/2013

Address

ULink AgriTech Pvt. Ltd., Office No.106B, 6th Floor, E-Space IT Park, A1 Building, 46/1 Nagar Road, Pune - 411014, Maharashtra.

Contact Number

020-41504242

Email

hello@agrostar.in

Annual Turnover

NA

Number of Beneficiaries

NA

Sector

Inputs Supply

Tech enabled last mile delivery app enabling delivery in 7500+ pin codes and an AgroStar LMD partner



Some of our Happy Farmers



Overview of the Start-Up

AgroStar is working on the mission of #HelpingFarmersWin by providing them a complete range of agri solutions. AgroStar provides a combination of agronomy advice, from agri doctors/experts to information on agriculture and agri products that enable farmers to significantly improve their productivity and income.

Business Model

The AgroStar platform is a content-led commerce platform. Farmers can get free agronomy advice from multiple channels and then purchase their agri-input requirements on the platform.

Technology Description

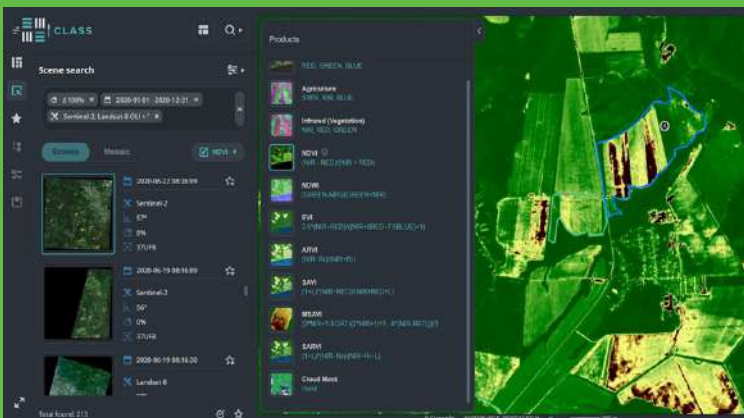
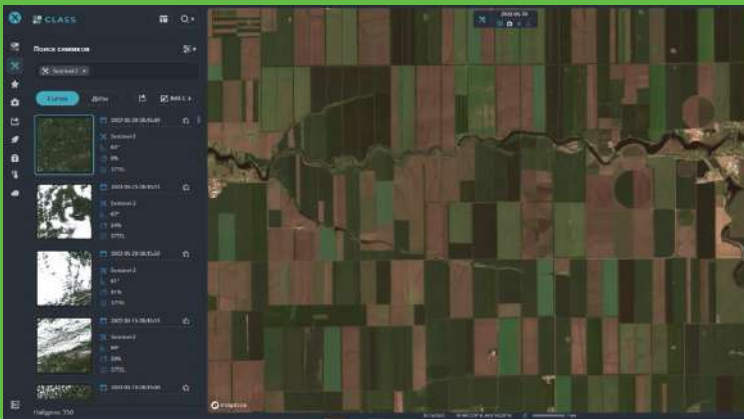
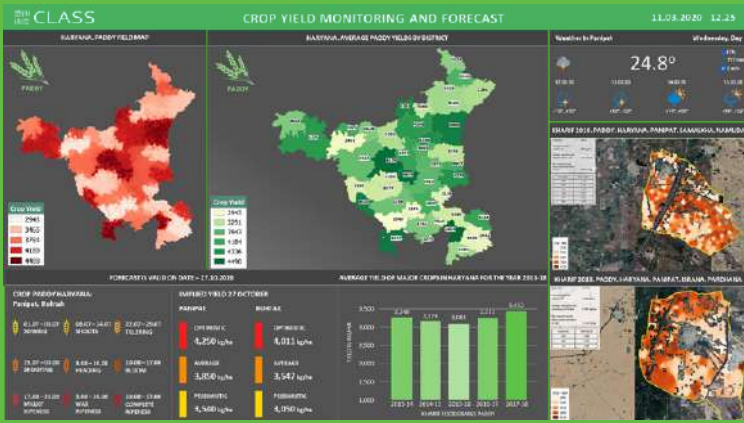
Every month 70 MN+ data points flow into the Agronomy Technology Stack called “Genie” and help give customized agronomy guidance at scale. AgroStar’s technology stack consists of:

- **Agro Wiki:** Agro Wiki is a package of practices for over 35 crops with scientific, stage-wise schedules with detailed advisory on product recommendations and usage.
- **AgroStar Farmer App:** Farmers use the AgroStar app to access content and watch agronomy focused videos of their preferred crop, post pictures of their crop problems to get advice, share and comment on fellow farmer posts, use voice search to look for agri products, and transact on the platform.
- **In-House CRM:** They have built a CRM to assist the team to sell and service customers. They collect over 200+ data points for a farmer across demographics, farm information, community engagement, and purchase behavior on the CRM.
- **Agro-Ex and Saathi Partner App:** AgroEx and Saathi Partner App is leveraged to manage a network of 500+ LMD and 1700+ retail partners respectively.

Impact Generated

- 30-100% increase in yields and income to farmers across crops and geographies.
- As per the CDC impact report, 82% of surveyed farmers reported that AgroStar brought an improvement in their lives’ and 73% farmers said that there was no alternative to AgroStar.





Name of the Start-Up
Agrotech Risk Pvt. Ltd.

Founder Name
Mr. Akhilesh Jain

Establishment Date
24/03/2017

Address
Trinity Tower, B-2, Sector -7, Noida-201301, Uttar Pradesh.

Contact Number
+91- 9871295377

Email
akhilesh@agrotechindia.co.in

Annual Turnover
INR 10 Crore

Number of Beneficiaries
2

Sector
Precision Agriculture (AI, ML, UAV)



Overview of the Start-Up

Agrotech Risk Pvt. Ltd. provides complete agri-tech and agri-fintech software solutions, as well as drone services. The firm is established with the mission of working towards precision agriculture and sustainable agricultural practices. Its advanced technologies bring better yields, more efficiency, and increased profitability to farmers.

Business Model

The firm provides crop monitoring, yield forecasting, and loss assessment services for agricultural operations by utilizing innovative technologies such as smart phones, smart devices, remote sensing methods, Unmanned Aerial Vehicles (UAVs) for capturing crop growth, and various other activities for overall development and value additions in the agriculture sector. It has developed in-house a very sophisticated AI and ML analytical software solution called CLASS (Crop Loss Assessment Support System) to integrate cutting-edge crop modelling, artificial intelligence, machine learning, and meteorological domain expertise to provide solutions to decision-makers in multitude of functionalities in various sectors such as Government, agri-input sector, commodity traders, banks, crop insurance, FMCG companies, etc.

Technology Description

CLASS is a comprehensive and intuitive platform that collects, processes and provides analytical data using air, field, and cyberspace from the entire farmer and farming base. Achieving the needed results is made possible by technologies like multispectral cameras, fixed-wing UAVs, moisture meters, and AI-assisted special processing software. CLASS practices the approach of collecting, combining, storing and processing heterogeneous data both in automated and interactive modes. The programme enables crucial operations including the detection of regions with slowed agricultural growth, unequal crop development, monitoring and forecasting of agricultural activity outcomes. The CLASS software evaluates the pertinent data to generate a descriptive analysis of crop loss assessment and delivers predictive analyses of crop production estimation and exact farming.

Impact Generated

The firm works with a variety of sectors such as Government, agri-input sector, commodity traders, banks, crop insurance, etc., has achieved greater than 85% of yield forecast accuracy, and has covered important crops like rice, maize, wheat, cotton, soybeans, and a wide range of others using crop modelling data technology. It is further developing more than 2000 crop intelligence models, and is working with esteemed organizations like MNCFC, PSU Banks etc. It has covered more than 15 million of hectares of agriculture land in India and has empowered 30000-40000 farmers in over 12 states with its technology-based services. Furthermore, its advanced technology has also been validated by the Union Ministry of Agriculture & Farmer Welfare.





Name of the Start-Up

Agrowave (Dagrowave Agscience Pvt. Ltd.)

Founder Name

Ms. Anu Meena

Establishment Date

20/06/2017

Address

**Magnum Tower 1, 8th Floor,
Golf Course Ext Rd, Sector 58,
Gurugram-122011, Haryana.**

Contact Number

7290098732

Email

anu@agrowave.in

Annual Turnover

Rs 150 Crore

Number of Beneficiaries

>10,000

Sector

Supply Chain and Logistics



Overview of the Start-Up

Agrowave has built a supply driven farm-to-market mobility supply chain in fruits and vegetables.

Business Model

With the motive of ending the farmers struggle in selling his produce from the farm gates at better prices, Agrowave has built a supply driven farm-to-market mobility supply chain of fresh produce, through an integrated network of Mobile Pickup Stations (MPS). Agrowave Kisaan App is India's first & foremost farm-to-mandi marketplace for farmers, transporters & traders. The app enables farmers to sell their produce from farm-gates in few clicks and get better rates. Farmers get to view real time mandi rates on the platform and can choose the best market (mandi) and best trader to sell their produce. They also get on-demand transport within few hours at the farm gate.

Technology Description

Agrowave's farm-to-mandi market place model helps connect farmers, transporters and traders. Agrowave has 3 mobile applications:

- AGROWAVE Kisaan App: Farmers can view mandi rates, transport rates and can sell from their farms
- Agrowave Bazaar: Buyers can post their demand and can get supply from farmers
- Agrowave Fleet: Drivers get trips with details of pickups and drops with optimised routes; they can navigate the best route on the app. The firm has best mapping engine with data analytics.

Agrowave's algorithms merge multiple small and marginal farmer, requests and align logistics in a few hours. Agrowave is optimizing and scaling fresh produce procurement at farm-gates by optimizing first mile logistics.

Impact Generated

Agrowave has created trust among 10,000+ farmers who get the best prices of their produce and convenience of selling at their farm gate. This has helped them save their multiple rounds of visit to the mandi and they can track the daily mandis rates on their phone at any time of the day. This saves a lot of time of the farmers and has brought a lot of convenience in their lives. Agrowave is collaborating with various FPOs, Government and private organizations to provide access to market for farmers. Agrowave pays attention to farmers' feedback and tries to provide them with solutions that meet their expectations.



BharatAgri

Name of the Start-Up

BharatAgri (LeanCrop Technology Solutions Pvt. Ltd.)

Founder Name

Ms. Sai Gole

Establishment Date

01/04/2017

Address

**Atlanta, WeWork Prestige Atlanta
Prestige, 80 Feet Rd, Koramangala
1A Block, Bengaluru- 560095,
Karnataka.**

Contact Number

90759 07522

Email

aman.verma@Bharatagri.com

Annual Turnover

INR 10 Crore

Number of Beneficiaries

NA

Sector

Farm Advisory Services



Overview of the Start-Up

BharatAgri is a farm-advisory led digital platform, which, after collecting more than 20 parameters from the farmers, provides farm decisions in form of a calendar of activities across nutrient management, and pest and disease management. Apart from providing farm advisory services, the firm has also forayed into other large businesses across agri-inputs, ecommerce, banking, financial services, insurance, etc.

Business Model

BharatAgri operates with a B2C revenue model driving subscriptions and agri-input e-commerce with the Indian farmers. The subscription product is a season long calendar (krushidarshika) which is available at a nominal fee of Rs. 500. The farmers are able to fulfil their agri-input needs with the help of e-commerce (krushidukaan) for agri-inputs on the platform which can be by selecting on cash on delivery mode, and received within 4-6 working days. BharatAgri is able to strengthen its platform with the help of strategic alliances with the banking, financial services, and insurance space as well by offering insurance and credit products in form of standalone products or bundled with the subscription/agri-input products.

Technology Description

BharatAgri has prepared unique algorithms which are a complex function of mathematics, economics and agronomy across more than 20 crops in the country. The app seeks geographical data of the farmer as per his agro-climatic zone. Additional data, based on more than 20 parameters, is also sought from the farmer. These parameters vary from weather parameters to water, soil nutrients, type of nutrition management and irrigation type. A personalized farm advisory model is generated for each farmer, which is also dynamic in nature. The farm mapping and monitoring feature enable the farmer to map his fields and receive farm updates in the form of an easy user interface, helping him take preventive actions to grow better.

Impact Generated

More than 30 lakh farmers use the android application of BharatAgri, and more than 1 lakh farmers have subscribed to the farm advisory product. The services have helped reduce farm costs by more than 10%. 65% of the farmer re-subscribe to the platform annually across different crops and drive more than 20% of referral adoption. The farmers rate BharatAgri's services in the range of 4.4-4.6. On play store, the app has a rating of 4.3+.





BharatRohan

Name of the Start-Up

BharatRohan Airborne Innovations

Founder Name

Mr. Amandeep Panwar

Establishment Date

17/06/2016

Address

**BharatRohan Airborne Innovations
Private Limited, B2/85, Basement,
Vishesh Khand, Gomti Nagar,
Lucknow - 226010, Uttar Pradesh.**

Contact Number

+91-9650588865

Email

info@bharatrohan.in

Annual Turnover

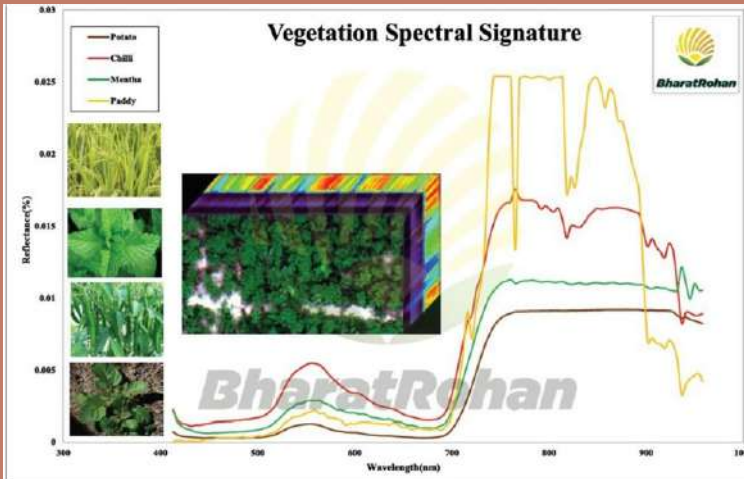
INR 2.5 Crore

Number of Beneficiaries

5700 Farmers

Sector

Precision Agriculture (Drone)



Overview of the Start-Up

BharatRohan empowers the Indian agriculture sector with an extraordinary in-depth understanding of lands and crops by using unique drone-based hyperspectral remote-sensing and artificial intelligence. The firm transforms data from the cameras into actionable information, which helps make integrated pest management and contract farming real and viable.

Business Model

The business model comprises of three components, (1) Farm Linkage (Inputs), (2) Crop Advisory (during production) and (3) Market Linkage (output) through its Crop Assure, Seed Assure and Source Assure Programmes.

Technology Description

BharatRohan uses AI and remote sensing to capture the aerial view of the standing crop via drones. The drones help carry out land parcel surveys; multiple data output formats help prepare land in the best way possible. A multi-spectral 5-band sensor drone helps assess the land for 30+ types of crop distress situations. It alerts the farmer in advance, giving him time to take necessary action, preventing crop loss.

Impact Generated

BharatRohan has provided numerous periodic alerts to the farmers containing actionable advisory. They have diagnosed the problems of the farmers using a non-destructive method of hyperspectral imaging and have created prescription maps. These prescription maps were then converted into recommendation reports in vernacular languages for farmers' usage. The advisory is for an early control of pest attacks, disease outbreaks and nutrient deficiencies.

BharatRohan also uses thermal imagery to diagnose the evapotranspiration rate of the plants and has suggested farmers regarding the frequency of irrigation that has led to an effective utilization of water resources. Mint farmers have saved Rs 3,600 per acre by reducing the usage of agri-inputs using BharatRohan's services. The farmer's yield has increased from 50 kg per acre to 70 kg per acre by following a package of practices generated by BharatRohan. This increase in yield due to crop saving has resulted in the generation of an additional income of around Rs 20,000/acre and an overall income of Rs 23,620, which is much more than what a traditional farmer earned earlier.





Name of the Start-Up

Bhungru

Founder Name

Mr. Rathin Bhandhra

Establishment Date

13/12/2017

Address

**Jayashree Green City, Flat No. 6A,
E Block, Pundag Road, NR.
Old Argora Chowk, Argora,
Ranchi - 834002, Jharkhand.**

Contact Number

9709045671

Email

teambhungru@gmail.com

Annual Turnover

Rs. 50 Lakh

Number of Beneficiaries

More than 3000 Persons

Sector

Water Harvesting



Overview of the Start-Up

Aqualine Bhungru's unique water conservation technique helps harvest rainwater or farm water into subsurface zones for increasing the groundwater level and using the same during lean periods for domestic, agricultural, and industrial use.

Business Model

Each unit of Aqualine Bhungru preserves rainwater that can provide irrigation water for 15-20 acres of farmland for 3-6 months, provided the area receives annual rainfall between 500 mm to 2100 mm. Bhungru delivers services in waterlogged areas, drought-prone areas as well as in areas affected by erratic rainfall.

Technology Description

Bhungru is a well-tested eco-friendly disaster-alleviation technology that purifies, injects and conserves rainwater, excess farm water and stormwater below the surface of the earth for lean or dry period use. Initially, Bhungru conducts surveys to know the path of rainwater movement, annual rainfall target of an area, defined water level, and possible locations for insertion and filtration.

Further the technical audit of subsoil formation, as well as water augmentation opportunity assessment is conducted, which sheds light on geological formation of the area, subsoil water catchment assessment, yield assessment, strata assessment and possible points for recharge. Based on the data obtained, filtration, injection, and storage systems are created to augment groundwater of a particular area.

Impact Generated

- One unit of Bhungru can conserve from one to ten million liters of rainwater or farm water depending upon the geo-hydrological condition of the particular place.
- Water stored using Bhungru helps in irrigation of Rabi crops whenever needed.
- Enhanced self-sufficiency in water supply.
- Bhungru has helped farmers save standing crops which would earlier get damaged due to excessive rainfall/floods, soil erosion etc.
- Recharge methods are environmentally attractive, particularly in arid regions.
- In saline or coastal areas and islands, rainwater provides good quality water.
- Reduced land subsidence caused by high pumping rate.



BigHaat.com
ONE STOP AGRO STORE


**Horticulture
Seeds**


Pesticides


**Tools and
Instruments**


**Plant
Nutrients**


Field Crops


Forage Seeds



BigHaat

Name of the Start-Up

**BigHaat Agro
Pvt. Ltd.**

Founder Name

Mr. Sachin Nandwana

Establishment Date

09/09/2015

Address

**BigHaat Agro Pvt Ltd,
132, 1st Floor, 3rd Cross
Road, 4th Phase, Dollar
Layout, Phase 4, J. P. Nagar,
Bengaluru - 560076, Karnataka.**

Contact Number

+91 7411053168

Email

sachin@bighaat.com

Annual Turnover

INR 16.68 Crore

Number of Beneficiaries

12 million farmers

Sector

Inputs Supply



Overview of the Start-Up

BigHaat leverages technology and data to help improve viability and profitability for farmers across the country. Via its app “Kisaan Bazaar”, the firm provides high quality and right agricultural inputs coupled with key insights on demand and supply and cost reduction strategies across various stages of distribution and marketing.

Business Model

BigHaat’s digital platform helps improve business efficiencies of agri-input manufacturers in the areas of distribution, marketing and operations using data-driven business intelligence. Their “Direct to Farmer” model helps keep the agro ecosystem transparent. This helps address issues related to plant-protecting agrochemicals, plant nutrients and agri implements.

Lately, BigHaat has ventured into dairy input services by partnering with the best quality brands in that segment. BigHaat has built strong partnerships with several logistics players across India and maximized its reach.

Technology Description

Big Haat’s data strategy has enabled various stakeholders of the agri input value chain to come together and build an end-to-end ecosystem for the farming community for promoting sustainable agriculture.

Farmers have been given multiple options to access the BigHaat platform for availing their products and services. The “Missed Call” option, in addition to offering digital (web/mobile app) options, has enabled them to reach out to farmers in remote areas as well. It has provided several advantages to the farming communities like providing timely access to quality and viable inputs, choice of brands and doorstep delivery service. It saves cost and time, provides pre and post-sale advisory and gives access to markets with 100% convenience.

Impact Generated

BigHaat has led to 10-15% reduction in input cost due to improved quality of the supplied agri inputs and has so far catered to more than 2,00,000 acres of farmland. It has provided free agronomy support to more than 12 million farmers across India whilst improving productivity and reducing the cost of labor by 40 percent. It has also set up procurement systems in Andhra Pradesh, Telangana, Uttar Pradesh, Rajasthan and Karnataka to process orders and has provided market access support to more than 1,00,000 farmers.





Name of the Start-Up

CoolCrop Technologies Pvt. Ltd.

Founder Name

Mr. Niraj Marathe

Establishment Date

15/11/2017

Address

**Annapurna, Shastri Pol, Raopura,
Vadodara - 390001, Gujarat.**

Contact Number

+91 9972767937

Email

info@coolcrop.in

Annual Turnover

INR 2 Crore

Number of Beneficiaries

9000 Farmers

Sector

Storage Solutions



Overview of the Start-Up

CoolCrop provides decentralized cold storage systems to help farmers, farmer co-operatives, entrepreneurs and aggregators to preserve, manage and market perishable harvest.

Business Model

CoolCrop works with farmers, entrepreneurs and organizations to develop sustainable preservation and processing solutions across the agricultural supply chain. It works with a variety of partners like non-government organizations, Farmer Producer Companies (FPCs), self-help-groups, farmer co-operatives, entrepreneurs, agricultural supply chain players as well as Government bodies to address the challenges of preservation and value addition especially for perishable crops. It provides customized and best-suited solutions, according to the storage needs of farmers or farmer co-operatives. The firm also provides customized financial solutions for small and marginal farmers and farmer companies to ensure access to low-cost, sustainable technologies and services.

Technology Description

CoolCrop's decentralized cold storage systems can be owned and easily operated by a farmer, farmer co-operative, or entrepreneur to store perishable produce immediately after harvest to reduce on-farm waste and distress sale during low-priced market conditions. CoolCrop also provides technology for centralized cooling and ripening solutions, which is efficient and sustainable. Integrating these technologies with renewable energy technologies (especially solar powering systems) is where CoolCrop's domain expertise lies.

Impact Generated

- No. of systems installed: 50 (in Karnataka, Gujarat, Bihar, Odisha, West Bengal and Telangana over three years)
- No. of farmers with access to cold storage at the farm level: 9000
- Reduced crop wastage from 25% to less than 5%
- Average increase in farmers'/farmer groups net income due to access to cold storage: 30%
- Average capacity utilization: 35%
- Minimum and Maximum storage duration (relative to crop being stored): 1 week to 4 months





Cropin

Name of the Start-Up

Cropin Technology Solutions

Founder Name

Mr. Krishna Kumar

Establishment Date

26/08/2010

Address

3rd Floor, 1021, 16th Main road, Tavarekere, BTM 1st Stage, Bengaluru - 560029, Karnataka.

Contact Number

9620435222

Email

ankita.valeja@cropin.com

Annual Turnover

NA

Number of Beneficiaries

7 million farmers globally; 250+ business enterprises

Sector

Precision Agriculture (SaaS and AI-Data-Based Solutions)



Overview of the Start-Up

Cropin provides smart SaaS and AI- data-based solutions to agribusinesses globally.

Business Model

Cropin is a leading AI and data-led agri-tech organization that provides software-as-a-service solutions to agribusinesses and government agencies globally, using deep learning. Cropin's B2B model, based on the vision of 'maximizing per acre value', primarily focuses on:

- Maximizing Visibility – by providing access to finance (rural credit), and enhancing supply chain efficiency
- Minimizing Risk – by enabling risk cover access, and predicting market volatility and supply
- Minimizing Cost – by building climate resilience, and improving traceability and compliance
- Maximizing Revenue – managing crop loss, and improving yield and quality
- The firm has a committed annual recurring revenue of \$15+ million.

