AI-GENIX
INTERNATIONAL PVT. LTD.
Redefining Crop Protection

AI-GENIX INTERATIONAL PVT LTD

We invent technology for crop protection and sustainable farming

"Redefining crop Protection"

Our Vision