Technology Description

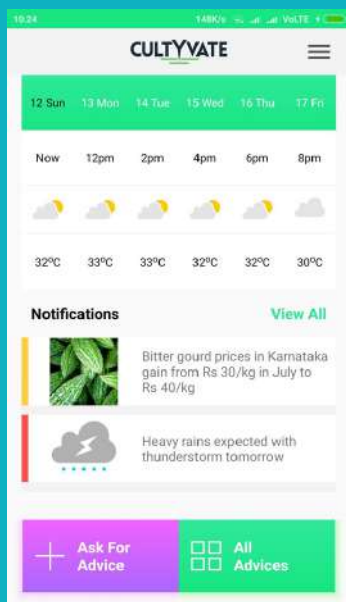
Cropin uses cutting-edge technology like artificial intelligence, machine learning, and remote sensing to create an intelligent, interconnected data platform. Cropin combines computer vision with deep-learning algorithms, IoT on multispectral imagery derived from aerial scouting (satellites and drones), field scouting data, and hyperlocal weather data. The various technologies used by Cropin are as follows:

- **SmartFarm:** is a robust digital farming technology that drives digital strategy and provides complete visibility of resources, processes and performance on the field.
- **SmartRisk:** a predictive and prescriptive business intelligence solution that leverages agri-alternate data for effective credit risk assessment and loan recovery assistance.
- **SmartWare:** is a comprehensive solution for packhouse, processing, and export companies that enables farm-to-fork traceability and compliance, quality control, and flexible inventory management.
- **AcreSquare:** is a unique farmer application that helps companies interact directly with their farmers, share content, educate them, and provide consultation.
- **PlotRisk:** is an application that enables a farmer to remotely monitor his/her farm plot through satellite imagery and analyses every farm pixel to provide crop health, yield estimation, water stress, pest, disease and other parameters predictions at a plot level.

Impact Generated

- Cropin has become one of the allies of Global Action Agenda for Innovation in Agriculture, also known as the #climateshot. It has also become a member of the newly formed European Carbon+ Farming Coalition to accelerate the progress of decarbonization goals, as part of the European Green Deal.
- The firm has helped digitalize 16 million acres of farmlands, managing 388 crops and more than 9,400 crop varieties, benefitting nearly 7 million farmers globally.





CULTIVATE

Name of the Start-Up

cultYvate (Farms2Fork Technologies Pvt. Ltd.)

Founder Name

Mr. Mallesh T M

Establishment Date

13/06/2016

Address

322, 5th Main, BTM 4th Phase, Vijaya Bank Layout, Bangalore - 560076, Karnataka.

Contact Number

9738634253

Email

malleh@cultYvate.com

Annual Turnover

INR 1.2 Crore

Number of Beneficiaries

4000 + paddy growing farmers

Sector

Precision Agriculture (IoT, AI, Remote Sensing, and Machine Learning)



Overview of the Start-Up

Farms2Fork Technologies (F2F) offers a platform, 'CultYvate', that promotes precision agriculture by integrating sensors, IoT, AI, remote sensing, machine learning and various crop models to arrive at precise activities and watering after considering various static and dynamic parameters for several crops and field combination.

Business Model

CultYvate works with exporters/farmer cooperatives/Farmer Producer Organizations/advisors who are already working with farmers growing paddy using flood irrigation and tubewell.

Technology Description

CultYvate is focused on enabling Indian farmers to measure various ground-level parameters (moisture below the ground, water level above the ground, etc.) which further helps them control parameters, get better quality and higher yield. The company is built on the following 3 pillars:

- **Sensors:** Various agriculture sensors are used to collect data using both ground sensors and remote sensors using satellite data.
- **Internet of Things (IoT):** Collect data from crops seamlessly without any manual intervention and act based on the intelligence gathered and agronomist recommendations.
- **Artificial Intelligence (AI):** Leverage the intelligence gathered to predict the pest and disease occurrence.

The sensor measures the moisture 15 cm below the ground and water level 5 cm above the ground. When these levels are breached, the system automatically sends a message to the farmer asking him to either start or stop the irrigation as the situation demands.

Impact Generated

CultYvate has helped farmers cultivating paddy:

- Save around 50% water
- Realize around 30% additional yield





ecozen

Name of the Start-Up

**Ecozen Solutions
Pvt. Ltd.**

Founder Name

Mr. Devendra Gupta

Establishment Date

20/10/2010

Address

**S.No 134/1,134/2,130/3, Dehu
Road, Katraj-Dehu Road Bypass,
Punawale, Pune - 411033,
Maharashtra.**

Contact Number

1800 121 7515

Email

info@ecozensolutions.com

Annual Turnover

INR 76 Crore

Number of Beneficiaries

76,168 Farmers

Sector

Cold Storage Solutions



Overview of the Start-Up

Ecozen Solutions Pvt. Ltd is a technology-driven company enabling farm-to-fork value chain for perishables with 3 core offerings: Ecotron (solar-enabled irrigation pumps), Ecofrost (solar-powered cooling solution) and Eco-Connect, which works across production, management, and marketing of perishable agri commodities.

Business Model

Ecofrost:

- Sale: Farmers avail loans or pay the upfront cost of the system.
- Lease or rental: The lease amount is charged on a monthly basis. Majorly useful for the crops that have a short life cycle.
- Community model (Pay per use): Used in mandi and other aggregation points where the farmer/trader pays on a kg basis for the use of Ecofrost.

Ecotron:

- Controller: Sale of controllers to system integrators
- Combo: Sale of controllers along with pumps and motors to system integrators
- Installation: Participating in the state bids for solar pump installations

Technology Description

Ecofrost

- Ice Core Technology: Thermal backup plates, offers up to 30 hrs back up, no chemical batteries for backup, no need of diesel generators
- Inverter Tech: Variable frequency compressor
- Ecozen AI: Predictive analytics, 120 data points, real-time room condition monitoring on mobile
- Mobile Application: Useful to store multiple commodities, automatically selects room temperature and humidity level, gives better life to commodity and no wastage
- Portability: Ease of loading, unloading, and shifting to a cold room
- Refrigeration system: Direct cooling mechanism with vertical arrangement of evaporators

Ecotron

- High grade stainless steel, durable, and resistant against corrosion
- Highly durable SS 304 casting motor parts
- Easily serviceable water-cooled motors
- IoT modules to monitor each system remotely on a real-time basis
- Strong data analytics provide insights on a system's health

Impact Generated

- Generated 924 million kwh of clean energy
- Abated 1,062 metric tons of CO2 emission and 308 million liters of diesel consumption
- Reduced 19,430 MT of wastage
- Increase in 286 thousand acres of curative arable land





Name of the Start-Up

EF Polymer Pvt. Ltd.

Founder Name

Mr. Narayan Lal Gurjar

Establishment Date

03/10/2018

Address

**Kerdi Biraj ka Khera, Boraj,
Rajsamand - 313324, Rajasthan.**

Contact Number

+91-9460253708

Email

support@efpolymer.com

Annual Turnover

INR 45 Lakh

Number of Beneficiaries

3000+ Farmers

Sector

Input Management (Fertilizer)



Overview of the Start-Up

EF Polymer Pvt. Ltd., a green innovative company, provides products and sustainable input solutions to save water and fertilizer usage. Its flagship product 'Fasal Amrit', a 100% organic super absorbent polymer made from bio-waste from juice shops, helps reduce irrigation water and fertilizer requirement, and generate greater yield without affecting the soil and the crop.

Business Model

EF Polymer Private Limited sells Fasal Amrit to farmers through various e-commerce channels as well as via FPOs and NGOs. This product costs INR 1750 for 1 acre of land.

Technology Description

EF Polymer Private Limited, using advanced technology, develops environmentally friendly organic polymers that upcycle the residues of inedible parts of fruits and vegetables. The company's mission is to upcycle biodegradable waste (food waste) and convert it into low-cost, sustainable agricultural materials that are accessible to emerging countries, solving global environmental problems related to agriculture such as drought.

Impact Generated

Fasal Amrit, a hydrogel made from bio-waste and natural plant material (fruit peels and vegetable peels), is 100 percent biodegradable, and helps:

- Improve water holding and the retention capacity of the soil
- Reduce leaching of the nutrients
- Enhance yield and growth of crops
- Improve microbial growth of soil fertility
- Reduce irrigation requirements

Fasal Amrit is in use in more than 5000 acres of land. It has helped save more than 3 billion litres of water, reduce fertilizer requirement by 20 percent, increase incomes by 20 percent and production by 30 percent—positively impacting 3000+ farmers.





fanidhar[®]
MEGA FOOD PARK
khet se bazaar tak...

Name of Company

**Fanidhar Agrotech
Pvt. Ltd.**

Founder Name

Mr. Krunal Ravjibhai Patel

Establishment Date

09/08/2010

Address

**C89V+994 Mudarda Village, Jotana
Taluka, Mehsana - 382705, Gujarat.**

Contact Number

+91 95864 32323

Email

Rushabh.patel@fmfp.co.in

Annual Turnover

INR 100 Crore

Number of Beneficiaries

3000+ Farmers

Sector

Food Processing



Overview of the Company

Fanidhar Mega Food Park aims to provide a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers to ensure maximizing value addition, minimizing wastage, increasing farmers' income and creating employment opportunities particularly in the rural sector.

Business Model

Fanidhar Group is one of the largest aggregator and supplier of Oil Seeds to Adani Group. It is one of the leading food processing infrastructure providers in the vicinity of the capital city of Gandhinagar and the Metro City Ahmedabad in Gujarat State. It has set up a dedicated Food Park exclusively for food processing industries in Mehsana Region with a motto of linking farmers to the processing companies and markets. With its vast horticultural and agricultural produce, the group offers unmatched availability of raw material to Food Processing Companies. The Food Park typically consists of supply chain infrastructure including collection centers, primary processing centers, value-addition centers in the form of Central Processing Center and Distribution Logistics. The group also has interests in real estate, and pioneer residential schemes.

Technology Description

Fanidhar has one CPC (Core Processing Center) with 52.68 acres of land at Mudarda and 5 PPCs (Primary Processing Centers) at Sabarkantha, Anand and Vadodara (Gujarat). The project aims to provide food processing infrastructure to the prospective entrepreneurs, farmer groups, exporters etc. who could set up various processing units related to agricultural and horticultural strengths of the catchment region. Core infrastructure facilities include warehouse of about 6000 MT capacity, cold storage of about 5000 MT capacity, frozen storage (2000 MT), multi fruit processing line (2 TPH), F and V grading, washing, sorting line (2 TPH), potato flakes line (12 TPD), IQF (1 TPH), a food testing lab, Reeper Vans (12MT ₹4Nos, 6MT ₹4Nos).

Impact Generated

- The group's world class, modern infrastructure facilities in storage and processing have helped reduce wastages of perishable commodities and improve processing.
- The group has helped link farmers to the processing and markets, and assured a better income for the farming community.
- The group's systematized grading and sorting devices have helped overcome the drawbacks of the local marketing system, enabling safe food to consumers and fair price to farmers.





Name of the Start-Up

Farmers Fresh Zone Pvt. Ltd.

Founder Name

Mr. Pradeep P S

Establishment Date

12/05/2016

Address

Kerala Technology Innovation Zone, Kalamaserry, Kochi - 683503, Kerala.

Contact Number

7293943993

Email

ceo@farmersfz.com

Annual Turnover

INR 7.7 Crore

Number of Beneficiaries

2000+ farmers and more than 1 lakh happy customers

Sector

Supply Chain Management





farmpal

Name of the Start-Up

Farmpal

Founder Name

Mr. Puneet Sethi

Establishment Date

16/10/2017

Address

**Pimple Nilakh, Baner, Pune - 411027,
Maharashtra.**

Contact Number

9686377335

Email

puneet.sethi@farmpal.co.in

Annual Turnover

INR 9 Crore

Number of Beneficiaries

10,000+ Farmers

Sector

**Supply Chain Management
and Marketing**



Overview of the Start-Up

FarmPal leverages high-end technology to help farmers sell their harvested produce directly to business consumers, thereby addressing the problems faced by farmers in marketing and reducing post-harvest losses.

Business Model

FarmPal is connected with over 10,000 farmers in Maharashtra and has more than 5,000 retailers in Mumbai and Pune. It delivers more than 300 tons of fresh fruits and vegetables to local kiranas, sabjiwalas, modern retailers like More, Star Bazaar, Big Basket, Reliance, Swiggy, Zepto, etc. with less than 3 percent wastage.

Technology Description

FarmPal has two major components in its supply chain. One is the home-grown, fully owned IP front-end mobile app for customers, which comprises order management and online payment gateway. The app also consists of sales and delivery modules to streamline and automate the delivery processes and payment collection, enabled through advanced analytics and basic AI techniques for supply-demand predictions and forecasts.

The second component is an industry leading Oracle ERP solution at the backend that helps manage inventory, order cycles, supply-demand forecasts, accounting and overall analytics for all functional areas. In addition, it uses complementary technologies for sales automation and optimized route planning for last-mile deliveries.

Impact Generated

FarmPal makes the farmer access the market with no hurdles through its efficient agri supply chain. It communicates in advance the purchase price of the produce through its local mandis, ensuring a price that is 10-20 percent premium over what the farmers receive in mandis. More importantly, FarmPal pays farmers directly via the digital payment method or cash on delivery in certain situations. Farmers are assured of money in the bank within 2-3 days of their transaction with FarmPal. Customers are assured of a better, reliable, professional service with higher and consistent quality of produce.

In addition, FarmPal provides farmers (especially those with marginal land holdings) the details of demand for a crop or the need for the quality and quantity of new produce. Knowing the demand beforehand helps farmers plan their sowing, harvesting and delivery cycles accordingly—maximizing their earnings, and ensuring yearlong demand and earnings for sustaining the business.





Name of the Start-Up

Freshokartz Agri Products Pvt. Ltd.

Founder Name

Mr. Rajendra Lora

Establishment Date

15/12/2016

Address

715, 716 Elements Mall, DCM, Ajmer road, Jaipur - 302021, Rajasthan.

Contact Number

9413959416

Email

Rajendra.lora@freshokartz.com

Annual Turnover

INR 22 Crore

Number of Beneficiaries

9000 farmers, 200 B2B customers, 100 agencies

Sector

Inputs Supply



Overview of the Start-Up

Freshokartz is India's social commerce platform for farmers. Freshokartz works with village-level entrepreneurs (VLEs) known as "Saarthis". Saarthis provide Freshokartz products like agri inputs to farmers and assists them in soil testing and market linkages.

Business Model

Freshokartz has a network of 90,000 farmers in 15 districts with 40 farm centers for their affordable and farmer-friendly 2000 products. They've 200 B2B customers and have partnered with 100 agencies/organizations. Freshokartz provides 5-7% commission on each transaction to its saarthis. Freshokartz works on a gross margin on each transaction. It usually procures most of the agri inputs directly from companies.

Technology Description

- Freshokartz has a mobile application, where saarthis place orders on behalf of their group of farmers. Freshokartz delivers products to saarthis and they deliver these to farmers. This app uses algorithms to recommend products to farmers and helps him with other activities too.
- Supply of seeds, fertilizers, pesticides, etc., for farmers: Just with a placement of order via phone call, they deliver basic inputs required for the cultivation of crops at an affordable rate to farmers' doorstep.
- Output: Through transparent weighing and rate for a crop, farmers can easily sell their yield to Freshokartz. This leads to a direct connectivity with the market and in turn farmers receive immediate payment for their produce.
- Crop Advisory: Freshokartz, through a 24x7 helpline, via excellent agri experts, helps assist farmers in soil testing, free field and crop inspection, consultation, prevention and cure of crop diseases—providing guidance from sowing to reaping.
- Financial: Freshokartz provides credit facility to farmers during cultivation and in the purchase of agricultural equipment.

Impact Generated

- Freshokartz has helped 10,000+ saarthis generate income.
- Farmers get all their services at one place through saarthis.





Gramworkx
FARMING • FUTURE • TECHNOLOGY

Name of Start-Up:

GramworkX Agrotech Pvt. Ltd.

Founder Name

Mr. K A Gopalakrishnan

Establishment Date

03/01/2019

Address

**GramworkX, Keonics, Phase
3, 1st Sector, HSR Layout,
Bengaluru-560102, Karnataka.**

Contact Number

+91-9820632338

Email

gopal@gramworkx.com

Annual Turnover

INR 30 Lakh

Number of Beneficiaries

**3000+ Farmers; 10+ Farmer
Producer Companies**

Sector

**Precision Agriculture (Artificial
Intelligence and Machine Learning)**



Overview of the Start-Up

GramworkX is an integrated agri-tech platform that helps farmers and agri-businesses take decisions based on data obtained through modern technologies. The firm has built a suite of technology that integrates tools such as IoT, satellite data, weather monitoring to enable analytics, AI and automation. This has led to an efficient farm management, better resource utilization and a transparent business flow across the stakeholders.

Business Model

The firm's AI based farm and crop management tool helps obtain farm specific information and gathers localized weather parameters through sensor based technology. The tool enables to geo-fence the farm and provides information regarding parameters like Normalized Difference Vegetation Index (NDVI)/Enhanced Vegetation Index (EVI) from the satellite data. Further, irrigation automation enables remote control of tools within the farm from anywhere in time.

The firm provides advisory regarding geography, crop and soil which helps farmers take accurate, proactive and preventive decisions. The SaaS platform enables to cross connect the business units/ FPOs with the farmers as well as others in the value chain.

Technology Description

Gramworkx's Kisan app or web dashboard and IoT device aids farmers in irrigation schedule, pest and disease management. The key modules include:

- **Irrigation Management and Planning:** Provides real time information on how much area to irrigate and when to irrigate based on ET. The founder studied over 40 years of data in key agro climatic zones and developed ML models which predicts irrigation upto 1 week in future.
- **Spray Schedules:** Favourable time of the day for spraying chemicals based on weather conditions is conveyed to farmers
- **Disease Prediction and Recognition:** Two tools have been developed, one that helps in proactive warnings based on localised weather data and the other one is an image based tool that helps in pest and disease recognition.

Impact Generated

Gramworkx application and technology is being used by more than 3000+ farmers in 6 states of western and southern India. The firm's focus is on horticultural crops as they are perishable in nature. The firm's technology has helped save 500 cubic meter of water per hectare across 140 Mha, hence mitigating climatic risk.





GreenJams

Name of the Start-Up

Green Jams

Founder Name

Mr. Tarun Jami

Establishment Date

31/10/2019

Address

**Baghpat Road, Jani Khurd,
Meerut - 250501, Uttar Pradesh.**

Contact Number

+919591170791

Email

tarun@greenjams.org

Annual Turnover

INR 5 Lakh

Number of Beneficiaries

100+ Farmers

Sector

Recycling Agricultural Waste



Overview of the Start-Up

Greenjams makes carbon-negative and thermally insulating building materials such as agrocrete solid blocks, hollow blocks, and plaster out of crop residues and industrial by-products.

Business Model

GreenJams sells agrocrete solid and hollow blocks and plaster to real estate developers, builders, contractors, as well as individual home-builders. The blocks have a shelf life of at least 75 years, and are bigger and 30 percent lighter than the conventional red bricks. The plaster comprises of a ready-made two-part premix for premium quality, custom and artisanal wall finishes. It is carbon-negative, thermally insulating, water-resistant, termite and pest resistant, and has excellent life and durability.

The firm works in both B2B and B2C models. It utilizes funds for scaling up operations and piloting innovative franchise manufacturing business models for its other product BINDRTM.

The firm is being financially supported through grants by a-IDEA, NAARM-TBI, Hyderabad and Punjab Agri Business Incubator (PABI), Punjab Agricultural University, Ludhiana.

Technology Description

GreenJams collects agricultural residue like paddy straw, cotton stalks, bagasse, etc. before burning, chops them, and mixes them with locally available lime and industrial wastes such as fly ash, clays, GGBS, silica fumes, etc., to produce meaningful building materials with adequate strength. The manufacturing process is based on a patented low-energy, low-resource advanced alkaline activation chemical technology. These high quality, carbon-negative building materials can be used as replacement of AAC, red bricks, etc.

Impact Generated

The firm has so far procured 250 tonnes of paddy straw and prevented it from being burnt, abating 440 tonnes of carbon dioxide and 50 tonnes of particulate matter emissions. Its products have helped remove 10 percent of global carbon dioxide emissions, reduce cost of construction by 50 percent, and improve energy efficiency of the building by 25 percent.





Jai Kisan

Name of the Start-Up

Jai Kisan (Greenizon Agritech Consultancy Pvt. Ltd.)

Founder Name

Mr. Arjun Ahluwalia

Establishment Date

11/09/2017

Address

7th Floor, Office number 711, Trade Centre, Bandra Kurla Complex (BKC), 309, Kalina, Bandra East Mumbai - 400070, Maharashtra.

Contact Number

+91-87929 10864

Email

contact@jai-kisan.com

Annual Turnover

NA

Number of Beneficiaries

8,500 Micro Small and Medium Enterprises (MSMEs), and 25,00,000 Farmers

Sector

Financial Services



Overview of the Start-Up

Jai Kisan is a rural focussed Neo Bank, whose application–Bharat Khata provides a one stop solution for rural businesses and individual’s financial needs starting with credit for online and offline, income-generating, rural commerce transactions.

Business Model

Jai Kisan has leveraged the captive relationship between the businesses, farmers, and rural individuals in a B2B2C model. The firm provides working capital finance to B2B players, affordable credit to farmers and rural individuals. It works and provides a comprehensive financing solution to the agriculture value chain- from retail outlets to large corporations. Jai Kisan introduced India’s first-ever fully digital Buy Now, Pay Later (BNPL) facility for farmers and rural businesses. Jai Kisan has aimed to:

- provide formal credit to rural customers and enable them to purchase high quality products such as seeds, fertilisers, crop protection products and related equipment.
- fuel growth for everyone by lending across the value chain.
- provide the entire suite of financial services to the rural consumer.

Technology Description

Jai Kisan leverages technology to ensure a seamless customer experience for rural individuals. The firm boasts of digital infrastructure such as end-to-end tech stack which offers and manages financial services. It optimises tech capabilities to enhance underwriting through customised credit score.

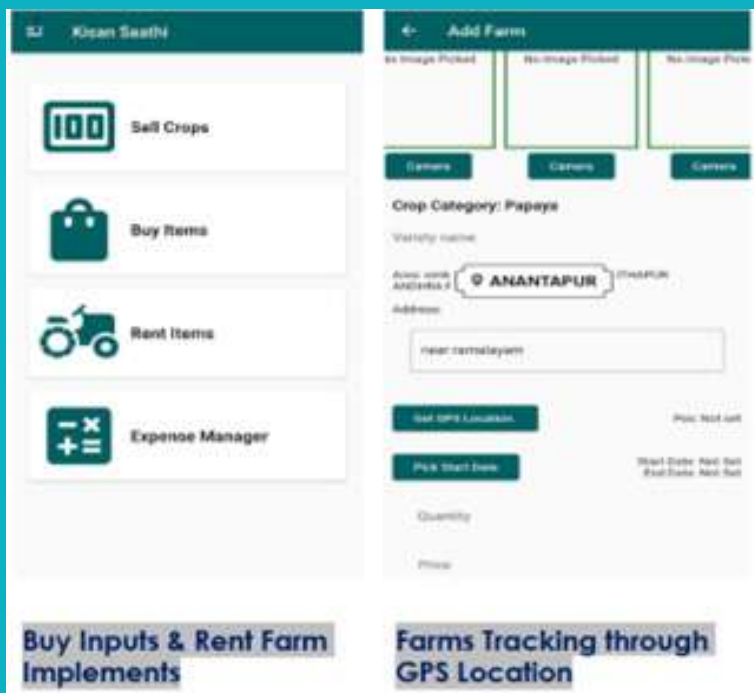
Jai Kisan ‘s Bharat Khata app is a one-stop solution that enables rural businesses to digitally manage the business, and avail financing at their convenience. The app simplifies tracking of orders, inventories, payables, repayments and management of dues, thus creating a digital footprint for the entity. Furthermore, it enables the businesses to extend financing at the point-of-sale. The process to use the app is very simple:

- Step 1: Download Bharat Khata and setup business profile
- Step 2: Apply for BNPL Limit or Supply Chain Financing
- Step 3: Complete onboarding in a few clicks and get approved for a limit in minutes!
- Step 4: BUSINESS IS READY - Extend BNPL to customers or use SCF to finance transactions!

Impact Generated

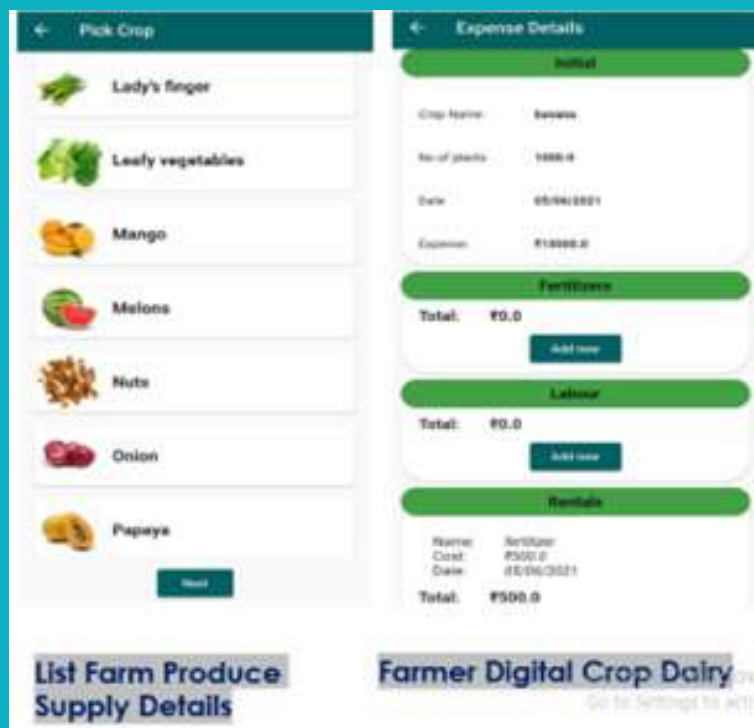
Jai Kisan makes credit accessible in 10 states, around 120+ districts across India; a large proportion of loan-booking caters to the small and marginal farmers. The firm offers agro-equipment and input financing to 8,500 Micro Small and Medium Enterprises (MSMEs) and 25,00,000 farmers. It is helping the country achieve the goal of financial inclusion as it offers credit to even new-to-credit customers with no credit history; 50 percent of the borrowers have no credit history and 29% of the borrowers are women.





Buy Inputs & Rent Farm Implements

Farms Tracking through GPS Location



List Farm Produce Supply Details

Farmer Digital Crop Dairy



Name of the Start-Up
**KisanSaathi
 (TradeDoot
 Agriculture
 Marketing Solutions
 Pvt. Ltd.)**

Founder Name
Mr. Prem Rathod

Establishment Date
11/02/2015

Address
**Sy No 184/3, Sri Veerabhadreshwar
 Industries, Kalaburagi Road,
 Sulepeth, Tq Chincholi, Kalaburagi,
 Kalaburagi (Gulbarga)- 585324,
 Karnataka.**

Contact Number
+919620963764

Email
prem Rathod@kisansaathi.com

Annual Turnover
INR 1.45 Crore

Number of Beneficiaries
**>50000 Farmers, >20 Strategic
 Partners, Farmer Producer
 Organizations**

Sector
Consultancy Services



Overview of the Start-Up

Kisan Saathi, as a platform, acts as a one stop solution for farmers/FPOs, agri commodity buyers and other participants across value chain for various agriculture related needs like farm inputs, farm consultancy services, post-harvest practices, output produce marketing, etc.

Business Model

KisanSaathi is a platform that connects farmers, manufacturers, FPOs, sellers, buyers, processors, etc. KisanSaathi has a unique FPO centric business model, where help is provided to FPOs for:

- Increasing their internal efficiencies (best practices training is complimentary)
- Acquiring key accounts for long term associations
- Selling their produce , providing market access and exploring new geographies
- Getting a better price realization by eliminating profit leaks in supply chain
- Getting access to short term renting options for equipments
- Upgrading to latest technology and innovations from partners
- Getting connected to good quality input material manufacturers
- Getting access to short-term working capital

Technology Description

- KisanSaathi Farmer app enables farmer to directly purchase from FPO and take rentals put up digitally by FPO. Farmer can also list his produce and connect with buyers digitally through FPO sharing necessary information like crop name, variety name, expected harvest, quantity, price, location and further details with pictures taken at farm. A digital diary is provided to the farmer to list his expenses.
- KisanSaathi FPO app enables FPO to purchase at bulk from manufacturers, connect their farmers produce to buyers, sell inputs and rent to their community.
- KisanSaathi Buyer app connects buyers with FPOs.
- KisanSaathi Partner app connects manufacturers with FPOs.

Impact Generated

Social Impact

- Self-sustainability of FPOs
- Improved income and standard of living of farmers
- Empowered farmers

Economic Impact

- Overall higher income per acre
- Better price realization to farmers
- Adopting modern AgTech solutions
- FPOs profitability increases compared to conventional model
- A step towards reduced multiple handling & wastage etc.

Environmental Impact

- Sustainability in agriculture production
- Reduced food wastage & cost of cultivation
- Increased percentage of eco-friendly way of farming
- Effective change in conventional supply chain system





Krushak Mitra Agro Services

Name of the Start-Up

Krushak Mitra Agro Services Pvt. Ltd.

Founder Name

Mr. Shrirang Sirsikar

Establishment Date

14/12/2015

Address

**Mitrangan Campus, Lonarwadi Post,
Sinnar-Ghoti Highway, Sinnar, Nashik
District - 422103, Maharashtra.**

Contact Number

+ 91 8108400293

Email

shrirang.s@krushakmitraagro.com

Annual Turnover

INR 6.43 Crore

Number of Beneficiaries

5,000+ Farmers

Sector

Marketing Solutions



Overview of the Start-Up

Krushak Mitra Agro is working on creating a responsible, responsive, organized, and environmentally and socially conscious agri value chain from soil to plate. The firm is empowering farmers with small holdings and farmer organizations to make agriculture viable for them while ensuring export quality products for the end consumers.

Business Model

The unique platform is set up as a partnership between Farmer Producer Companies (FPCs) while supporting NGO's and individual investors with immense corporate sector experience to work with farmers of smallholdings through their FPCs by creating sustainable, scalable linkages across the value chain covering inputs and market access. This leads to the consumers receiving high-quality value-added farm products including goat milk.

Kushak Mitra is working towards three main areas:

- To create a modern retail market (including e-commerce) that can be made accessible for farmers that aids in obtaining fair prices for their produce.
- Capacity building of farmers to make them future-ready for residue-free cultivation of fruits and vegetables
- Development of value-added products from the existing product to maximize the income.

Technology Description

The organization is carrying out an extensive GIS-based survey to understand the cropping pattern of the Sinnar block and has geo-tagged more than 500 acres of area to move towards future-ready traceability solutions for the end customers. The structure is envisaged to overcome the critical gap in the financial and intellectual capital of the FPO sector to reach the expected scale of operation.

Impact Generated

The company is currently working with farmers of more than 100 villages and has established a bridge between 35 FPCs and more than 15,000 members. It has activated a robust market linkage with more than 45 institutional clients in the space of modern retail, e-commerce, and food processors such as Reliance Retail, Big Basket, etc.

In its first 2 years of being operational, it helped 8 FPCs in generating a turnover of more than Rs 35 million with an equity contribution of only Rs 3 lakh. Additionally, it has purchased produce worth more than Rs 25 million directly from the farmers in various parts of Nashik district at farm gate.

During the torrid times of Covid-19, it has helped farmers sell more than 500 tons of vegetables and generate revenue of more than Rs 5 million.





KSHITIZ GROUP

Name of the SHG

Kshitiz Women Self Help Group (SHG)

Founder Name

Mrs. Pooja Sharma

Establishment Date

01/09/2013

Address

**Chandu Village, Budhera Post,
Gurgaon - 123505, Haryana.**

Contact Number

9992029845

Email

poojavashista16@gmail.com

Annual Turnover

NA

Number of Beneficiaries

150 Village Women

Sector

Food Processing



Overview of the SHG

Kshitiz Women Self Help Group is a group effort towards processing soybeans and other cereals into ready-to-eat food items such as millet khichdi, millet ladoo, roasted wheat grains, roasted sorghum, papad, roasted soy beans, roasted bengal grams, etc. The SHG also helps women acquire training in stitching, farming and other activities, making them financially independent.

Business Model

Enthusiastic Smt. Pooja Sharma took the initial training to learn food processing from Krishi Vigyan Kendra, Gurugram under the ARYA project. Further, a NGO by the name of “Access Development” took the initiative to strengthen the entrepreneurial capacity of the SHG members by giving them hands-on training in bakery and expanding the range of products prepared by them. One chef was appointed by a NGO to give them hands-on training in preparing bread, pizza and a variety of healthy and nutritious cookies.

Later, the group started a company named ZingnZestin, whose biscuits are used by top hospitality chains and stores like Annamaya Food Court in Aerocity, Delhi, 24X7, Reliance and Le Marche stores in Delhi and NCR areas. The improved marketing strategy of the company has led to a multifold increase in the volume of sales.

Technology Description

Currently, the SHG has 7 units of manufacturing machines to dry, clean, roast and process coarse millets like sorghum, pearl-millet, finger-millet, and oats into ready to eat nutritious food items.

Impact Generated

Smt. Pooja Sharma is helping teach women of her village how to use their spare land for farming crops like pulses and cereals, process them in the comfort of their homes, and sell the final products in the market. The initiative has helped women earn and contribute to their family income. The earning of the SHG has increased the lending capacity of the group to its members and thus enhanced the micro-credit system among the community.

Lately, the State Government supported Smt.Pooja to put her stall in SARAS mela (Gurgaon), Pragati Maidan (Delhi), Surajkund Mela (Faridabad), etc., helping her sell and publicize the products. Pooja Sharma, who started with a single SHG, has now formed nine SHGs with 150 village women, where they can avail financial assistance.

The SHG uses healthy food items like flax seed, ajwain, desi khand instead of chemically treated sugar while making cookies. Their cookies are much healthier and nutritious in comparison to the maida cookies available in the market.





Organic Mandya

Name of the Start-Up

Mandya Organic Foods Pvt. Ltd.

Founder Name

Mr. Madhuchandan S.C.

Establishment Date

17/02/2016

Address

No. 1565, Ground Floor, Ganesha Temple Road, 1st Cross, Vidyanagara, Mandya - 571401, Karnataka.

Contact Number

9606001575

Email

pranav@origin.club

Annual Turnover

INR 15 Crore

Number of Beneficiaries

12000 Farmers

Sector

Organic Farming



Overview of the Start-Up

Organic Mandya holds a free organic (chemical-free) farming training session every Monday in the region of Mandya, Karnataka, where farmers are taught a mix of various natural farming techniques. The firm procures the produce directly from these farmers and sells it through its chain of supermarkets in Bangalore.

Business Model

The idea for Organic Mandya was conceived to ensure the farmers of Mandya had a platform to sell their organically grown produce directly to the consumer. Over the years, Organic Mandya has built three verticals of business:

- Retail: Organic Mandya has 300+ SKU's under the essentials and retail category-most of which are being sourced directly from farmers and FPO from in and around Mandya. These SKU's are being sold through 7 retail stores strategically located across Bangalore.
- To cater to their mission of making organic products affordable and accessible to all, they also have a subscription based e-commerce cost model platform called Origin.Club. At Origin.Club, consumers can pay a small subscription fee and buy organic products without having to pay for overheads or middlemen.
- A significant part of business for Organic Mandya comes from A2 desi milk and its by-products. Through a mobile application, Organic Mandya caters to over 1000 customers who purchase milk and its subsidiary products on a daily basis.

Technology Description

The company sells products via its website www.origin.club, and iOS and android application.

Impact Generated

- Mandya has created 320 organic farmers' self-help groups in about 300 villages, as well as 270 women kitchen garden groups, 60 youth kabaddi groups, and a cooperative society with about 550 members.
- In total, 12,000 farmer families are under Organic Mandya's umbrella.
- Mandya helps provide sustainable livelihoods to farmers, and offers 100% honest, organic, and chemical free food to people.





MeraKisan

Name of the Start-Up

MeraKisan Pvt. Ltd.

Founder Name

Mr. Prashanth Patil

Establishment Date

01/07/2016

Address

Sr. No. 13, Besides Relicon Alpine Ridge, Near PanCard Club Road Baner, Pune - 411045, Maharashtra.

Contact Number

9154347218

Email

Prashanth@merakisan.com

Annual Turnover

INR 11.5 Crore

Number of Beneficiaries

12000+ Farmers

Sector

Marketing Solutions



Overview of the Start-Up

MeraKisan Pvt. Ltd. is engaged in sourcing, processing and distribution of organic food products sourced directly from the certified organic farmers across different parts of India. MeraKisan marketing has provided a link between urban consumers and rural food producers in their progress. Hence, it is India's first farm-to-fork portal that caters to all professionals as well as those at home interested to buy fresh certified organic products directly from farmers.

Business Model

The firm is involved in the organic agri segment, with a focus on genuine organic products. Current product portfolio includes non-perishable products like pulses, cereals, sweeteners, dry fruits and millets in bulk and retail. The firm has a B2B2C, and B2C model of supplying organic products, and exports as well. It also contributes to the rural economy by providing alternative marketing channels. MeraKisan helps producers deliver quality agri food products directly to the consumer through a variety of marketing techniques.

MeraKisan, unlike other online grocery shopping portals, aims at supporting farmers to sell their products at high profit margins by removing the middleman. The firm ensures 100% quality with high class operations to fulfill all the needs of the consumer.

Technology Description

The organicpanit.com is an online digital platform that caters to consumers in India who value fresh food and goods sourced from local farmers. The portal has been developed keeping in mind the needs and requirements of consumers in search of quality farmers and also to create visibility of those farmers who are producing quality agro products. Hence, it's a platform which connects all organic stakeholders to search, source, trace and transact organic products.

Impact Generated

- MeraKisan owns 5 organic certified FP/ICS in India, with a network of over 2,000 farmers.
- MeraKisan owns 11 ICS in Madhya Pradesh with 5000+ farmers; Maharashtra 320+ farmers.
- MeraKisan practices organic sourcing from 7000+ farmers.





MILLETBANK[®]

Name of the Start-Up

Millet Bank (Minkan Agro Industries Pvt. Ltd.)

Founder Name

Ms. Vishala Reddy Vuyyala

Establishment Date

07/04/2021

Address

**Villa No: 6, S4 Najir, Janardhan
Hills, Gachibowli, Hyderabad -
500032, Telangana.**

Contact Number

8142002009

Email

vishala@minkan.in

Annual Turnover

INR 2.5 Crore

Number of Beneficiaries

>500

Sector

Post Harvest and Food Processing



Overview of the Start-Up

Millet bank is a social enterprise working on building a fair, inclusive and integrated value chain in the space of millets.

Business Model

Inspired by the giant size traditional storage systems in ancient times that represented food security, crop diversity and dietary diversity, Millet Bank was founded by a team of professionals with farming community background to revive the nutritional legacy and culture. Millet Bank is working with millet farmers and micro processing units in formulating, branding and marketing of millet based value added products. Millet Bank portfolio of products include both ready to eat (RTE) and ready to cook (RTC) building an integrated and inclusive value chain for millets. Millet bank caters to both B2B and B2C segments.

Technology Description

Millet Bank is working towards integration of technology in all levels of its operations from procurement to distribution. Millet Bank is in the process of building an integrated value chain & e-commerce platform using technologies like block chain tracking the source and process of making the respective product and its authenticity.

Impact Generated

Millet Bank is amalgamating multiple market linkages to benefit farmers, micro food processing units and rural crafts people. In less than 18 months of its inception, Millet Bank has set up a Farmer's Field Centre & Museum to encourage farmers, India's first experiential store for Millets and a Millet Collab Centre in 6500 sq. ft. Millet Bank has provided business opportunities to 500 plus farmers, micro entrepreneurs and rural artisans. Millet Bank is actively driving consumer awareness and has engaged more than 2 lakh people by showcasing millets and their benefits at National and International platforms directly and indirectly.





Name of the Start-Up

Natural Products (Rythu Nestham Foundation)

Founders Name

**Mr. Yadlapalli Venkateswara Rao
(Padma Shri)**

Establishment Date

08/02/2018

Address

**D.No. 8-198, Near Pulladigunta
Village, Kornepadu Post,
Vatticherukuru Mandal, Guntur
Dist- 522017, Andhra Pradesh.**

Contact Number

9490559999

Email

yadlapallivenkat771@gmail.com

Annual Turnover

INR 2 Crore

Number of Beneficiaries

**Rythu Nestham Foundation-
1,80,000+ farmers, Rythu Nestham
Application-80,000 farmers, Rythu
Nestham Youtube channel has
2000+ videos with views from
12 crore+ farmers and subscription
of 8,10,000 farmers.**

Sector

**Supply of Organic Produce &
Training and Capacity Building**



Overview of the Start-Up

Natural Care provides a good price for the organic, chemical free and healthy agricultural produce grown by the farmers. The founder, Sh. Rao, has also started Rythu Nestham Foundation (Farmers Training Centres) to empower the farming community through capacity building and training programmes.

Business Model

- Sh. Rao has been growing cotton, chillies, fodder crops, vegetables & millet crops in 15 acres since 7 years using natural farming techniques. With the intention of providing a good price for the natural, chemical free and healthy agricultural produce, Sh. Rao has set up 3 sales outlets under the name of 'Natural Products' in Andhra Pradesh and Telangana.
- Rythu Nestham Foundation has been empowering the farming community through capacity building programmes since 2016. It has organized cancer-screening health camps for farmers' families, tree plantations, modernization of graveyards, organic mela programs, awareness programs on millets, training classes, promotion of terrace gardening and kitchen gardening, skill development programs, community/kalajatha programs on organic farming, and Swachh Bharat programmes in various villages of Andhra Pradesh and Telangana.
- Rythu Nestham Goshala has 35 cows and maintains indigenous breeds like Ongole, Gir, Punganur, Concrez, etc.

Technology Description

Shri Rao has developed **Rythu Nestham Application** (Natural Farming App.) which has helped farmers update their knowledge on different crops and livestock rearing. The app. works on android platform. The app. is a unique platform for two way interaction with Scientists, Subject Matter Experts and Progressive farmers, and provides farmers timely information on latest agricultural practices, support in decision making, marketing of agricultural, fishery and livestock products, etc. Sh. Rao has also been reaching the farming community through digital media viz. Raitu Nestham Youtube channel, WhatsApp, Facebook, digital materials etc.

Impact Generated

Sh. Rao has committed himself to improve the production and productivity of crops through organic/natural farming while enhancing farmers' income. The foundation has trained 1,80,000+ farmers through well-structured 300 training programmes on value addition to agricultural products by using various types of machinery for employment of youth and women. It has helped develop skills in beekeeping, mushroom cultivation, tomato sauce making, chili powder making, rice flour, millets processing, flour making with millets, biscuit making, cold-pressed oils extracted by using traditional method katterganuga, vermicomposting, and how to use small machinery in agriculture in 500+ villages of Andhra Pradesh and Telangana. Sh. Rao was conferred the Padma Shri award in 2019 for his contributions towards organic farming.



ninjacart

Name of the Start-Up

Ninjacart (63Ideas Infolabs Pvt. Ltd.)

Founder Name

Mr. Thirukumaran Nagarajan

Establishment Date

02/07/2015

Address

**No. 78/9 9th floor,
WeWork Vaishnavi Signature,
Outer Ring Road, Bellandur Village,
Varthur Hobli, Bengaluru - 560103,
Karnataka.**

Contact Number

+91 9591941122

Email

senthilkr@ninjacart.com

Annual Turnover

INR 748 Crore

Number of Beneficiaries

**1 Lakh Farmers Across
150 Villages**

Sector

Supply Chain Management



Overview of the Start-Up

Ninjacart leverages technology to agri-players, including farmers, resellers, retailers, consumers, and supply chain participants, so that they can buy and sell fresh produce transparently, without facing structural problems such as information asymmetry, payment hassles, distribution inefficiency, etc.

Business Model

Ninjacart, a B2B agri- marketplace platform, transports tonnes of fresh produce in 50 cities and around 200 villages. Ninjacart sources the produce directly from the farmlands and transports it to retail outlets and small businesses within 12 hours, ensuring a longer shelf life. The infrastructure is closely monitored and self-contained, with efficiency and food safety at its core.

Technology Description

The capabilities of AI algorithms have been applied in several aspects of the supply chain, including predictive demand forecasting and planning, pricing decisions, and logistics route optimization. The technology stack of Ninjacart can be identified as follows:

- It ensures that no paper is used in the supply chain and manages day-to-day business activities through a single unified software.
- Vehicle Route Planning: The algorithm registers retail customer order details from the previous day and utilizes information such as customer location, tonnage, crate count, and delivery time window to determine the optimal delivery route.
- RFID Scanning: Ninjacart uses RFID chips on crates to bring transparency to the supply chain.
- Facial Recognition: The data generated is used to track the productivity of employees from start to finish and at various points in the supply chain.

Impact Generated

Ninjacart has impacted the lives of farmers and retailers by providing them with accurate pre-harvest price information and demand trends. It has enabled better utilization of time, which they would have otherwise spent in dealing with several middlemen. Apps built for farmers help them understand the demand and supply gap, reduce waste, and allow them to stay on the field rather than visiting sabzi mandis in the morning.

Retailers are getting hygienic delivery of fresh and good-quality produce at their doorstep. Retailers can purchase a wide range of quality graded vegetables and fruits for their businesses at the best deals, allowing them to boost their profit margin. At every step, Ninjacart has maximized value for all stakeholders and farmers, leading to 20% more revenue through fair pricing and one-stop-sale for all produce.





Name of the Start-Up

**Nurture Agtech Pvt.
Ltd. (nurture.farm)**

Founder Name

Mr. Dhruv Sawhney

Establishment Date

21/01/2020

Address

**Sakti Statesman, 10th Floor
Green Glen Layout, Bellandur,
Bengaluru-560103, Karnataka.**

Contact Number

+91-9840775846

Email

dhruv@nurture.farm

Annual Turnover

NA

Number of Beneficiaries

NA

Sector

Precision Agriculture



Overview of the Start-Up

nurture.farm is an open, digital platform for agriculture that offers integrated solutions - farm mechanization services & advisory, agri-input e-commerce marketplace, financial solutions and market linkages - throughout the crop lifecycle to enhance farmer resilience and secure sustainable outcomes for the entire ecosystem.

Business Model

nurture.farm works on various business models depending on the stakeholder it is catering to-farmers, Govt. organizations, enterprises, developmental agencies, etc.

- **Mechanisation as a Service:** The firm charges a service fee to the farmers for services that range from spraying to renting mechanized equipment to soil testing, and advisory.
- **E-commerce Marketplace:** The firm charges commission from the Sellers/Manufacturers registered with it on its retail platform on successful completion of a transaction by a retailer.
- **Market Linkage Marketplace:** The firm receives a flat premium from its enterprise client on every tonne of sustainable produce cultivated by the firm for the client.
- **Sustainability**

Sustainability: The firm receives revenue through sale of carbon credits for promoting the use of regenerative practices and providing sustainable services as a free service to farmers.

The firm has a gross merchandise value of Rs. 1250 Crore and earned an annual revenue of Rs. 120 Crore in FY22.

Technology Description

The firm has successfully nurtured an integrated digital-first ag-ecosystem built on shared economy models, an active rural-gig economy workforce, to deliver accessible technology for all.

- **Farm Mechanisation:** The firm has a 5000+ fleet of farm machinery like Tractors, Boom Sprayers, etc. that farmers can choose to rent on its platform.
- **GIS:** The firm leverages GIS to offer weather advisory, monitor farms & crop health.
- **Remote Sensing & IoT:** Drones, sensors and IoT devices are used to geo-tag plots, survey farms, deliver services, monitor soil and crop health.
- **Machine Learning:** Machine learning is used to predict pest & disease attacks, estimate crop yields, harvest dates, etc.
- **Farm Digitisation:** Geo-tagging is used to map out farms, and apps to deliver farming services, advisory, agri-input products, & insurance solutions to the farmers.

Impact Generated

The firm seeks to drive long-term sustainable impact on the lives of farmers & agriculture sector by making it viable, profitable, self-sufficient, and resilient. The firm has:

- Successfully onboarded 2.4 million farmers on its platform
- 1,00,000 retailers working with it
- Serviced 16 states & 10,000+ pin codes
- Protected 2,00,000 farmers under its Kavach Weather Program.
- Sold 10,000+ tonnes of produce via market linkages
- Made 1 million acres of farmland sustainable
- Mitigated 1 million tonnes of CO₂ emissions
- Forward sold 20,000 carbon credits in India
- 10,000+ rural-gig workforce working with it to educate & train farmers.





Name of the Cooperative
**Organic Farmers
Market**

Founder Name
Mr. Gopi Devarajan

Establishment Date
21/02/2014

Address
**No. 1, Ground floor,
Sivasundar Avenue 2nd Street,
Thiruvanmiyur - 600041, Chennai,
Tamil Nadu.**

Contact Number
9790900887

Email
ofm.chn@gmail.com

Annual Turnover
INR 3.5 Crore

Number of Beneficiaries
**400 (Farmers, Women Groups,
Urban Poor, etc.)**

Sector
Organic Farming



Overview of the Cooperative

Organic Farmers Market, of a cooperative movement, works with farmers, and helps them grow their crops organically.

Business Model

Organic Farmers Market comprises a dedicated team of youngsters running small organic outlets across Chennai, bringing authentic organic produce from various small and marginal organic farmers across India. This cooperative helps bring to our tables trustworthy, clean and healthy organic products that can be traced back to respective farms/farmers. This network of small outlets across Chennai ensures fair price to farmers and consumers, traceability, transparency, trust and consistency.

The cooperative has taken several new initiatives to provide customers groceries at a very attractive price. Eg: Safe Food Sundays, where safe food is delivered directly to customers where there is no organic store. There is a unique “fixed price” for the vegetables through out the year, thus saving the farmers and customers from market vagaries. The cooperative has been running a plastic free shop as well for many years now.

Technology Description

The initiative is a cooperative movement, and no specific technology is used.

Impact Generated

OFM’s network consists of over 300 farmers. The farmers supply a wide variety of traditional rice, millets, pulses, oils, nuts and spices. Over 25 different farmers’/farmer groups supply fresh vegetables & fruits for the bi-weekly Organic Farmers Markets. OFM spreads awareness for traditional varieties, heirloom seeds, crop/biodiversity, eco-friendly practices, millets and traditional recipes through organic melas, food festivals, millet melas, seed festivals etc.



Name of the Start-Up

Praman.Ai (Powered by Intello Labs)

Founder Name

Mr. Milan Sharma

Establishment Date

03/06/2016

Address

**C-801, Courtyard, Nirvana Country,
Sector 50, Gurugram - 122018,
Haryana.**

Contact Number

+91 9910122458

Email

contact@praman.ai

Annual Turnover

NA

Number of Beneficiaries

**50,000+ Growers and Farmers,
120+ FPCs/FPOs/Co-operatives,
6000+ Buyers and 700+
Partnerships**

Sector

Marketing Solutions

praman Whatsapp support : +91-8882929300

PRAMAN IS NOW MULTILINGUAL



Call Now : +91-7795664557

praman Whatsapp support +91-8882929300

How is PRAMAN working with farmers?



App installation

Registration as seller

Lot Creation

Lot is now visible to buyers across India

Call Now : +91-7795664557



Overview of the Start-Up

Praman.Ai facilitates spot trading, e-auctioning and reverse auctioning for horticulture commodities such as onion, cardamom, apples, etc.

Business Model

Praman is a revolutionary exchange platform that makes horticulture trade easy, simple, and trustworthy. It's been built on three pillars, viz.:

- **Trade discovery:** Praman.Ai is a digital platform that enables fair price discovery and strong market linkage by driving geographic expansion and market outreach.
- **Quality assurance:** Proprietary Intello Labs' technology enables digital and spot quality assessments on trade accepted parameters that are instant and accurate at every stage of its supply chain.
- **Trade settlements:** They have integrated a full-stack array of services including logistics, warehousing, payments and credit facilitation for its users to seamlessly execute trade contracts.

Technology Description

Intello Lab's Quality Assaying technology is patented and is the world's most advanced digital quality solution. Firm's core IP visually assays the quality of fruits, vegetables and spices using AI, computer vision and machine learning for grading and sorting based on size, colour, defects, etc. at every stage of the value chain. Praman.Ai facilitates trade discovery & settlement in horticulture commodities. The exchange uniquely underwrites the quality risk and guarantees settlements of the trade.

Impact Generated

- Praman.Ai has helped digitalize the supply-chain framework. The firm has made the value chain more transparent and traceable. It has standardized quality, enhanced price discoverability, established market linkages and eliminated information asymmetry.
- Praman has become a trusted exchange for 50,000+ farmers and 120+ FPC/FPO/cooperatives across 85+ districts along with 700+ partnerships that include support engines like NITI Aayog, NAFED, Spice Board of India, AP MARKFED, J&K Horticulture Board, etc. It is helping save over \$250 billion of wastage of perishable horticultural produce.





Name of the Start-Up

Raheja Solar Food Processing Pvt. Ltd.

Founder Name

Mr. Varun Raheja

Establishment Date

16/11/2019

Address

**129, Kharwal Mohalla, Musakhedi,
Indore - 452001, Madhya Pradesh.**

Contact Number

9039022866

Email

Varun.raheja15@gmail.com

Annual Turnover

INR 39 Lakh

Number of Beneficiaries

5000

Sector

Food Processing



Overview of the Start-Up

Raheja Solar Food Processing Pvt. Ltd. has been helping farmers protect their perishable produce and increase their income by using its scientific, low-cost, easy-to-use, and advanced Solar Dryers.

Business Model

Raheja is providing farmers the most affordable and do it yourself foldable solar dryer to create value added products from the produce which otherwise goes waste or sold at very low prices. Raheja Solar Dryer dehydrates the produce without losing their natural color, taste, fragrance and nutrient and gives them at least one year shelf life. The firm provides complete step-by-step guidance – from installment of the dryer, to processing of produce, to support in marketing of products through trusted B2B contacts. Direct beneficiaries of the firm include entrepreneurs, self-help groups, FPOs, small scale enterprises, etc.

Technology Description

Solar dryer is a system that uses solar energy to dry substances, especially food. The purpose of this dryer is to supply controlled and optimized heat to the product than that available naturally in direct sun to save the nutritional value. It protects fresh products from ultraviolet radiation, dust, dirt, insects and pollution. Solar dried products can be stored for more than 6 months, without using any additive or preservative.

Impact Generated

- Around 3 thousand small and marginal farmers are earning a good income using these solar dryers.
- One electric dryer consumes 4 units of electricity per day. Farmers saved approximately six thousand units of electricity per day and twenty two lakh units yearly with the zero-electricity solar dryer concept.
- Over 150 companies use dried products in various industries like baking, hotels, medical and health, etc.
- Around three hundred deprived women became self-reliant by using these solar dryers.





Seeding goodness

Name of the FPO

Sahyadri Farms

Founder Name

Mr. Vilas Shinde

Establishment Date

27/12/2010

Address

**1102/08, Behind Police Head
Quarter, Adgaon, Nashik - 422003,
Maharashtra.**

Contact Number

+91 7738873090

Email

info@sahyadrifarms.com

Annual Turnover

INR 530 Crore

Number of Beneficiaries

**7958+ Registered Farmers,
23960+ Acres of Land, 119+ Villages
Covered, 42+ Countries Served,
33036+ Customers Worldwide**

Sector

Value Chain Management

Sahyadri Farms | Building India's largest integrated platform for Fruits & Vegetables

- World Class Processing Facility** spread across 100 acres capable of doing primary processing of F&V, semi-processed Frozen & Isotopic products, processed products like Jam, Ketchup, Beverages & Rice and waste processing under single integrated zero discharge campus.
- Amongst the first to introduce **Geo-tagging** of farm produce in India and working to become first to introduce **Block Chain** which will enable price transparency to farmers & consumers in India's F&V value chain.
- Enabling **Small Farmers** to work on the principles of collective farming by providing them access to international training, Global G.A.P. certifications, scalable processing facility, domestic & international markets and technology for crop management to improve yield.
- Most successful model of **Inclusive Partnership** with farmers in India - participating farmers currently hold ~32% equity through Trust and Farmer Producer Company in the entire platform making them part of the entire value chain and wealth creation.
- Physical - Digital Retail Platform** to provide farm to fork experience to consumers with emphasis on safety, hygiene & transparency. Demand Aggregation from Sweet Havens, hotels & Grocery Store through an integrated tech enabled supply chain network.

15,000+ Farmers & 33 Associated FPOs	29,960+ Acres for Procurement
42+ Countries Served	20,000+ B2B Customers Worldwide
25+ Fruits & Vegetables Processed	14 Retail Experience Stores
India's Largest Tomato Processor	India's Largest Grape Exporter



Overview of the FPO

Sahyadri Farms is India's leading farmers cooperative in fruits & vegetables where 8000+ marginal farmers ensure safe fruits and vegetables to consumers. Their crop-specific integrated value chains are led by farmer collectives, and empowered by technology and efficient management.

Business Model

Sahyadri farms, in 2010, started as a farmer collective/Farmer Producer Company, and then with the passage of time, with efficient management, scale, and technology, began formation of crop-specific integrated value chains. Sahyadri farms already has more than 10 crop-specific collectives. Sahyadri farms helps farmers reach consumers directly via its e-commerce, retail stores and export facility.

Sahyadri's core business initially was of grape exports as majority of its farmer members were grape growing farmers. With initial focus & continual excellence in Quality & Supply Chain Management in Grape Business, the company was able to create its landmark in Global Grape Industry and provide a foolproof solution to its 1000 + Grape Growing Farmers with 5000 acres area, making their farming profitable as well as sustainable. In 2014, Sahyadri commenced work to replicate Grape Story in other crops. Presently, Sahyadri farms is working with 5500+ other than Grape Growing Farmers and covering 7000 acres.

Technology Description

- AgroTrust platform enables end-to-end food traceability and price transparency.
- Sensartics Pvt. Ltd. provides unique, cost effective and next generation technologically advanced sensor stations and their data products for precision agricultural practices. Experts from India, USA and Germany have developed unique sensors for monitoring weather events and soil/crop processes. Agronomic decisions taken based on sensor data results in a highly immune crop and healthy soil structure, therefore providing quality yield for years. Database on Amazon AWS cloud allows quick data access anytime and anywhere. Sensartics team dedicatedly serves to support every farmer for monitoring his crop and soil status towards sustainable and profitable farm management practices.
- Vesatogo for advanced material scheduling and notifying readiness of crop harvesting (farmer to inward supply chain); SAP as the Enterprise Resource Planning (ERP) system for inward to dispatch, exports, accounting processes, etc.
- Godaam is an early stage agritech startup working in the onion value chain & Smart Warehouse.

Impact Generated

Made farming a profitable and sustainable venture for the farmers while ensuring safe and healthy produce to consumers.





Name of the Start-Up

Saptkrishi Scientific Pvt. Ltd.

Founder Name

Mr. Nikky Kumar Jha

Establishment Date

20/03/2019

Address

**108D, SIIC Extension IIT Kanpur,
Kanpur - 208016, Uttar Pradesh.**

Contact Number

8826217394

Email

saptkrishi@gmail.com

Annual Turnover

NA

Number of Beneficiaries

**50 (WWF Foundation, IIT Kanpur
Mess and Canteens, Farmers,
Microentrepreneurs).**

Sector

Storage Solutions



Overview of the Start-Up

Saptrishi has developed a product “Sabzikothi/Preservator”, which is a low-cost, microclimate based self-adaptive storage and transportation solution for extending the shelf-life of horticultural produce anywhere between 7 to 30 days.

Business Model

The firm sells Preservators to Agri-Dealers, Fertilizer Distributors, Franchise & Traders Organizations in North East, Bihar, Uttar Pradesh, Jammu and Nepal. The cost is ₹12,500 for up-to 200 kg of storage.

Technology Description

- Preservator is a low-cost, technological solution that extends the shelf life of perishable horticultural produce through the construction of a high-humid and sterile isolated chamber incorporated with high end technology that suppresses respiration rate, inhibits ethylene biosynthesis as well as oxidizes ethylene into small molecules, delays browning as well as ripening, and regulates activity of antioxidant enzyme. The controlled microclimate created inside the airtight chamber enables the storage of fruits and vegetables for anywhere between 3 to 30 days.
- The complete setup operates on a 10-watt solar panel and requires 1 liter of water in a day, and no further maintenance is needed. It is one of its kind as it does not require any chemical and is a green solution.

Impact Generated

- Created employment for more than 10 people per day.
- Helped farmers get a 20-30% higher rate for his produce, and increased his income by more than 50%.
- While other cold storages consume 30-50 kWh/m³ energy per year, the Preservator consumes only 8.63 kWh/m³ to the power energy per year, thus reducing the energy consumption by more than 80%.
- GHG Mitigation: Preservator reduces CO₂ emissions from agricultural wastes by 95%. One smallest unit can avoid 1276.8 kg CO₂ emissions per year.





Name of the Start-Up

Star Agribazaar Technology Ltd.

Founder Name

Mr. Amith Aggarwal

Establishment Date

29/12/2016

Address

**601-604, A Wing, 6th Floor,
Bonanza building, Sahar Plaza
Complex, Near JB Nagar Metro
station, JB Nagar, Andheri East,
Mumbai - 400059, Maharashtra.**

Contact Number

9323893407

Email

info@agribazaar.com

Annual Turnover

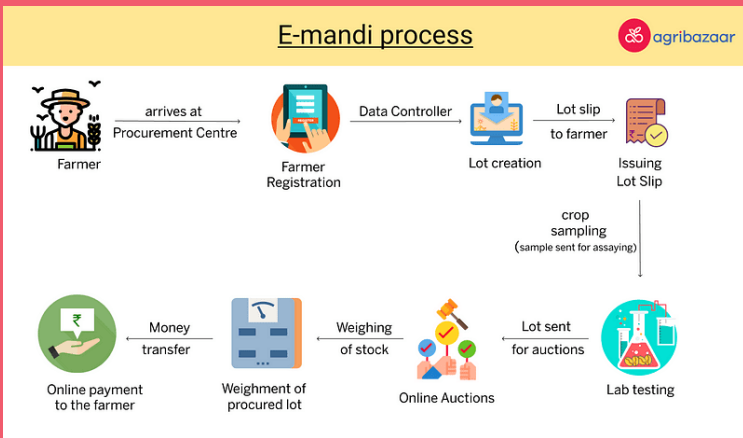
INR 9,000 Crore

Number of Beneficiaries

NA

Sector

Marketing Solutions



Overview of the Start-Up

Star Agribazaar is a one-stop agri-tech platform for precision agriculture, warehousing, agri-trading, financing and payments. It is India's largest private, and the only profitable online agri marketplace (e-mandi) with an intelligent and intuitive system that delivers future-ready solutions to the Indian rural sector.

Business Model

Once a farmer registers and uploads the details of produce on the platform, buyers including merchants, traders, and corporates can give orders for purchase. Once the deal is complete, Agribazaar tests the quality and provides logistical support at the farmers' doorstep and delivers it to the buyers' godown or warehouse. Farmers get payments online in their bank account. Apart from its private business, Agribazaar has tie-ups with Government organizations like NAFED and many State Governments like Rajasthan, Telangana, Madhya Pradesh, etc. to help them conduct auctions and purchase commodities from farmers at a fair price.

Technology Description

The company provides services such as IoT based farm assessment, crop assessment, intelligent goods and settlement services (warehousing, testing, logistics), input and output marketplace, and agri fin-tech services using data analytics (AI, MI GIS), remote sensing, mobile based application and secure payment gateway to farmers, traders, enterprises, Governments etc. The company's products include: AgriBhumi, Input Marketplace, Online Auction Engine, e.Mandi, AgriKnow (GAP), AgriPay, MarketPlace, and Kisan Credit Card.

Impact Generated

With over 1 lakh users, 33,000 listed auctions and over INR 14000 crore GMV on Agribazaar platform, Agribazaar is disrupting the conventional agri-trading ecosystem.

- Current year GTV of INR 8,000+ crore as on December 2021; cumulative GTV of over INR 35,000 crore since inception
- 75 percent increase in private B2B trade transactions.

e-Mandi Operations:

- Private e-mandi operations commenced in Madhya Pradesh with seven procurement centers.
- 3,300 MT of commodities procured.





Name of the Start-Up

TRITHI Robotics Pvt. Ltd.

Founder Name

Mr. Vasant Bhat

Establishment Date

06/10/2017

Address

**869, 11th A Cross, 23rd Main,
JP Nagar 2nd Phase,
Bengaluru - 560078, Karnataka.**

Contact Number

+91 9483 883 111

Email

3thi robo@gmail.com

Annual Turnover

INR 10 Lakh

Number of Beneficiaries

**100+ individual farmers for 30
types of field crops across 5 states**

Sector

Precision Agriculture (Drone)



Overview of the Start-Up

TRITHI provides precision agriculture drone services to farmers to spray and safeguard their crop, gain better yields, and analyze their field soil on a timely basis to help them transform their farming to a future ready agriculture. The firm also helps farmers to store their crop data to gain crop insurance in case of hazard & floods.

Business Model

TRITHI provides drone services within an affordable range of INR 500 to INR 750 per acre to farmers, cooperatives, farming firms and corporates. The drones assess the crop condition and spray required medicines for faster and necessary crop care (with accurate concentration of chemicals prescribed) with 80 percent less water and 60 percent less chemical compared to traditional methods. Farmers pay for each acre of services provided.

TRITHI also markets custom built multi-spectral sensor drones to agricultural universities, educational institutes and government agencies. Rural youth is also being trained and partnered for the services offered at farm-gate.

Technology Description

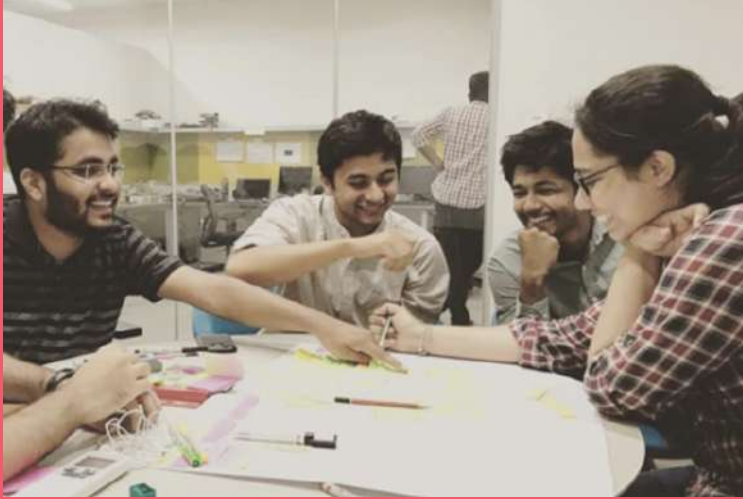
TRITHI builds agriculture drones as per QCI-DGCA RPAS certification process by sourcing parts from 12 vendors across 5 countries and conducts crop trials through fuel-based hybrid drones to mitigate battery charging requirements in the field to cover more acres per day.

- 3D, GIS, Contours, DEM & Surveys: TRITHI provides land parcel surveys using drones to achieve greater accuracy and multiple data output formats, which helps prepare land in best way possible.
- Crop Health Monitoring: Multi-spectral 5 band sensor drone can provide 30+ types of crop distress conditions which can help reduce crop loss.
- Precise Crop Spray by Drones: TRITHI provides on-demand crop care spray for affordable service cost at farm gate.
- Ultra-Low Volume Crop Spray Research & Analysis: Teams are provided with all the required equipment to carry out research and development, result trials, and test efficacy.

Impact Generated

The firm currently has 8 teams and covers more than 6000 acres in a season covering 5 states. It has been empowering unemployed rural educated youth to take up service partnerships. Reaching more than 100 all-size farmer communities, the firm has covered more than 30 types of field crops, from grains to grapes, and reduced chemical water usage, from 800+ liter per acre per spray to 8-10 liter per acre per spray. Due to the reduced usage of chemicals, the farming process has become eco-friendly and everybody can now consume healthier food. Since less water is used in farming through this technology, farming can now also be done in areas with less water.





Name of the Start-Up

**Vesatogo Innovations
Pvt. Ltd.**

Founder Name

Mr. Akshay Dixit

Establishment Date

12/09/2019

Address

**Digital Impact Square, 4th Floor,
Viscon IT Park, Nashik - 422001,
Maharashtra.**

Contact Number

+91-8552072365

Email

akshay.dixit@vesatogo.com

Annual Turnover

INR 1.5 Crore

Number of Beneficiaries

**15,000+ associated farmers of
Farmer Producer Organizations
(FPOs) and other agribusinesses**

Sector

Logistics Solutions



Overview of the Start-Up

Vesatogo provides efficient and economical logistics options to the marginal farmers of the country, and also ensures optimal utility of resources.

Business Model

Vesatogo Innovations works in close association with the Farmer Producer Organizations (FPOs), agri-businesses, and small-holder farmers for optimizing their procurement process and farm operations. The firm offers services on a subscription basis (SaaS).

- Per use structure for FPOs and agri-businesses
- Fixed one-time deployment/setup cost and then recurring subscription cost
- The billing cycles are adjusted according to the seasonality of the FPOs

Technology Description

Gramik:

- Mobile-based market linkage and aggregated logistics platform
- Market trends (rates, demand, etc.) visibility to farmers to enable smart and informed decisions ensuring higher profitability
- Aggregated logistics services (pay-per-use) ensuring reduced post-harvest expenditure

FPO (Agri-business) Management System:

- Highly customized SaaS based ERP software solution for FPOs and agri-businesses in the Indian context
- Integrated hyperlocal e-commerce platform to enable better reach end customers (B2B/B2C)

Impact Generated

- Increase in the market realization for the farmer by an average of 7-12%
- 3500+ farmers have together delivered more than 2.5L metric tonnes of produce to connected marketplaces
- Monetary value of transactions: INR 50 crores
- FPO Management System
- Enabled digitization of farm data for 12,000+ farmers
- Enabled a seamless transaction of INR 650 crore+ (through multiple FPOs with which system is live)
- Average cumulative daily sales of INR 25L through connected FPOs and agri-businesses
- Enabled agrivalue chain to be more optimized, streamlined, traceable and transparent





Name of the Start-Up

Waycool Foods and Products Pvt. Ltd.

Founder Name

Mr. Sanjay Dasari

Establishment Date

08/07/2015

Address

New 6 and 8, Bhagirathi Ammal Street, T Nagar, Chennai - 600017, Tamil Nadu.

Contact Number

9867779919

Email

jayesh.shinde@waycool.in

Annual Turnover

NA

Number of Beneficiaries

NA

Sector

Supply Chain Management



Overview of the Start-Up

WayCool Foods leverages innovative technology to scale and operate a complex supply chain from soil to sale.

Business Model

WayCool works with 85000+ farmers through its farmer engagement program-Outgrow. The firm has made a big mark in the B2B food supply chain.

WayCool operates a full stack, broadline product range across multiple channels and categories such as fresh produce, staples, and dairy, serving over 1,00,000 clients in the general trade, modern trade, and food services space. WayCool's consumer brand basket consists of Madhura, KitchenJi, L'exotique, and Freshey's, to name a few.

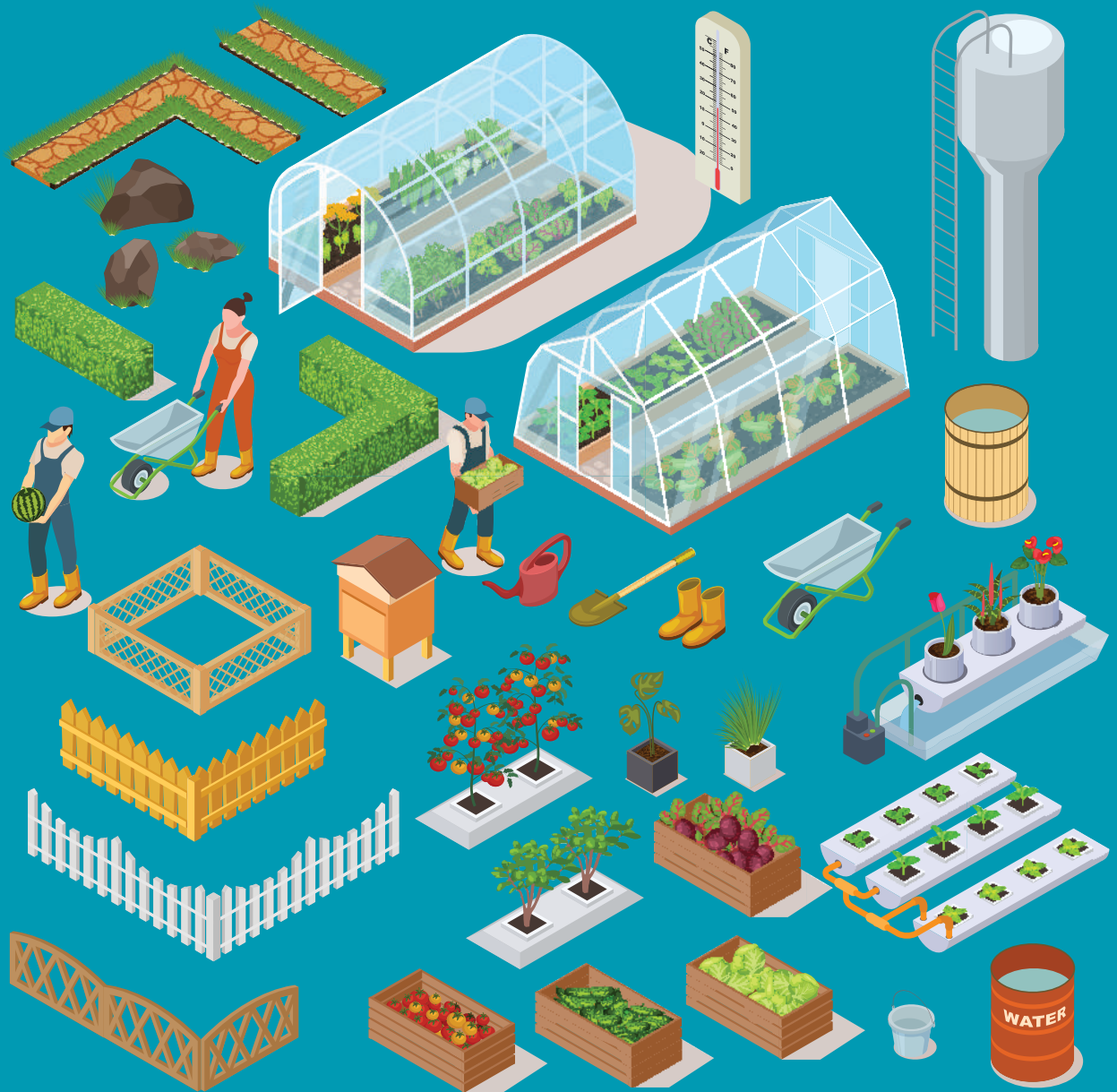
Technology Description

- Over the last 6 years, WayCool has deployed an integrated tech stack to offer holistic advisory & end to end solutions in the Agri/Food supply chain.
- The firm's farmer engagement program - Outgrow helps farmers in soil health management and crop planning through AI/ML enabled demand and price forecasting models, smart irrigation through IoT enabled farm automation, advanced weather data, guiding farmers through engagements by its on-ground team of agronomists, to buying the output from farmers at deserved value.
- Outgrow APP (part of larger Outgrow Initiative) is a one stop APP for farmers that helps them with rapid soil testing, crop disease identification and remedies, crop planning, farm advisory, access to live mandi prices, as well as chat support from trained agronomists.
- The easy and intuitive app uses visual and audio representations for easy consumption of data to the farmers in their local regional languages rather than text based solutions that farmers may find difficult to consume & implement.

Impact Generated

- WayCool's encouragement to farmers to adopt regenerative/natural farming practices with the use of latest technology tools has helped bring down input cost drastically, thereby increasing incomes of farmers by 30-40 percent.
- WayCool's next-gen automation and tech integration has helped bring down the food wastage that happens in the Agri-Supply chain to 5-8 percent vis-à-vis an average of 30-35 percent.
- The Outgrow program, along with impacting farmers financially and socially, has also simultaneously delivered enormous environmental impact by removing carbon from the atmosphere and putting it back in the soil.
- By shifting from conventional agriculture to regenerative agriculture, the practice has helped make farmland functions as a 'carbon sink' source, rather than acting as a source of carbon emissions.
- Waycool believes this could deliver a huge win in fight against climate change.





HORTICULTURE



Name of the Innovation

Bharat Ka Mini Israel

Founder Name

Mr Khema Ram Choudhary

Establishment Date

01/04/2012

Address

**Village - Guda Kumawatan,
Post - Bobas, Tehsil - Jobner,
District - Jaipur- 303338, Rajasthan.**

Contact Number

9828057599

Email

**khemaramchoudhary9828@gmail.
com**

Annual Turnover

INR 1.25 Crore

Number of Beneficiaries

500+ Farmers

Sector

**Protected cultivation of
cucumber/cherry/capsicum**



Overview of the Innovation

Sh. Khema Ram Choudhary practices protected cultivation of cucumber using advanced technologies like net house, walking tunnel, low tunnel, drip irrigation, mulching, etc. He has brought his village the title of “Bharat Ka Mini Israel”.

Business Model

Sh. Khema Ram Choudhary, in year 2012, visited Israel under Department of Agriculture, Govt. of Rajasthan to attend a delegation of 14 progressive farmers on hi-tech horticulture/protected cultivation. In year 2012, he established one poly-house under 4000 sq.mt. area in his village to practice protected cultivation of cucumber. He gradually extended poly-house to net house, walking tunnel, low tunnel, drip irrigation, mulching, etc. to enhance production. By year 2022, he has established 8 poly-houses under 4000 sq. mt. area.

Technology Description

Sh. Khema Ram Choudhary has established farm pond for rain water harvesting. He uses drip irrigation and mulching system for efficient water use, soil solarization for soil treatment against soil born pathogen, nematode, insect net, different colour of shed net, high yielding varieties, etc. He has adopted crop diversification and cultivated marigold, broccoli, sweet corn, strawberry, capsicum, etc. other than cucumber. He has adopted hydroponic (tower system) for growing lettuce and strawberry.

Impact Generated

Sh. Khema Ram Choudhary is the first farmer to introduce protected cultivation technique in Jaipur district. His operations have extended from one poly-house to eight poly-houses over the period over the last decade. More than 500 farmers have started protected cultivation in poly-houses. Due to his commendable work, his village Guda Kumawatan is now popularly known as “**Bharat Ka Mini Israel**”.





Name of the Start-Up

**Farm 2 Fam India
Pvt. Ltd.**

Founder Name

Mrs. Keya Vimal Salot

Establishment Date

10/01/2020

Address

**35, Chandivali Village, Off
Saki Vihar Road, Andheri,
Mumbai-400072, Maharashtra.**

Contact Number

9967546081

Email

keya@farm2fam.in

Annual Turnover

INR 1.17 Crore

Number of Beneficiaries

NA

Sector

Berry Cultivation



Overview of the Start-Up

Farm2Fam locally produces crops including exotic fruits such as blueberries, red raspberries, etc. which are currently imported into India. Being imported, they are expensive and have a long supply chain running into days and months. Farm2Fam's mission is to enable India to get healthy by eating fresher and healthy produce at a low cost.

Business Model

Farm2Fam locally grows blueberries and red raspberries, which are currently being imported into India. The firm imports the plants and has developed the growing technology suited to its area. It also provides critical inputs and technological support to the local farmers for growing berries. Once the produce is ready, the firm sells the produce to the following:

- End consumers for direct consumption
- Retailers for selling the fruits to the end-consumers
- Hotels and restaurants for making dishes for consumers
- Food processing companies to make berry based products such as ice-creams and chocolates

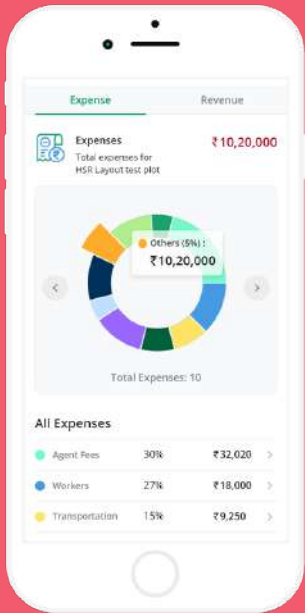
Technology Description

The firm is growing berries in India using different technologies used across multiple countries like Israel, USA, etc. The berries are grown in controlled environment using substrate as a media and fully automated irrigation and fertigation system. Sorting, grading, storage and packaging of berries is done following international standards which are modern and advanced.

Impact Generated

- End consumer gets fresher fruits with a higher shelf life and at upto 50% lesser cost.
- Farmer gets regular income from leasing of the land. His skill-set gets enhanced and he gains knowledge of growing exotic crops.





Anthracnose - Grape
High risk of Grape Anthracnose on Plot Thompson, Shashank Farm. Scout the plots and check if there is a Grape Anthracnose outbreak. If you haven't sprayed it in the last 7 days, spray Proplneb or COC or Copper Sulphate + Mancozeb with 100% coverage as a preventive measure at 10:10 AM.

Spider Mite - Grape
Low risk of Grape Spider Mites on Shashank Farm, Plot Thompson. Take Abamectin or Bifenazate preventive sprays with good coverage at 10:10 AM.



Name of the Start-Up

Fasal (Wolkus Technology Solutions Pvt. Ltd.)

Founder Name

Mr. Ananda Prakash Verma

Establishment Date

11/01/2018

Address

680, 1st Floor, 13th Cross Road, 27th Main Rd, 1st Sector, HSR Layout, Bengaluru - 560102, Karnataka.

Contact Number

9004936669

Email

krunal.dalwadi@wolkus.com

Annual Turnover

INR 7 Crore

Number of Beneficiaries

Currently, more than 50,000 acres of farmland is under Fasal's management

Sector

Precision Farming (AI-powered IoT-SaaS Platform)



Overview of the Start-Up

Fasal is a full-stack platform for horticulture anchored on an IoT-SaaS platform that provides farm-level, crop-specific and crop-stage-specific actionable intelligence to optimize cultivation costs, increase yield and the quality of the yield.

Business Model

Fasal sells the IoT-sensing devices at a one-time up-front cost of INR 30,000 to customers and then collects a monthly subscription fee of INR 750 for providing the specific actionable recommendations to farmers via mobile phones in vernacular languages through the Fasal App (iOS, Android, Tablet, and web).

Other revenue streams (on-going work)- Data marketplace for:

- Weather-based agri-insurance company
- Agri input company for just-in-time supply
- Traders and procurement companies
- Agri automation companies

Technology Description

Data driven smart farming: Fasal uses farm-level data to predict ideal growth conditions and resource requirements, including irrigation, sprays, fertigation and other preventive measures and notifies farmers to take informed decisions. Fasal monitors micro and macro climatic conditions, below the soil parameters, solar conditions, crop stage, crop growth characteristics, etc.

- Irrigation alert: Fasal continuously checks water availability in the soil to ensure that the irrigation requirement of the crop is precisely met at all times based on the crop, its stage, and soil characteristics.
- Weather forecast: Fasal provides a farm-specific micro-climatic forecast for the next 14 days to keep farmers well prepared for weather risks of the future.
- Disease and pest alerts: Fasal disease prediction and assessment systems forewarn farmers and agri institutions about the possibility of a crop disease, its severity, possibility of pest outbreak so that farmers can precisely time their preventive sprays.
- Record activities and finances: Fasal provides real-time insight into the daily progress of crops and activities, manages sales, expenses and cash flow to ensure the health of farmers' finances.

Features of technology used are as follows:

- Modular farm IoT, which can thrive in any farm conditions
- Artificial Intelligence used for streaming data on cloud for real-time irrigation alerts, disease and pest forewarning
- Big data analytics for farm and crop monitoring
- MQTTS-based highly secure and scalable IoT backend for processing of millions of data payloads
- Big data analytics using Apache Airflow for real-time processing of satellite imagery for crop health assessment

Impact Generated

- 9 billion litres of water saved from irrigation
- Upto 60% deduction in pesticide cost
- Upto 40% increase in yield





Name of the Start-Up

Fyllo (AgriHawk Technologies Pvt. Ltd.)

Founder Name

Mr. Sudhanshu Rai

Establishment Date

23/04/2019

Address

**36/5, Somasundarapalya,
Sector 2, HSR Layout,
Bangalore - 560102, Karnataka.**

Contact Number

+91-7895387267

Email

contact@fyllo.in

Annual Turnover

INR 2 Crore

Number of Beneficiaries

1000 Farmers

Sector

**Precision Farming
(Compliance Cloud)**



Overview of the Start-Up

Fyllo works towards mitigating uncertainties in growing horticultural crops. The firm provides farmers with crop-stage-specific and soil-specific insights that help them grow export quality produce at a significantly lesser cost. The firm also helps various corporate farming companies and exporters get the best quality produce from their farms.

Business Model

The business model includes selling IoT devices and software subscriptions to farmers. These devices are sold for INR 20,000 only. They have a monthly subscription model, which costs INR 400 to assist farmers. Based on real-time data obtained from IoT devices, soil, and machine learning, Fyllo helps farmers make decisions that help prevent diseases and pests, irrigation, fertigation, and weather predictions.

Technology Description

Fyllo has developed algorithms for 28 weather prediction models and models for 6 crops with 33 disease and pest predictions. They have also designed a low-cost IoT hardware for Indian farmers, which is wireless and works in open farm conditions. Through these devices, Fyllo has collected over 10 million data points from Indian farms. It is working towards the betterment of farm practices in areas that include:

- Precise irrigation based on crop needs
- Preventive alerts on disease and pest
- Fertilizer management for enhanced crop yield
- Live weather prediction
- Crop specific management

Impact Generated

- Helped over 1000 farmers grow the best quality produce.
- Saved 600 million litres of water till now.
- Increased productivity by 25%.
- Decreased the cost of cultivation by 30%.
- Increased the export quality by 81% across the farms.





Name of the FPO

**Growfarm Tech
Producer Company
Limited (Hi tech
Agriculture &
Consultation Centre)**

Founder Name

Mr. Ram Saran Verma (Padma Shri)

Establishment Date

09/10/2018

Address

**Village & Post-Daulatpur,
Barabanki-225414, Uttar Pradesh**

Contact Number

9839376028

Email

vermaagri@gmail.com

Annual Turnover

INR 4.6 Crore

Number of Beneficiaries

**More than 1.15 Lakh
Farmers (U.P, Bihar, M.P)**

Sector

**Tissue Culture (Banana),
Technical Advisory and Marketing**



Overview of the FPO

Growfarm Tech Producer Company Limited/Hi tech Agriculture & Consultation Centre provides free advisory on use of tissue culture technique, crop diversification, crop rotation, ways to generate employment from agriculture, ways to create a market in a village, use of green manure, adoption of natural farming, innovation in instruments, etc.

Business Model

Sh. Verma, who was a traditional farmer in the late 80s, now cultivates Banana, Tomato, Potato, Mentha, Urd, Watermelon, and Strawberry using tissue-culture technique, crop diversification, crop rotation, cow dung manure, and natural farming. These innovative techniques have helped increase his per hectare income. Sh. Verma is now able to earn an income of Rs.7.5 lakh/ha from banana, Rs. 05 lakh/ha from tomato, Rs.2 lakh/ha from potato, Rs.1 lakh/ha from mentha, Rs.9050/ha from wheat and Rs.1.20 lakh/ha from mustard.

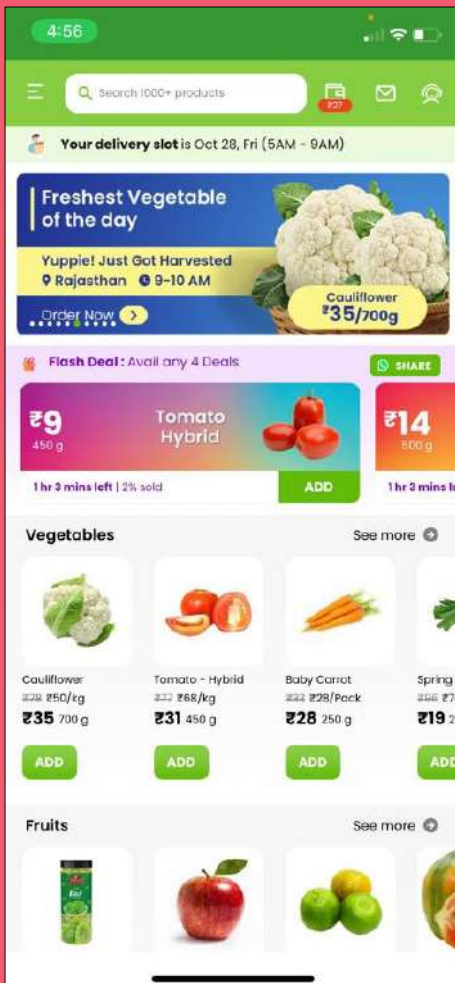
Technology Description

Sh. Verma digs the banana crop and cuts the stem in the field. He plants potatoes, wheat, urad, mentha, tomato, etc. on the same land. The banana stem provides potash and enhances output of the second crop planted.

Impact Generated

The innovative technique of tissue culture along with crop rotation has helped Sh. Verma get an output of 60 quintals/ha in wheat, 60% more output and 70% reduced fertilizer usage in potato production; the overall output has increased by 30% and fertilizer usage has reduced by 50%. Sh. Verma is cultivating 300 acres practicing cooperative based crop rotation. He has been able to reduce cost of cultivation by 50% by replacing use of fertilizer with cow dung and organic manure, provide employment to 30000 man-days in his village. He has shared his farming techniques with more than 20 lakh farmers free of cost. Around 1 lakh farmers are doing farming inspired by his farming model. Today, tissue culture technique is being practiced by 50k+ farmers in 1.5 lakh hectare area in UP. Small farmers of Barabanki are now able to get a market and employment in the village itself using Sh. Verma's advisory services.





Otipy

Always Fresh, Never Stored

Name of the Start-Up

Otipy Internet Pvt. Ltd.

Founder Name

Mr. Varun Khurana

Establishment Date

01/11/2020

Address

**Plot 8 & 9, MM Tower, Udyog Vihar,
Sector 18, Gurugram- 122002,
Haryana.**

Contact Number

8109183303

Email

ritu@crofarm.com

Annual Turnover

NA

Number of Beneficiaries

**>20,000 Farmers, > 5 Lakh
Customers, > 17000 Daily Orders**

Sector

Supply Chain Management



Overview of the Nursery

Otipy delivers fresh, safe & hygienic fruits and vegetables straight from the farm within 12 hours of harvesting. The demand driven, zero wastage and tech enabled supply chain helps enhance income of farmers, reduce wastage, and provide freshest produce at the lowest cost to the consumers.

Business Model

Otipy is operated by crofarm. Otipy focuses on B2C while Crofarm is B2B focused. Otipy delivers fresh fruits and vegetables to consumers straight from the farm within 12 hours of harvesting in the most hygienic and safest manner, and with minimal touch. Otipy is an industry leader in Delhi-NCR and moves 100+ tonnes of fresh produce daily, serving 17000+ daily orders. It has served more than 5 lakh consumers in NCR region.

Technology Description

- AI and tech-enabled fast and efficient supply chain helps reduce wastage in the farm-to-fork value chain
- Innovative low-cost cold chain solutions help deliver super-fresh and nutritious food without adding much cost to the produce
- Otipy's reseller model leverages technology to perform lowest cost mile deliveries

Impact Generated

Apart from reducing fresh produce wastage from 40% to 3%, Otipy's fast supply chain (12 hours) provides the following benefits to the stakeholders:

Farmers

- Better value for produce
- Timely electronic payments
- Market guidance

Businesses

- Access to fresh and better quality produce
- Fair and transparent pricing
- Convenience

Consumers

- Access to fresh, better quality and healthy produce
- Farm gate prices
- Traceability to source





Name of the Nursery

VNR Nursery

Founder Name

Dr. Narayanbhai Chawda

Establishment Date

30/01/2012

Address

Corporate Center, Canal Rd Crossing, Ring Road 1, Raipur - 492006, Chhattisgarh.

Contact Number

0771-4350032

Email

info@vnrnursery.in

Annual Turnover

INR 12.36 Crore

Number of Beneficiaries

Customers/Farmers: 10000 Approx, 50 lac labor days, 0.5 lac labors-70% Ladies & 30% Gents

Sector

Breeding and Research



Overview of the Nursery

VNR Nursery is a part of the VNR Group-led by the flagship company VNR Seeds, which is currently among the top 50 seed companies of the country. With research at its core, VNR Nursery's fruit breeding program has released its new guava fruit variety -VNR Bihi-India's biggest guava.

Business Model

VNR is a service-oriented organization having planting material in the following segments:

- VNR Research and Development-New Fruit Crop Varieties
- Other Fruit Crop Varieties (Fruit crop bank of 128+ varieties)

VNR has a buyer-seller exchange platform which helps:

- Growers sell their produce at rightful prices by contacting enrolled fruit vendors from major cities.
- Fruit vendors across the nation contact registered growers from given states for sourcing produce of desired grade and quality at the right price.

Technology Description

VNR Nursery has 3 technologically-advanced climate-controlled green-houses ad-measuring 2000 sq. meters. It has 15 acres of land dedicated for research, spread in various geographies to ensure that plants are tested in all possible parameters of environment and soil conditions.

VNR Nursery's production field has 80 acres of fully equipped land, which is spread across many locations in Chhattisgarh. The Horticulture division is entrusted with 50 acres of mother plants block for bud woods and 15 acres of land for rootstocks and grafted plants.

All the locations are equipped with the latest modern facilities of agriculture like advanced greenhouse, drip irrigation, tube wells, agriculture implements, generator backup for electricity and internet connectivity. VNR regularly facilitates training of their manpower from renowned international and national institutes and keeps updating their skill repository with latest technologies.

Impact Generated

- Transferring the best crop management practices through a team of experts, Growers are following these recommended practices to keep their orchards healthy, obtain maximum yield season-on-season, and earn handsome profits.
- VNR Bihi offers a longer shelf life, fewer seeds, attractive appearance, and good quality and nutrition. It is presently cultivated in 315 districts of 22 states with a plant population of > 4.5 million.
- VNR Nursery has introduced and promoted many technologies in fruit cultivation viz. Raised Bed Cultivation, Orientation of orchard, Drip irrigation & Fertigation, Training of plants from plantation day, Espalier system in canopy management, Organic & Plastic mulching, Bagging of guava & custard apple fruits, Mechanical grading of guava, Branding & Packaging of guava fruits.





Name of the Start-Up

Yuktix Technologies Pvt. Ltd.

Founder Name

Mr. Rajeev Jha

Establishment Date

10/10/2013

Address

**No. 1713, 2nd Floor, Sector - 3,
19th Main, HSR Layout,
Bangalore - 560102, Karnataka.**

Contact Number

9886124428

Email

rjha@yuktix.com

Annual Turnover

INR 50-60 Lakh

Number of Beneficiaries

**10000+ Marginal Farmers, 500
Plantation Growers, 50 B2B
Companies**

Sector

**Precision Farming
(Smart Sensing Solutions)**



Overview of the Start-Up

Yuktix creates technical solutions to improve the yield and productivity of Indian farms using IoT and AI technology. The company is currently working with fruit and vegetable growers in Karnataka through scientific inputs and timely interventions to help boost farm incomes.

Business Model

Yuktix rents out field IoT devices to farmers. This doesn't require any upfront investment. The company collects a subscription fee for providing a high-touch high-quality package of practices and access to crop experts via its app. The app can be used for field scouting and consultations as well. Businesses and foundations buy Yuktix software to provide the same benefits to their own growers.

Technology Description

Yuktix, with the usage of technologies like IoT Hardware platform, sensor-based data capturing, M2M solutions, remote monitoring, control and automation, environment sensing, smart agriculture, agTech, Analytics and IoT software, has created Yuktix GidaBits™ platform that provides the same benefits as a trained agronomist can provide at a site for a fraction of that cost. The platform also provides continuous monitoring of farm plots using the nearest device on the grid, in addition to the following benefits using data from IoT devices and farmer apps. Other tech features include:

- Water and soil management to provide right water stress
- Insect attack and disease warning system
- Dynamic PoP for spray, fertigation, and nutrition management
- Operational forecasts (weather and farm scouting)
- Access to crop experts

Impact Generated

Yuktix GidaBits has helped farmers adopt climate-smart and regenerative agriculture practices, which have resulted in:

- Production increase of at least 30% per hectare basis (supplementing financial gains)
- 30-50% water savings in semi-arid and drought-prone areas like Northern Karnataka
- 20% reduction in usage of pesticide
- Helped farmers adopt climate-smart and sustainable agriculture practices





DAIRY



Name of the Start-Up

Animall Technologies Pvt. Ltd.

Founder Name

Ms. Neetu Yadav

Establishment Date

17/12/2019

Address

**No 51, First Main, ST BED Layout,
Fourth Block Kormangala,
Bangalore - 560034, Karnataka.**

Contact Number

9818578878

Email

neetu@animall.in

Annual Turnover

INR 60 Crore

Number of Beneficiaries

1 Crore+ Farmers

Sector

Online Trading



Overview of the Start-Up

Animall Technologies Pvt. Ltd. is an online discovery platform for facilitating trading of animals (predominantly livestock). The firm facilitates consultations between users and animal health care professionals, and provides a forum to users to discuss issues around animals (predominantly cattle) and any other ancillary services in relation to livestock and other animals.

Business Model

Animall has 18 farms across the country where a variety of cattle breed is available at the cheapest rates. The firm buys in-demand cattle and sells them with a premium to the dairy farmers. It has 2 business lines:

- a) Fullstack model – Firm buys cattle themselves based on the demand in the market and then sells the cattle to dairy farmers.
- b) Discovery model – Firm connects buyers with the sellers where both the parties share their requirement. Animall has very granular insights about the real time supply and demand in the market. The discovery model works as a robust pricing, supply and demand engine for fullstack model.

Technology Description

Animall has built ML driven tools that help identify the supply and demand in any area with very high degree of granularity. Along with that, Animall has also developed tools that help authenticate cattle objectively on different parameters such as unique identification, breed, lactation, age, milk yield and price.

Impact Generated

1 crore+ dairy farmers have been able to sell 10 lakh+ cattle on Animall's app and website over the last two years. Animall is the most convenient and cheapest platform for cattle trade.





Name of the Start-Up

Country Delight

Founder Name

Mr. Nitin Kaushal

Establishment Date

01/01/2015

Address

**Unit No: 547-550, 5th Floor,
JMD Megapolis, Sohna Road,
Sector - 48, Gurugram - 122001,
Haryana.**

Contact Number

+91 965 057 8884

Email

info@countrydelight.in

Annual Turnover

NA

Number of Beneficiaries

1.5 Million Customers

Sector

Marketing Solutions



Overview of the Start-Up

Country Delight is a farm-fresh milk-delivering app. It offers unadulterated milk and by-products to consumers directly in major metro cities in India. The placement of orders and servicing happens through a mobile application, which makes it easy to manage one's milk requirements.

Business Model

Country Delight engages directly with the farmers to procure fresh cow/buffalo milk, tests the milk on multiple quality parameters, and delivers natural, fresh, and unadulterated milk to the customer within 24–36 hours of milking. Country Delight's mobile consumer app enables to subscribe and place ad-hoc orders across farm fresh and pure food essentials, such as cow milk, buffalo milk, low-fat milk, fresh paneer, curd, desi ghee, eggs, fruits and vegetables, fresh bakery products, etc. All ordered products on a particular day are delivered at the consumer's doorstep the next morning between 6–8 AM. Country Delight facilitates hyperlocal delivery, and is currently serving 2,00,000 families across Delhi, Mumbai, Pune, and Bengaluru.

Technology Description

Country Delight milk is traced all the way directly to the farmers, using the latest and real-time IoT tech to track quality right at the source. Country Delight provides cold chain and quality testing infrastructure at the farmer's location. Country Delight also gives a fresh milk kit to every customer to test the purity of the milk.

Country Delight has employed MoEngage, an intelligent customer engagement platform, built for the user-obsessed marketer. With AI-powered customer journey orchestration, personalization capabilities, and in-built analytics, MoEngage enables hyper-personalization at scale across mobile, email, web, SMS, and messaging channels.

Impact Generated

Country Delight sources milk directly from the farm. It has helped eliminate the middlemen, and allowed more than 1200 farmers to earn a premium.





Name of the Start-Up

TrulyDesi (Gauecogram Agrovikas Producer Company Limited)

Founder Name

Ms. Rupali Kakade

Establishment Date

18/06/2018

Address

**8, Nisarg Vihar, behind MITCON,
Pune- 411045, Maharashtra.**

Contact Number

09881009622

Email

info@gauecogram.com

Annual Turnover

INR 2.83 Crore

Number of Beneficiaries

5000+

Sector

Marketing Solutions



Overview of the Start-Up

Gaucogram Agrovikas Producer Company Limited, with an aim to promote sustainable organic dairy farming on a larger scale with complete traceability and quality assurance, launched the initiative “Truly Desi” in 2018. Truly Desi sells organic milk and by products made from unadulterated A2 milk produced by 700-800 Lal Kandhar cows and 100 Gir cows present in Truly Desi’s own farm.

Business Model

Truly Desi connects farmers from rural India directly with the customers and enables them to sell their produce at a reasonable price. Truly desi deals in Desi Dairy A2 Products, Certified Organic Groceries and Residue Free Fruits and Vegetables.

- Sales model: Subscription – Milk and other dairy products
- Direct sales orders from: Website, Mobile app, At retail outlet, E-commerce aggregators and modern retailers like Reliance Fresh Signature, Natures Basket, Dorabjees etc.

Technology Description

Truly Desi has embedded technology in production, operations, sales and promotions.

- Using blockchain, Truly Desi provides consumers complete traceability to farms
- IoT and AI-based tracking of various parameters such as health, psychological condition, heat detection, fodder requirement, and expected milk yield of cows
- Blockchain-based ERPs reduce wastage and efficiently manage the inventory and supply chain
- Truly Desi Daily App exists on app store and play store
- Products are also sold via website (trulydesi.in), amazon, You Care Lifestyle website, Bombay Organix website, Natures Basket, Dunzo, and Big Basket
- Online marketing tools such as Search Engine Optimization (SEO) are used effectively
- Performance marketing is conducted on social media platforms, Customer Relationship Management (CRM), etc.

Impact Generated

Truly Desi has a strong network of Farmer Producer Companies, a strong sourcing capability from 15000+ farmers, and is serving 5000+ customers. It has:

- 450+ subscribers of A2 milk
- In-house delivery team
- In-house production of all the A2 dairy products by blending in traditional practices - Authenticity and Quality control
- A robust supply chain to supply fresh products directly from farms to consumers within 24 hours of production
- An Omni-channel distribution framework where consumers can order on website, app or buy products from retail stores
- No middlemen involved
- Outsourcing of production of milk through franchise model and IoT & AI powered monitoring of the franchise farms
- Blockchain based ERPs to reduce wastage and efficiently manage the inventory and supply chain
- Helped reduce 35% cost of production of milk, vegetables, fruits and organic grocery by using cow dung and cow urine based farm inputs.
- Enabled higher selling margins and is still affordable for consumers
- Developed Cow urine and Cow dung based Ayurvedic medicines and Panchagavya products





ANIMAL HUSBANDRY



Name of the Start-Up

AgroSonic Solutions Pvt. Ltd.

Founder Name

Mr. Anil S. Tatti

Establishment Date

17/07/2020

Address

102, Varija, Phattelal Marg, Off Law College Road Erandawane, Pune -411004, Maharashtra.

Contact Number

+91-9822400825

Email

director@agrosonic.in

Annual Turnover

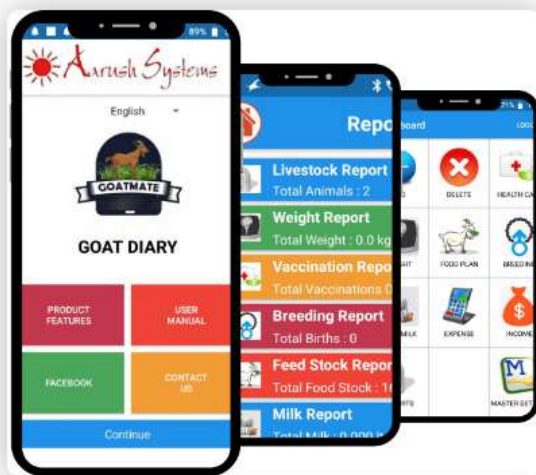
NA

Number of Beneficiaries

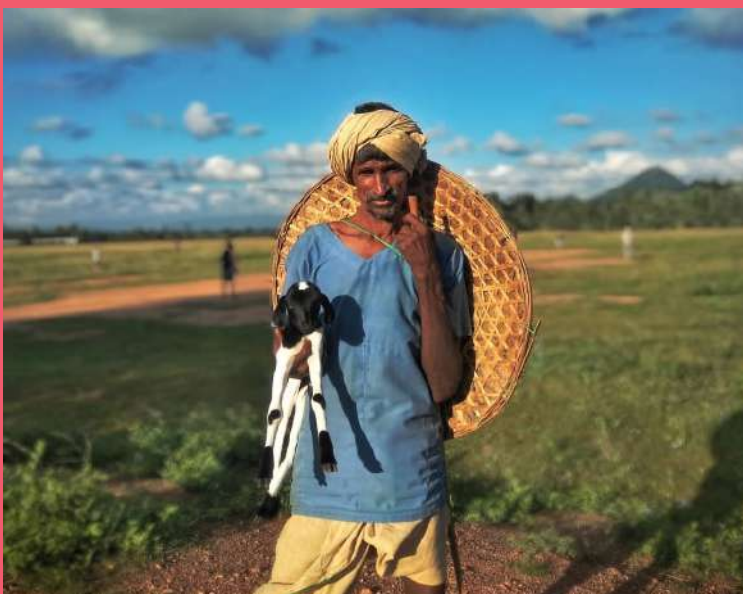
100+

Sector

Livestock Management (Goat & Sheep)



GoatDiary Android App



Overview of the Start-Up

AgroSonic Solutions helps farmers improve every aspect of goat & sheep farming for commercial milk & meat production. The firm's Goat Mate Livestock Management Application Software & Goat Diary Android App help in management of livestock farms, goat/sheep breeding, fattening, weight management, vaccination, dairy milk production & processing, fodder procurement, inventory management, supply chain, financial data management and analysis.

Business Model

Goat Farm Livestock Management Software and Goat Diary Android App help farmers optimize the performance of their farm and increase their productivity. The firm offers complete value chain management services, comprising of rural goat/sheep farmers, fodder suppliers, drug manufacturers, insurance companies, civil construction agencies, finance/credit companies, NGO, meat processing units, abattoirs, traders, wool fabric manufacturers, goat milk/cheese manufacturers, and gives a complete end to end solution from farm to fork. The SaaS platform and the Android App enable online consultation with veterinary doctors and farm experts, and provide multi-lingual, user friendly and intuitive solutions.

Technology Description

Goat Farm Livestock Management Software and Goat Diary Android App are technology solutions to address the problems in commercial goat farming, and are available for Desktop, Web, and Mobile platforms. They comprise of decision-making tools with speedy, easy data entry, flexible & powerful reporting. They give the farmer and all other stakeholders a daily reminder of tasks to be done, inform (in-advance) them about the vaccinations to be given and weight measurements to be taken, sends frequent reminders on the entire breeding history of each animal along with the nutrition intake and milk output. The farmer can easily maintain his inventory stock and accounts on this system.

Impact Generated

The firm's services:

- Help farmers in improving efficiency of farm operations by reducing mortality and improving health of livestock.
- Drive better decision making with respect to resources and finances, increasing return on investment.
- Provide integrated perspective on vaccinations, health, medicines from doctors.
- Keep the livestock records up-to-date to provide an aggregated view, that tracks growth and metrics.





Name of the Start-Up

**Cornext Agri
Products Pvt. Ltd.**

Founder Name

Mr. Madhav Kshatriya

Establishment Date

21/07/2015

Address

**411, B-Block, BHEL Manasa
Executive Towers, Tiwari Nagar,
Hyderabad - 500050, Telangana.**

Contact Number

9912744000

Email

info@cornext.in

Annual Turnover

INR 11.19 Crore

Sector

Animal Feed/Fodder Supply Chain



Overview of the Start-Up

Cornext, in addition to manufacturing and selling silage baling machines, supplies silage bales to dairy farmers and entrepreneurs. The firm uses a disruptive preservation technology called 'silage baling', aimed at addressing India's feed and fodder crisis.

Business Model

Cornext has an integrated business model to supply animal nutrition products to dairy farmers. They have two revenue streams: (1) selling their patented product 'Silage Bales' to entrepreneurs and (2) selling their silage to dairy farmers. They sell silage balers to entrepreneurs and buy back the produced silage and play a crucial role in creating a market link between silage entrepreneurs and dairy farmers.

Cornext has launched a first-of-its-kind mobile app 'FeedNext', which offers low-cost quality feeding solutions such as baled silage, mineral mixtures and feed supplements to dairy farmers.

Technology Description

The quality and shelf life of the baled silage depends on two factors, the chopping length and compaction for better anaerobic (in absence of oxygen) conditions. Cornext balers are designed to produce 600 to 700 kg per cubic meter density. These balers use compaction technology based on the rotary compaction principle to create a consistent compaction throughout the bale. This puts their technology ahead of their competitors who use technologies like vacuum packing and vertical compression.

Impact Generated

In addition to having produced and supplied more than 2 lakh MTs of silage (20 million cattle rations) across 20 states in India, Cornext has made a difference in the below mentioned aspects as well:

- **Employment Generation:** Cornext has created 200 fodder entrepreneurs across the globe, with a single unit providing village-level employment. This cumulatively adds up to the direct employment of 3000 people.
- **Economic Benefits:** Feeding silage improves milk productivity of cattle by 2 liters/day.
- **Water Saving:** For producing good quality silage, the crop should be harvested only at 80 days (120 days when harvested for grain), thereby reducing water usage.
- **Environment:** Harvesting for silage consumes the whole crop and thus prevents stubble burning.
- **Value-Addition:** Silage is a fermented product that is high in energy, palatability, and digestibility and this value-addition involves inoculation that breaks down the complex carbohydrate structures into simple sugars enhancing the nutritious value and taste of the fodder.





EGGOZ

NUTRITION

Name of the Start-Up

**Eggoz Nutrition
(NUPA Technologies
Pvt. Ltd.)**

Founder Name

Mr. Abhishek Negi

Establishment Date

30/11/2017

Address

**SF 707-708, 7th Floor, JMD
Megapolis, Sector 48, Sohna Road,
Gurugram-122018, Haryana.**

Contact Number

9873366358

Email

abhishek@eggoz.in

Annual Turnover

NA

Number of Beneficiaries

3

Sector

Poultry



Overview of the Start-Up

Eggoz is trying to help organize the egg market in India where more than 97% of the eggs are still sold in loose format.

Business Model

The business model is tech-enabled and asset-light. Farmers are on boarded to an integrated platform, which includes poultry feed & nutrition integration using only herbal ingredients, and bird management technology to improve farmer income by 2X.

Eggoz Nutrition promises to bring protein-rich eggs from local farms to retailers within a span of 24 hours of laying. Consumers can buy Eggoz eggs from retailer or app and enjoy freshness. Eggoz eggs are herbal and free from antibiotics and chemicals. Eggoz eggs pass through a total of 11 safety checks including cleaning, UV Sanitization, grading.

Technology Description

Eggoz has developed Pragati Farm Management App and installed IoT devices at each farm which helps streamline the farmers onboarding. Farmers get access to tech information, veterinarian advisory support and other resources to improve productivity. The firm aims to solve the farmers' challenges in accessing markets, quality inputs, data and advisory. Eggoz gives full traceability of each egg from farm to fork.

Impact Generated

Poultry farmers have always been exploited by traders and private players with lower than market rates and no helping hand. Eggoz has deeply integrated with farmers with 100% purchase guarantee, feed formulation, bird health management and on-demand experts. Farmers on Eggoz platform are earning at least 30% more compared to previous setup.

India is the second largest consumer of eggs in the world but most consumers buy eggs that are at least five to seven days old, leading to loss of nutrition. On the other hand, Eggoz provides 24-hour farm fresh eggs with standardized nutrition & safe herbal feed, thereby contributing to make India a Protein+ve Nation.





Name of the Start-Up

Krimanshi Technologies Pvt. Ltd.

Founder Name

Mr. Nikhil Bohra

Establishment Date

06/06/2015

Address

**F-173, Agro Food park,
Boranada - 342012, Rajasthan.**

Contact Number

7742863302

Email

nikhil@krimanshi.com

Annual Turnover

INR 4.32 Crore

Number of Beneficiaries

~10,000 Farmers

Sector

Manufacturing of Animal Feed



Overview of the Start-Up

Krimanshi is revolutionizing the Indian feed sector by creating a new value chain around unconventional feed resources to produce functional ingredients for animal feed. Krimanshi manufactures nutritious climate resilient animal feed based on alternate fiber, protein and fat derived from upcycling of organic food waste and agri residues.

Business Model

Krimanshi operates with a 25 TPD waste processing unit in Jodhpur, Rajasthan, manufacturing cattle feed, producing 4 different products as per the BIS standards. The firm works with a network of retailers, distributors and farmer producer organizations in Jodhpur, Jaipur, Alwar, Dholpur, Ajmer, Pali, Nagaur and Barmer districts of Rajasthan, and Patan and Banaskantha districts of Gujarat, covering over 5,000 farmers and serving ~20,000 cattle heads. The firm also operates a 20 TPD waste processing unit in Bengaluru where food waste collected from Safal and Kolar APMC is upcycled into functional ingredients, saving a sizable amount of carbon emission into the atmosphere. So far, the firm has transformed 800 tonnes of fruit-vegetable waste into functional ingredients till date, saving ~1,520 kg of CO₂ per tonnes of waste equivalent in GHG emissions.

Technology Description

Krimanshi solves the problem of transformation of food waste and the production of alternative protein ingredients by converting urban organic waste into high value insect protein, which replaces water and climate intensive plant protein as well as overharvested and depleting fish protein used in animal feed. They work on the circular economy model to convert food waste into sustainable balanced animal feeds, solving 2 issues at the same time and contributing to UN SDGs on climate action and food security.

Impact Generated

- **Social:** Krimanshi has created 25 full time and 30 part time jobs in waste collection, processing, and distribution. As the firm is scaling up, it is creating more dignified jobs for manual scavengers in food waste collection and processing.
- **Economical:** Krimanshi's feeds have helped farmers save 10% in feeding costs, saving Rs. 150 in feed costs/ cow/ month. Owing to Krimanshi's cattle feed, farmers have witnessed upto 20% increase in milk production and now earn upto Rs. 1800 extra/ cow/day. Direct feeding of insects have shown decrease in time in gaining average age in broilers, hence saving in costs in rearing poultry and fish.
- **Environmental:** Krimanshi works on a circular economy model by cutting down CO₂ and GHGs emissions, providing feed prepared from upcycling of agro-waste.

For every ton of food waste upcycled, the firm saves emission of 1.9 tons of CO₂ equivalent in the atmosphere. They're also setting up a capacity to treat 25 tons of food waste into feeds/ day.





Name of the Start-Up

Symbiotic Foods Pvt. Ltd.

Founder Name

Mr. Manoj Kumar Bosumatary

Establishment Date

02/05/2016

Address

**Vill-Dhekidol, PO-Ghoramari,
PS-Tezpur, Sonitpur - 784105,
Assam.**

Contact Number

9560998889

Email

mkbasumatary@gmail.com

Annual Turnover

INR 3.87 Crore

Number of Beneficiaries

More than 10,000 Persons

Sector

**Livestock Production and
Management**



Overview of the Start-Up

Symbiotic Foods Pvt. Ltd. is a pioneer organization established to create change in pig farming system in North-East India. The company started with a small breeding farm and then built a state-of-the-art pig breeding facility with 250 sows and 3,000 fattening facilities in the last few years. The company is producing more than 6,000 quality piglets annually with a target of 3,000 ready to slaughter animals at any given time every year.

Business Model

Symbiotic Foods works directly with farmers creating pig clusters by ensuring complete end to end support to produce quality hygienic pork with traceability for the consumers. Key components of their model include:

- Creation of pig clusters around its nucleus breeding facility
- Training and capacity building of the entrepreneurs
- Linking to financial institution and facilitate loans for the business
- Supply quality piglets
- Supply of feeds with supplements
- Veterinary support and monitoring
- Market linkage and buy back arrangement with farmers
- Providing hygienic quality pork to consumers through its channel, partners with its own brand

Technology Description

The company is using various technologies to run the farm. Some of the innovative technologies used are artificial insemination, tagging animals for data collection, software driven data maintenance, innovative feed formulation and following standard processes while running the farm for best results.

Impact Generated

- **Training and capacity building:** Training and capacity building are critical components for success in commercial pig farming. So, Symbiotic Foods provides on-the-job training for those who want to start pig farming and guides them in the right direction. The firm has trained more than 1,200 entrepreneurs on commercial pig farming as on date, seeding the bud for a pink revolution across the North East.
- **Quality hygienic pork to the consumers:** Symbiotic Foods Pvt. Ltd. successfully changed peoples' perception about quality clean pork with its brand-A Slice of Gahoree. The firm directly provides frozen quality pork to the consumers by sourcing pigs from its farm and the contract farmers, ensuring traceability for pork eaters. Traceability of the product is the firm's main focus while making quality pork available to the consumers.
- **North East Progressive Pig Farmers Association (NEPPFA):** The firm is working towards starting NEPPFA as a collaborative organization to create awareness on pig farming and advocacy on piggery related issues to those who need concerted effort to build North East as a piggery hub.





FISHERIES



Name of the Start-Up

**Aquaconnect (Coastal
Aquaculture Research
Institute Pvt. Ltd.)**

Founder Name

Mr. Rajamanohar Somasundaram

Establishment Date

21/04/2017

Address

**Type 2/17, Dr. VSI Estate,
Thiruvanmiyur, Chennai - 600041,
Tamil Nadu.**

Contact Number

+91 9865240980

Email

raj@aquaconnect.blue

Annual Turnover

INR 34.48 Crore

Number of Beneficiaries

60,000+ Fish and Shrimp Farmers

Sector

Financial Services



Overview of the Start-Up

Aquaconnect is a full-stack aquaculture input and output platform with embedded fintech, supported by a physical and digital distribution network. The firm works with various stakeholders in the aquaculture value chain to drive responsible production and consumption, improve efficiency, transparency, and increase value realization through AI and satellite remote sensing technology.

Business Model

Aquaconnect provides shrimp and fish farmers services such as farm advisory, farm inputs marketplace, farm finance and insurance, and market linkage using a freemium business model. The firm also leverages data intelligence to industry stakeholders for identifying the potential customers for their business upscaling.

Technology Description

Aquaconnect App

The application 'Aquaconnect' is used by the firm's own dealer network called "Aquapartners" and the dealers' captive clientele base. The app captures pond data to provide data-driven farm advisory to help farmers improve their farm productivity up to 15% and reduce losses. It uses deep learning to provide context-aware alerts & suggestions to improve water quality, aquatic health and optimize feed consumption.

Aquacred

The AI-powered dashboard with satellite remote sensing helps banks and insurers build credit profiles, evaluate risk scores, validate and monitor portfolio performance and bridge gaps between farmers and formal financial institutions.

Aqua Bazaar

Aquabazaar enables transparency in post-harvest market linkage activity. It matches farmers with a wider range of potential buyers, and provides traceability to the buyers.

Impact Generated

The start-up has helped maximize per pond productivity. Its solutions have helped:

- Increase farm productivity by 20%
- Reduce feed usage by 30%
- Transact 7,66,500 lbs of sustainable seafood
- Produce 40 million lbs of sustainable seafood
- Reduce cost of capital by 60%
- Generate employment for 100+ aquamen & aquawomen
- Promote inclusion of women in aquaculture (>50% women participation in remote advisory team)
- Increase profit margins for farmers by 15%





Aqua Exchange

Name of the Start-Up

**AquaExchange
Agritech Pvt. Ltd.**

Founder Name

Mr. Pavan Krishna Kosaraju

Establishment Date

18/08/2020

Address

**9-1-45/3/2, Varun Residency, New
Resapuvanipalem, Visakhapatnam-
530013, Andhra Pradesh.**

Contact Number

+91 868 604 6444

Email

pavan@aquaexchange.com

Annual Turnover

INR 34.5 Crore

Number of Beneficiaries

2,500

Sector

**Supply of Electrical Appliances in
Aquaculture**



Overview of the Start-Up

AquaExchange (AquaX) is a full-stack, tech-driven solution which is solving key problems in India's shrimp & fish ecosystem. AquaX's patented technology solutions and access to formal finance ensure that the farmers' crop success rate increases and his profitability from farming improves.

Business Model

AquaExchange (AquaX) is an agritech start-up providing a full stack of services to the farmers and other ecosystem players in the inland shrimp and fish culture industry. Its stated mission is to provide real-time data to the farmers regarding their crops in order to provide customized services at scale and covering all the elements of the value chain. AquaX follows a farmer centric scalable approach with the following services:

- **Technical Devices**—IoT devices for 24*7 monitoring and control of farm equipment for increased productivity
- **Formal Finance**—Providing access to formal finance
- **Input Sales**—An e-commerce store to procure inputs at the cheapest possible prices
- **Harvest as a Service**—Providing direct market linkages for output harvests and eliminating receivables risk through direct payments

Technology Description

AquaX uses IoT and Machine Learning technologies to solve farmer problems such as Power Management and Feed Management. AquaX's patented technology product called PowerMon continuously monitors the power consumption of the farms, analyses the same using Machine Learning techniques and sends custom alerts to farmers to stop crop losses. Its Power Factor management technology optimizes the power usage and reduces electricity consumption by 20%. Its intelligent feed managing devices ensures that the feed is distributed evenly and timely, thus reducing the feed wastage.

AquaX, utilizing the data generated by its devices, facilitates crop loans to farmers from formal financial institutions and reduces the cost of production for the farmers.

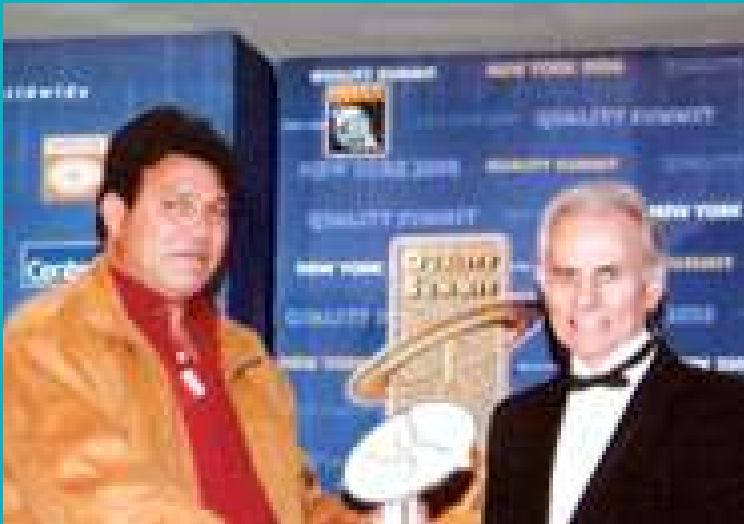
Impact Generated

AquaX has generated the following impact in the aquaculture ecosystem:

- The IoT devices ensure that no crops are lost due to power failures which is otherwise a major stress factor for farmers
- The devices reduce electricity consumption by 10-20%, reducing the overall farmer expenses by 3%. In the process, 4 tCO₂e (tonnes equivalent) of CO₂ emissions are also reduced.
- Due to the access to formal finance, farmers are currently able to access credit at 15%–18% instead of more than 40% from the local dealers. Access to cheaper credit has reduced the input costs by at least 10% for the farmers.
- For fish farmers, AquaX is creating access to new markets by creating patenting technologies for transport of fish with least levels of mortality.

AquaX is also providing assurance to farmers by providing guaranteed purchase price in many cases.





Name of the Start-Up

Fish Bite (Sultan Fish Seed Farm)

Founder Name

Mr. Sultan Singh (Padma Shri)

Establishment Date

04/01/2016

Address

**Butana Village, near Nilokheri Post,
Karnal District - 132117, Haryana.**

Contact Number

+91-9812032544

Email

sfsfinfo@gmail.com

Annual Turnover

INR 2-3 Crore

Number of Beneficiaries

NA

Sector

Fish Farming and Processing



Overview of the Start-Up

Sultan fish seed farm is a reputed fish farm involved in fish farming, breeding, processing, and research and development. The firm has been manufacturing fish feed, marketing value-added fish products, working towards conserving fish diversity, and fulfilling the nutritive requirements of the people for four decades.

Business Model

Sultan fish seed farm is in the business of freshwater fish breeding and culturing Indian major carps (Rohu, Mrigala, Catla), Chinese major carps (common carp, grass carp, silver carp), freshwater prawns and Catfishes since 1983. The firm initially trains the youth and farmers regarding fisheries, and later provides them with fish seeds. The firm is also the highest fish seed producer in North India and supplies them to farmers of nearest states like Haryana, Punjab, Rajasthan, Uttar Pradesh, and Himachal Pradesh; farmers carry out fish farming and sell these fishes back to the firm at market price. Further these fishes are processed for making value added products like fish burgers, fingers, nuggets, etc. which are then marketed under the brand 'Fish Bite', and sold in the markets of New Delhi.

Technology Description

- The firm has adopted innovative technologies with respect to both fisheries and the other crops they cultivate in their farm.
- Adopted integrated farming system where it includes dairy, piggery, duckery, fishery and poultry along with agroforestry (Neem, Shisham, Sangwan around the ponds) and cultivation of horticultural crops like broccoli, red-yellow capsicum, peas, garlic and others, utilizing the waste space.
- The farm is fully equipped with equipments like aerators for pond farming and others including seed sowers, harvesters, milking machines and quality control labs.
- RAS (Recirculatory Aquaculture System) technology is used for increasing freshwater fishery production up to 30 times more than the conventional approach.

Impact Generated

The firm has influenced around 20,000 farmers in the entire country in taking up fisheries as a business. Every year almost 700-800 young graduates of botany and life sciences from North India are being trained and exposed to innovative farming by conducting visits. The firm has signed a MoU with few universities under which students are trained for 2 months about fishery farming and their breeding techniques. The gram panchayats have earned higher income by leasing ponds, which has helped in the development of the village.





Name of the Start-Up

Freshtohome Foods Pvt. Ltd.

Founder Name

Mr. Shahnawaz Kadavil

Establishment Date

10/06/2011

Address

**FreshtoHome Foods Private Limited
No. 1, 2nd Floor, Carlton Towers, Old
Airport Road, Bangalore - 560008,
Karnataka.**

Contact Number

18003133302

Email

customercare@freshtohome.com

Annual Turnover

INR 800 Crore

Number of Beneficiaries

**Over 3,000 Fishermen and
Livestock Farmers and Over 140
Delivery Agency Owners Employing
Over 2500 Delivery Executives**

Sector

Fisheries and Aquaculture



Overview of the Start-Up

FreshtoHome is a vertically integrated e-commerce company in the fish and meat space, enabling delivery of more than 2.5 million orders per month of preservative-free and fresh fish and seafood and antibiotic residue-free and fresh poultry and meat in 200+ cities in India.

Business Model

FreshtoHome Foods Pvt. Ltd. is a marketplace e-commerce platform that partners with vendors who sell 100% Fresh, 0% Chemical fish, seafood, and preservative-free meat. The brand has recently introduced a clean label range of ready-to-cook and ready-to-eat products. As a result of a robust, tech-enabled supply chain model, FreshtoHome has been able to eliminate the middlemen and reduce the coast-to-customer cycle to less than 24-36 hours. FreshtoHome, via its commodity exchange, empowers its sellers to source meat and fish directly from livestock farmers and fishermen and supply fresh produce on its platform at mass-market prices in all major Indian markets.

Technology Description

FreshtoHome has incorporated technology to the length and breadth of its business, right from sourcing to supply chain to the delivery mechanism. The firm uses AI-based technology (called Commodities Exchange) that allows fishermen or farmer to electronically auction their produce. The predictive modelling and machine learning modules aid the firm in estimating the product demand scenarios in various geographies factoring in seasonality and enabling accurate inventory planning. FreshtoHome enables sellers to directly source from fishermen and farmers aided by a robust cold chain and state-of-the-art factories in all major cities.

Impact Generated

FreshtoHome has generated employment for more than 17,000 people and has been successful in creating multiple micro-entrepreneurship opportunities across several states. It has touched upon the lives of thousands of fishermen across the country and has helped them learn to leverage technology to earn a better livelihood. A large community of fishermen is now able to earn maximum profits without the interference of middlemen, who were known to snatch away a partial source of their income. FreshtoHome is a token of trust, safety, and a promise for nutritious fish and meat in more than 2 million homes in India today.





Name of the Start-Up

Innogle Technologies Pvt. Ltd.

Founder Name

Ms. Shobana Uthayashankar

Establishment Date

01/04/2019

Address

**42, 81, TT Krishnamachari Rd,
CIT Colony, Alwarpet,
Chennai - 600018, Tamil Nadu.**

Contact Number

9941909070

Email

shobana.u@innogle.com

Annual Turnover

NA

Number of Beneficiaries

31

Sector

Ocean Technology Solutions



Overview of the Start-Up

Innogle has designed an emerging 5G technology integrated with IoUT (Internet of Underwater Things) and Artificial Intelligence that helps reduce bycatch and carbon footprints for the fisherman/boat owners, save lives at sea, and mine granular data to collaborate and fine tune data gathered by satellite for the Government agencies. The innovation is useful for fishermen/boat owners, Government, and researchers.

Business Model

Revenue streams include:

- Hardware/Device which is sold once to Boat Owners /Fishermen for each cage owned by them
- Subscription per month per user or vessel for updated charts and data reports
- AMC for the products

Technology Description

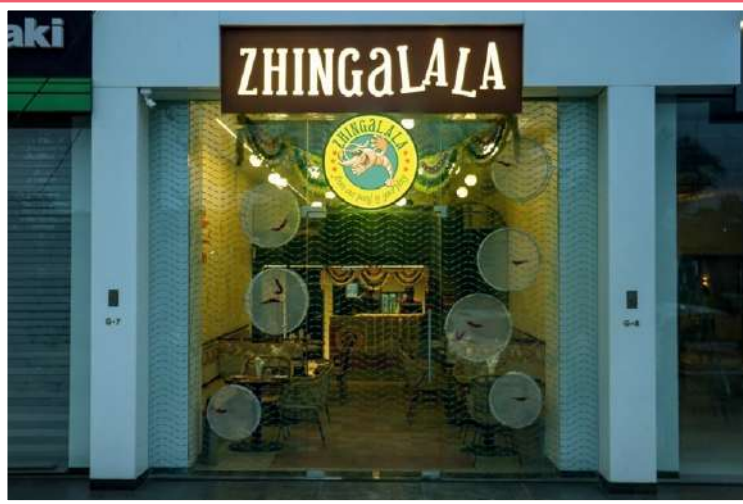
- **UWD or underwater device:** uses SONAR, light and motion sensors and underwater camera to map the marine life and feed signals to the computer on board for matching with the desired catch.
- **Kadal Compass (KC)- C(Coastal) & D(Deep Sea):** is a server on the fishing boat which (i) receives signals from the UWD and matches with a pre-fed database using AI algorithms to guide the UWD to use light and motion sensors to attract or repel the right/wrong type of fish/marine life, (ii) guides the boat owners about the type of net to be used, net size, depth and width to be cast, when to pull etc., reducing cycle time and wastage, (iii) stores data gathered by the UWD regarding surface temperature, wind speed, height, depth etc. (iv) synchronizes with the shore establishment and the Life Safety watch, transmits signals for vessel position identification and guide the vessel to the right zone using GPS.
- **Life Safety Watch:** Transmits location signals and synchronizes with the KC-C or KC-D to enable search and rescue operations, even during times of reduced visibility.
- **SARROF (Search and Rescue Ocean Floater and Flyer):** A combination of a floater and a drone, it has a range of 3 kms from base for floating and an enhanced visibility using the height of the drone for search and rescues in a 5 km radius- very useful for data collection in the floating mode and capturing images of the surface using the drone.

Impact Generated

Innogle is a women led startup helping:

- Create digital ocean by providing digital ID for each fisherman
- Save loss of \$ 1 billion due to overfishing and by-catch and lives of 24000 fishermen every year
- Solve the global issue of cross border
- Create a policy for an organized fishing industry





Name of the Start-Up

Zinghalala (Mayank Aquaculture Pvt. Ltd.)

Founder Name

Dr Manoj Mohanlal Sharma

Establishment Date

04/05/2019

Address

F / 17 -18 Raj Green Heights, Behind ICICI Bank, Near Saroli Bridge, Jahangirpura, Surat - 395005, Gujarat.

Contact Number

9824112856

Email

mapl.shrimp@gmail.com

Annual Turnover

INR 20-30 Crore

Number of Beneficiaries

200

Sector

Shrimp Farming/Aquaculture



Overview of the Start-Up

Mayank Aquaculture Pvt. Ltd. is one of the largest shrimp farming companies of India. The founder has also entered retail segment of the domestic market with brand “Zhingalala Fresh”, selling frozen/fresh shrimps. He also has a restaurant Zhingalala, where he serves farm raised shrimps.

Business Model

Mayank Aquaculture Pvt. Ltd.

Business model is of shrimp farming where shrimps are reared in culture ponds and later sold to the processors for the export market.

Value Chain is as follows:

Inputs (Seed, Feed, Medicine) – Farmer (Farm infrastructure) – Processors (Export Market)

Zhingalala

- First of its kind pesco-vegetarian restaurant serving 45+ shrimp delicacies using farm raised shrimps.
- Based on “From our Pond to your Plate” concept where farmed shrimps are served to the customers.

Technology Description

The founder has worked on creating a “Multiphase Nursery Rearing Concept” which is basically multiphase indoor rearing of shrimp post larvae under complete biosecurity protocol.

Uses:

- Shortens the days of shrimp culture and helps supply disease free robust PL 25 to 30 days old.
- Helps farmer reduce the days of culture and cost of production, thereby doubling the crop, increasing efficiency, and doubling the profit.
- Guarantees disease free culture throughout the year to the farmers.
- Multiphase indoor rearing enables all season cropping.

For this concept, the founder has recently received the National Award for Best Technology Infusion / Innovation by National Fisheries Development Board, Government of India.

Impact Generated

Mayank Aquaculture Pvt. Ltd.

- Generated employment (directly and indirectly) for more than 1.5 lakh individuals
- Shrimp farms produce 350 to 400 tons of export quality shrimps annually, worth 10 to 12 Crore.
- Helped enhance the production and export of shrimps, making industry self-reliant and increasing the shrimp farmer’s income.

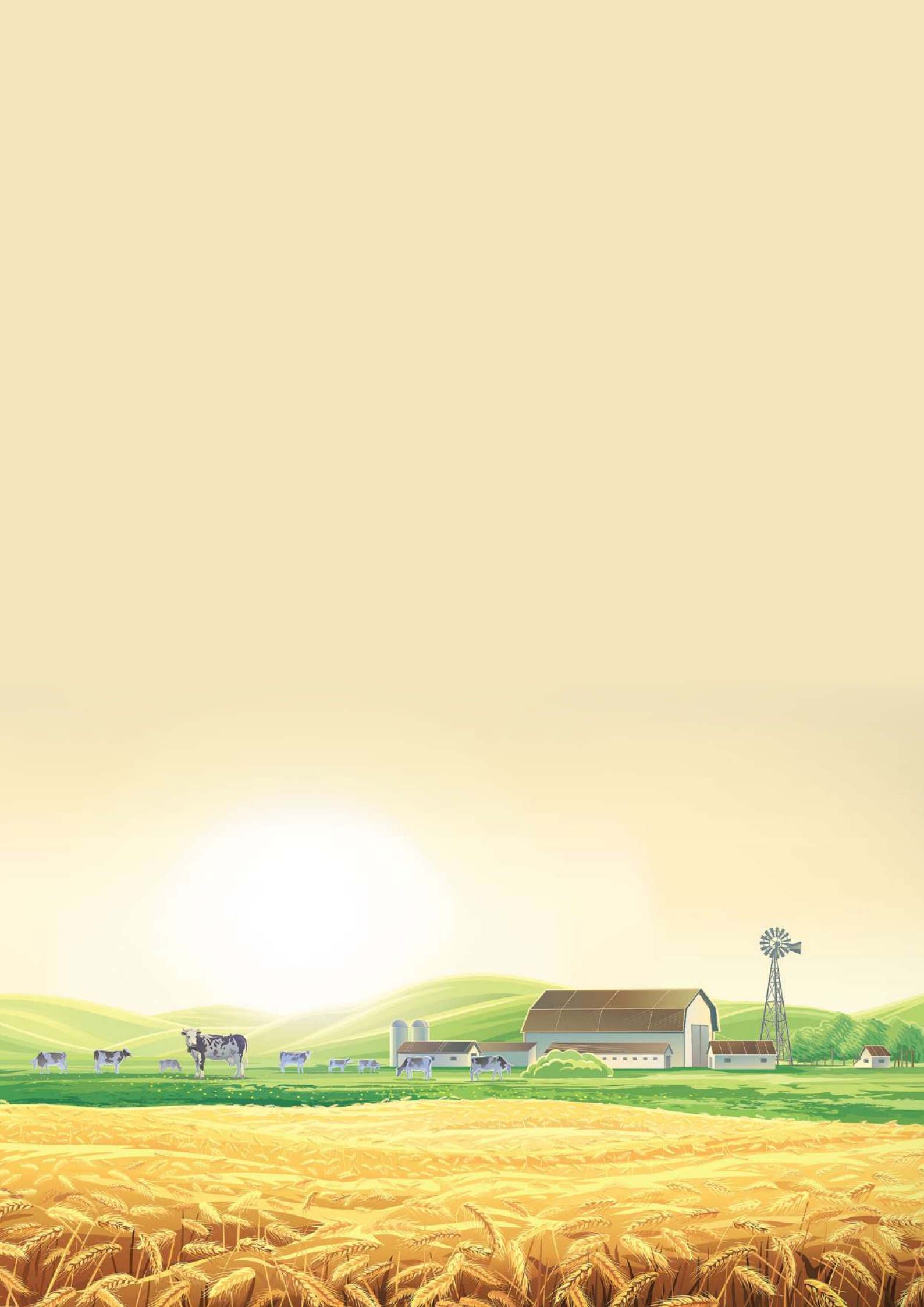
Zhingalala

- Brought a change by making people realize the nutritive value of shrimps and how shrimps can also be part of the non-vegetarian diet.

Multiphase Shrimp Nursery Rearing

A shrimp farmer using the conventional technique stocking with PL 8 can complete a crop cycle in a minimum of 120 days. This is one of the reasons, 60-70 percent of the farmers practice single crop strategy. The founder’s innovation facilitates year around seed production, enables farmers to take two crops with PL 35, thus doubling the crop and production.





OTHERS



Name of the Start-Up

Adimantar Lifestyle

Founder Name

Mr. Taru Pant

Establishment Date

05/09/2017

Address

**21 C, Chakrata road,
Ballapur Chowk, Dehradun -
248001, Uttarakhand.**

Contact Number

+91- 9870706126

Email

bamboozzproducts@gmail.com

Annual Turnover

INR 1.1 Crore

Number of Beneficiaries

2000

Sector

Bamboo Promotion



Overview of the Start-Up

Adimantar Lifestyle engages a team of experienced designers to assist, train, and support semi-skilled women of the Tharu tribe in making art and crafts from local bamboo and natural fiber.

Business Model

Adimantar's experienced team helps tribal women hone their unique skills in making attractive and eco-friendly products from local bamboo and natural fibers. After developing impressive designs, Adimantar lifestyle creates a market in assistance with self-help groups and cooperatives. Some of the products sold by Adimantar wholesale include bamboo mobile sound enhancer, night wear, and women undergarments.

Technology Description

Adimantar, with the support of expert designers from NIFT, has brought in technological intervention, to transform local bamboo and natural fiber into attractive and eco-friendly products. The firm has also helped in supporting rural craftsmen with surface ornamentation of bamboo mobile sound enhancers.

Impact Generated

- Adimantar Lifestyle has given fading traditional handicraft a resurfaced aesthetic design. The number of artisans has increased from 20 to more than 20,000 in just two years.
- The monthly income of these artisans has increased by almost ₹10,000-₹15,000, and around 150 new artistic designs have hit the market. Adimantar is playing an important role in empowering the youth and women, by generating employment in rural areas, preventing them from migrating to urban areas.
- Adimantar has helped artisans in getting exposure and opportunities, through fairs and exhibitions like Dilli Haat, Tribal fairs, and other state and national exhibitions. It has made them exchange different art forms, cultures and traditional designs of different regions. Farmers are attracted towards the huge demand of bamboo and other natural fibers which are used as raw material for these products. Motivated by this, local farmers have started growing bamboo and other high yielding crops which will increase their earnings multifold compared to the conventional crops, which they were previously growing.





Name of the Start-up

Agadyati Herbs & Food Pvt. Ltd.

Founder Name

Mr. Ambika Patel

Establishment Date

15/10/2019

Address

B-18 Jayanti Complex, Marhatal, Jabalpur- 482002, Madhya Pradesh.

Contact Number

9300112615

Email

ambikapatel1969@gmail.com

Annual Turnover

INR 12 Lakh

Number of Beneficiaries

200

Sector

Organic Framing of Stevia



About the Start-Up

Aghadyati Herb & Food Pvt. Ltd. provides 100% organic Stevia leaf extract at an affordable price to consumers.

Business Model

B2B: Agadyati Herbs & Food Pvt. Ltd. sells stevia powder to medical shops and health care centers across major cities of Madhya Pradesh through distribution chains and Government agencies. The firm has appointed a super-stockist and distributor for each location.

Technology Description

The firm trains farmers in growing stevia plants. Stevia leaves are harvested, dried, and then steeped into hot water. After multiple stages of filtering and centrifuging to concentrate the sweetest components of the leaf, the resulting purified stevia leaf extract is ready to be sold commercially. Stevia leaf extract is comprised of steviol glycosides, which are the sweet-tasting parts of the leaves.

Impact Generated

Stevia is organic, natural, herbal, and a perfect substitute to table sugar. It is about 100 to 300 times sweeter than table sugar, but has no carbohydrates, calories, or artificial ingredients—hence perfect for people with diabetes or those trying to monitor their weight.

Apart from providing health benefits to consumers, the innovation has also benefited farmers. Agadyati Herbs & Food Pvt. Ltd. has trained more than 200 farmers in production of stevia, hence providing them employment, and a source of income.

Agadyati Herbs & Food Pvt. Ltd. is also promoting organic farming. It is inspiring and motivating the agricultural community of India by conducting awareness programs for modern agricultural practices and providing the knowledge of many other sectors to farmers and youngsters.





Name of the Company

Apex Coco and Solar Energy Limited

Founder Name

Mr. Shrinivasan RR

Establishment Date

09/11/2018

Address

Apex Coco and Solar Energy Limited, 33B, Vaikkal Thottam, Sheriff Colony, Tirupur - 641604 TamilNadu.

Contact Number

+91 9843072123

Email

seenu@apexcoconuts.com

Annual Turnover

INR 110 Crore

Number of Beneficiaries:

Direct Beneficiaries - 600 Employees

Indirect Beneficiaries - ~3000

Sector

Food Processing



Overview of the Company

Apex is the first-of-its-kind, vertically integrated, under-one-roof coconut processing company located in the heart of India's coconut industry- Tirupur, Tamil Nadu. Apex produces premium coconut products that enrich the environment and nourish the health of the people who enjoy them.

Business Model

Apex Coconuts is India's largest coconut processing company. Located in the heart of India's lushest premier coconut groves, Apex Coconuts certified zero-waste facility maintains consistency in sustainability, rigorous quality control, and client satisfaction. Apex Coconuts believes not only in quality, but also in carbon-free production, processing using solar energy, using cutting-edge technology and innovative proprietary methodology.

Apex has a fully automated in-line production plant with a massive daily production capacity. Its food product portfolio includes virgin coconut oil, coconut flour, coconut milk, coconut water, desiccated coconut powder, dietary fiber, coconut milk powder, non-food coir pith, coir fiber, composting media, etc.

Technology Description

Apex Coconut's machines are fully automated and enable extraction of virgin coconut oil from desiccated coconut as well as coconut milk at low temperature, Pasteurization and UHT (DSI) processing from 2% -1 33% fat. The processing factory is one of the biggest in the world with a nut production capacity of 4 lakh per day, and facilities such as UHT processing.

Impact Generated

- Farmers get good and high value for the coconuts. There's a good demand for the firm's products as the factory is situated in the area where 50% of India's coconut is cultivated.
- The firm provides employment to 600 plus people.
- Apex Coconut is India's first sustainable factory for food processing.
- Firm's zero-waste operations are based on the motto "One Coconut, Many Possibilities". Entire water used is recycled, and operations are 100% solar powered, and carbon neutral.
- 90% of the firm's products are for export purpose, thus making India's presence in the global market.
- The firm's products are nutritious and have immense health benefits.





बस्तर से बाजार तक Bastar se Bazaar Tak

Name of the Start-Up

Bastar Se Bazaar Tak Pvt. Ltd.

Founder Name

Mr. Haresh Babu Kashyap

Establishment Date

01/09/2020

Address

**150 Village Lakhanpuri,
Uttar Bastar - 494336,
Chhattisgarh.**

Contact Number

+91 9604444496

Email

bastar44@outlook.com

Annual Turnover

INR 55 Lakh

Number of Beneficiaries

920

Sector

Forest Product Value Addition



Overview of the Start-Up

Bastar Se Bazaar Tak works on post-harvest management and value addition of non-timber forest produce such as custard apple (sitaphal), tamarind (imli), black plum (jamun), raw desi mango, amchoor, herbal gulal, and papaya.

Business Model

Bastar Se Bazaar Tak, a farmer partnership social startup, aims to enhance the livelihoods of gramian Bastarian farmers from Bastar, Chhattisgarh, reduce post-harvest losses, while supplying high quality, unadulterated, processed forest produce to urban consumers at a fair price. Bastar se Bazaar Tak aims to provide additional income with employment opportunities to rural, tribal, forest-dwelling farmers through post-harvest management, value addition, and marketing of processed non-timber forest products.

Bastar Se Bazaar Tak's works on a bottom-up approach while looking after people's health (Sehat), startup growth (Barakat) and community happiness (Muskurahat). The total value chain interventions are divided into three broad areas: Procurement, Processing and Marketing. The firm is making efforts towards changing the contractor/middleman-based non-timber forest products collection system to a collective participatory system, which involves women farmers. Around 80 percent of the firm's revenue comes from the sale of value-added non-timber forest products and 20 percent comes from bi-products, respectively.

Technology Description

The firm ensures sustainable and scalable non-timber forest products' procurement, processing and marketing by giving the labor involved access to free training in grading/sorting packaging and handling, with a guaranteed market for such products.

Impact Generated

- Increasing the incomes of families in one of India's poorest regions
- Provided 84 days of employment to 167 marginalized women and youth
- Procured 45,540 kg of raw custard apple and 54,000 kg of tamarind from 920 household families in 11 villages
- Extracted 7860 kg and 39,000 kg of custard apple pulp and tamarind pulp, respectively
- Reduced 60 percent non-timber forest products' waste by increasing the shelf life through the processing of non-timber forest products; remaining 30 percent (seed and peel of non-timber forest products) is used as an organic manure and bio-pesticide in paddy crop cultivation by 14 farmers
- Adopted organic farming instead of heavy chemicals and fertilizers during its pilot of custard apple





Name of the Start-Up

Han Agrocare Llp.

Founder Name

Mrs. Hiresha Verma

Establishment Date

24/07/2019

Address

13, Prakash Lok, Phase II, Shimla Bypass, Dehradun - 248001, Uttarakhand.

Contact Number

9758400600

Email

hiresha.verma@yahoo.com

Annual Turnover

INR 1 Crore

Number of Beneficiaries

2000

Sector

Mushroom Farming



Overview of the Start-Up

Han Agrocare LLP teaches women in hilly areas to cultivate varieties of mushrooms (including medicinal) in a professional manner, in an AC-controlled plant and using its own compost which is made from agri waste.

Business Model

Han Agrocare LLP sells various varieties of mushrooms, including medicinal ones, such as shitake, mitake, ganoderma, and enoki in fresh, dry, and powdered form. The firm caters to the retail and institutional market. Dry form is used by 5-star and 7-star hotels, and powdered form is used by nutraceutical companies to make wellness and health products like protein powder, protein tea, etc. The firm supplies over 5600 kg of fresh button mushrooms and 700 kg of shiitake mushrooms per week.

The firm also supplies compost made from agri waste to all the hilly regions of Uttarakhand, Uttar Pradesh, and Himachal Pradesh. Other revenue sources include buyback from women & farmers, and sale of value-added products like shitake ginger-ale, ganoderma oil, bakery, beverages, and snacks.

Technology Description

- AC-controlled plants equipped with the latest equipment, growing technologies, and scientific techniques are used to cultivate mushrooms. Currently the firm has 10 plants with each plant having a capacity of one tonne per day.
- Spray drying technique is used to extract Polysaccharides, B-Glucans, Terpenes, Vitamin D, and other relevant healthy proteins and peptides from medicinal mushrooms like Shiitake, Ganoderma, Lion's Mane & Cordyceps and make extracts and powder. Lab test analysis is carried out for determining the percentage of its contents in the powder.

Impact Generated

- Han Agrocare LLP has trained more than 2000 women, tribals, and farmers through FPO and NGOs to cultivate mushrooms, providing them employment, and a source of income.
- The medicinal mushrooms grown by Han Agrocare LLP have properties of anti-cancer, anti-viral, anti-inflammatory and Vitamin D, and help cancer patients build their immune system, increase platelets, and boost energy.





Name of the Start-Up

Kisan Chachi Pickles

Founder Name

Smt. Rajkumari Devi

Establishment Date

16/07/2015

Address

**Anandpur Village, Saraiya Block,
Muzaffarpur - 843126, Bihar.**

Contact Number

+917033977185

Email

kishanchachibihar@gmail.com

Annual Turnover

NA

Number of Beneficiaries

300+ Rural Women

Sector

Food Processing



Overview of the Start-Up

Kisan Chachi, also known as “cycle chaachi”, has set up a non-profit organization that picks up fresh produce from the various SHG-run farms nearby, uses the produce to make homemade pickles, jellies, banana wafers, and jams, packs them, and then sells them in the local market in nearby areas.

Business Model

Smt. Rajkumari Devi would initially grow fresh vegetables and fruits in her own one acre of arid land in an organic manner to make homemade pickles, jellies, and jams. In a short span of time, her products became popular and she started selling them in the local market in nearby areas. Currently, Rajkumari has 23 varieties of jams and pickles, which are also sold in metros of Mumbai and Delhi. As sales picked up and her business grew, Rajkumari would cycle from one village to another to meet women and spread the word, which earned her the name ‘Cycle Chachi’. Her fame in the field of agriculture and value addition has earned her the name of ‘Kisan Chachi’. She has helped more than 300 women form SHGs and work on integrated farming and agri-business. These women get the capital to run their farms from bank loans and Government support from the Swarna Jayanti Swayam Rozgar Yojna.

Technology Description

Smt. Rajkumari Devi initially took training from Dr. Rajendra Prasad Central Agricultural University on cultivation of crops with new techniques and modern practices. After acquiring farming skills and knowledge, Smt. Rajkumari Devi started cultivating vegetables, fruits, trees, and shrubs on her one acre of arid land. She divided her plots in various sections and started growing multiple fruits and vegetables which proved to be profit worthy. She is also leaning towards organic farming and educating farmers regarding its importance. Unlike other farmers who sell their vegetables to the market directly, Rajkumari saw an opportunity to start a business of her own.

Impact Generated

- Kisaan Chachi has been able to mobilize more than 300 women in rural areas to form self-help groups (SHGs) and become financially independent, hence uplifting the lives of these women.
- Kisan Chachi has been educating farmers of her region about the modern agricultural techniques that she herself learns through her visits to various agricultural universities.





Name of the Social Movement

Mission Mera Mobile Mera Marketing Via Marketmirchi.com

Founder Name

Smt. Pragati Gokhale

Establishment Date

08/12/2016

Address

**Plot number 360/a, Gandhinagar,
Nagpur - 440010, Maharashtra.**

Contact Number

9822719618

Email

pragatikin@gmail.com

Annual Turnover

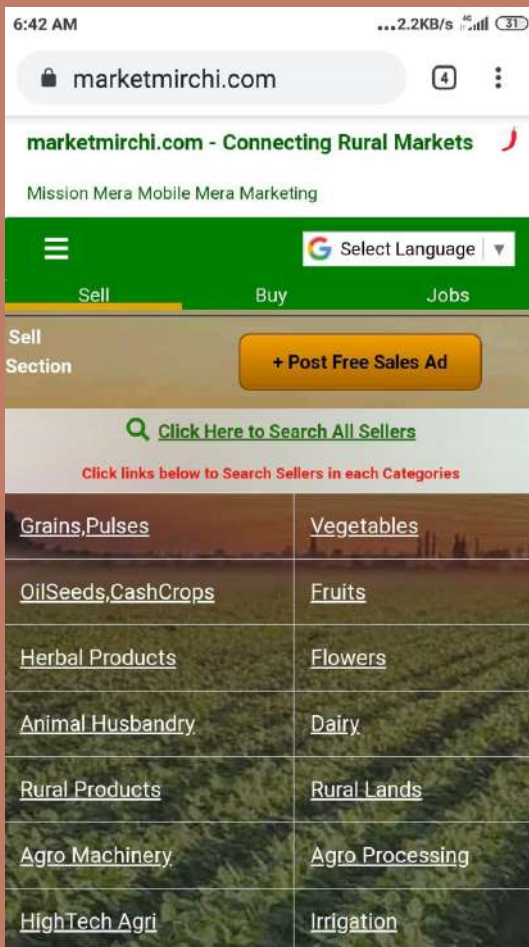
NA

Number of Beneficiaries

20000+

Sector

Digital Marketing



Overview of the Social Movement

Mission Mera Mobile Mera Marketing via Marketmirchi.com is a unique social movement and a digital marketing platform that provides farmers and other rural stakeholders completely free open market to sell and buy agro & rural products.

Business Model

- Marketmirchi.com or Marketmirchi App is designed for farmers, FPOs, Self Help Groups, artisans, rural entrepreneurs, etc. from rural areas having 26 major categories covering all agro and rural products. The platform allows rural sellers to market their agro products by uploading and posting information about them, and buyers to express their interest in buying particular commodity for free, i.e. without any subscription.
- Capacity building sessions are conducted for farmers, FPOs, SHGs, etc. on this platform for them to post their own ads as well as for making direct market linkages. Various online programs are also taken for creating back end linkages with support from various Govt., Non Govt. players working in rural development sector.
- The social movement has no revenue model and the total operating cost does not exceed Rs. 100000 per year.

Technology Description

- Asp.net as Frontend and Sql Server as backend for development of Marketmirchi.com website
- Bootstrap technology for responsiveness and for Marketmirchi App
- IIT CTARA has developed e-learning videos on how to effectively use marketmirchi.com to get many buyers for all agro, rural products in 10 Indian languages
- Artificial Intelligence Data Mining, Machine Learning (with support from IIT RuTag), Search Engine optimization etc. are leveraged to establish frontend (B2B and B2C) linkages for agro rural products.

Impact Generated

Mission Mera Mobile Mera Marketing Via Marketmirchi is helping empower rural India. The site so far has reached 11000+ sellers and 9000+ buyers pan India. Effective online market presence for rural produce is reducing dependence on brokers or dalals. Around 70 percent direct market linkages have seen established by this humble initiative apart from increasing digital footprint of rural India.





Name of the Start-Up

**Soumya Foods
Pvt. Ltd.**

Founder Name

Ms. Divya Rawat

Establishment Date

23/09/2013

Address

**Mothrowala Village,
Dehradun - 248001, Uttarakhand.**

Contact Number

7409993860

Email

soumyafoods.ddn@gmail.com

Annual Turnover

INR 1 Crore

Number of Beneficiaries

NA

Sector

Mushroom Farming



Overview of the Start-Up

Soumya Foods Pvt. Ltd. is a Dehradun-based mushroom-oriented company that facilitates spawn and mushroom production and marketing of value-added products of mushroom. The firm has also trained rural women and youth from various states on mushroom cultivation.

Business Model

The firm produces seeds of mushrooms called spawn. It markets spawn produced to mushroom cultivators and also to trainees. Further, they also cultivate mushrooms (oyster, button and milky) of varied importance, including medicinal mushrooms. They purchase mushrooms cultivated from their contacts and prepare value-added products of mushroom like mushroom masala, mushroom pickles, etc., and then market them. As the demand for mushrooms is high, Ms. Divya Rawat and her network of entrepreneurs don't face any difficulty in selling their produce.

Technology Description

Mushroom is produced through utilization of polythene covers of desired size. Initially, the paddy straw is cut into 1 cm pieces and boiled in water. Further the excess water is removed, spread on the floor overnight, and then dried. This is filled into the polythene covers in layers with distribution of spawn between these layers and watered daily by sprinkling. Once mycelia are spread over paddy straw, inside polythene covers, the covers are cut open to allow the development of buttons. Later the cover is removed and water is sprinkled. The technique ensures effective usage of paddy straw, and involves use of a low cost technology in cultivation of protein rich mushroom in a space with no contamination.

Impact Generated

The firm has identified desolated villages and started mushroom production units there. In the village of Seriadhar, for instance, where people were desperate for livelihoods, Ms. Divya Rawat has brought about the change they were looking for. They have influenced farmers in Uttarakhand, hence the number of mushroom farmers in Uttarakhand has multiplied exponentially. Ms. Divya Rawat and her team have also held training sessions for people all over Uttarakhand. People from Bihar, Uttar Pradesh, Himachal Pradesh, Delhi and Punjab have also been trained. She helped people become entrepreneurs with an investment of just Rs. 50,000. Ms. Divya Rawat is hopeful that mushroom farming will eventually change the lives of villagers and farmers in Uttarakhand drastically.





terraphilic

Name of the Start-Up

**Terraphilic
Innoventures Pvt. Ltd.**

Founder Name

Mr. Ashish Banerjee

Establishment Date

28/09/2019

Address

**1309P, Sector-43,
Gurgaon - 122001, Haryana.**

Contact Number

9871132229

Email

aurick@terraphilic.in

Annual Turnover

NA

Number of Beneficiaries

5 B2B companies

Sector

Hemp Cultivation



Overview of the Start-Up

Terraphilic is the first licensed hemp cultivation company in India. It is a technology-driven sustainable start-up looking forward to green business with carbon-negative agricultural cultivation, production, manufacture and development.

Business Model

Terraphilic attempts to solve the supply chain problem with respect to industrial hemp and the medical cannabis industry in India by cultivating its own hemp crop, thereby providing high-quality, consistent products to existing hemp companies. Terraphilic currently runs on a B2B business model where it sells industrial hemp raw materials to existing or upcoming hemp start-ups in India. Terraphilic currently has 3 product lines with applications in food and cosmetic industries. The firm aims to expand its industrial hemp line to include cellulose for the paper and plastics industry in the next 2 years, and further into the medical cannabis industry in parallel.

Technology Description

Terraphilic conducts research and develops new recipes, body care, fabric yarn, paper pulp and many other industrial products, and raw materials for different industries and consumer markets. The firm has developed products like hemp milk from hemp seeds and water soluble protein isolate, with the help of scientists' team on board. Currently, it is trying to make 100 percent non-toxic, biodegradable, and recyclable hemp plastic from hemp's cellulose.

Impact Generated

Terraphilic has a strong community-oriented approach and works with the local population to bring prosperity to the region of Uttarakhand. Impact generated through Terraphilic is of 3 kinds, viz.,

- **Overall farmer income augmentation:** The firm provides dual income models to farmers through lease rentals and farmhand salaries.
- **Providing financial independence to women:** Terraphilic proudly partners with 9 women farmers on their lands, whose husband/other male members of their family work at Terraphilic production units.
- **Climate change:** Cultivation of hemp requires less water, and the crop produces more oxygen than most other plants, helping in overall reduction in carbon impact. Hemp also has unique phytoremediation properties and leaves the soil in better condition than when it was planted. This improves soil efficiency and fertility.





Way Forward

Technology is the best facilitator to bring Agriculture 4.0, the Fourth Agriculture Revolution in India. Technology-aided agriculture has the potential to improve the overall efficiency of agricultural operations and supply chains. The next ten years are expected to be extremely conducive for the growth of agri-tech startups as COVID-19 breakout has led to prospects and opportunities mushrooming across the agricultural value chains. Artificial Intelligence, combined with technologies like block chain and sophisticated data analytics, and machine learning, etc. will help bring digitization, transparency, traceability, increase crop yield, enable proper management of logistics and quality-based food trade. Shri Piyush Goyal, Minister of Commerce and Industry, on several occasions, has emphasized the need to categorically promote entrepreneurs in the drone, defense and technical textile sectors for driving the growth of the agriculture sector.

Investment in modern technology is crucial to circumvent the issues that plague the agricultural sector, in both pre and post-harvest space. Impetus by the government, investors, and the agriculture community is vital for driving the growth of agri-tech start-ups. The Government of India has been encouraging the use of technology and innovation in the agriculture through various schemes such as the Pradhan Mantri Mudra Yojana, National e-Governance Plan in Agriculture (NeGPA), Sub Mission on Agriculture Mechanization (SMAM), Rastriya Krishi Vikas Yojana (RKVY), Promotion of Agriculture Mechanization for in-situ Management of Crop Residue, National Mission for Sustainable Agriculture (NMSA), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Pradhan Mantri Fasal Bima Yojana (PMFBY), Agricultural Technological Management Agency (ATMA) Scheme, Technology Mission on Coconut (TMOC) etc. The Ministry of Micro, Small, and Medium Enterprises has been extending support to promote ideas, innovations, and research in agroindustry through schemes like Prime Minister Employment Generation Program, Agriculture Services Program for Innovation, Resilience and Extension (ASPIRE), Credit Linked Capital Subsidy for Technology Upgradation (CLCSS), etc. The Ministry of Agriculture and Farmers' Welfare (MoA&FW), under the "Innovation and Agri-Entrepreneurship Development" component of Rashtriya Krishi Vikas Yojana (RKVY), provides financial assistance to agri-entrepreneurs for strengthening the incubation ecosystem. It has also, under the Small Farmers Agribusiness Consortium (SFAC), launched a scheme for



Formation and Promotion of Farmer Producer Organizations (FPOs), in which FPOs are provided sustainable finance. The Indian Council of Agriculture Research (ICAR), an autonomous body under Department of Agricultural Research and Education (DARE), extends support for setting up of new agri-based start-ups under the project “National Agriculture Innovation Fund” (NAIF). Agrinnovate India Ltd., a Public Sector Undertaking under DARE, promotes the development and spread of Research and Development (R&D) outcomes through Intellectual Property Rights (IPR) protection, commercialization and forging partnerships both in the country and outside. The Ministry of Cooperation, under Central Sector Integrated Scheme on Agricultural Cooperation (CSISAC), provides financial support in the form of loan and subsidy for development of cooperatives. The Ministry of Rural Development (MoRD), under the “Startup Village Entrepreneurship Programme (SVEP)” component of the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM), has been helping the rural poor women set-up enterprises at the village level in non-farm sectors. National Bank for Agriculture and Rural Development (NABARD) has been implementing the Interest Subvention Scheme for Women SHGs under DAY-NRLM for Regional Rural Banks (RRBs) and Cooperative Banks in Category-I (250) districts. It has also funded an incubator “AgHub” in Hyderabad under its Rural Business Incubation Scheme to promote entrepreneurship among rural youth, women and FPOs.

The recent 2023-24 budget has provided a boost across the agriculture value chain, with announcements ranging from increased credit for the sector, investment in fisheries and focus on high-value horticulture crops to setting up of a dedicated fund for agri startups and building of digital public infrastructure. Agri-tech is projected to drive the next wave of technology-led impact by growing at a CAGR of approximately 50% over the next 5 years, addressing a USD 34 billion market by 2027 (Aventus Agritech Report, 2022). Given this scenario, Indian agri-tech startups need to take active steps to capitalize on the opportunity to transform the face of the agriculture sector by leveraging technology. They are encouraged to build an integrated agri-tech platform, and digitally transform internal business processes to adapt to regulatory and technological changes. Startups in allied sectors are also encouraged to make the most of the rapidly developing agri-tech ecosystem through a Corporate Venture Capital (CVC) Centre of Excellence (CoE).



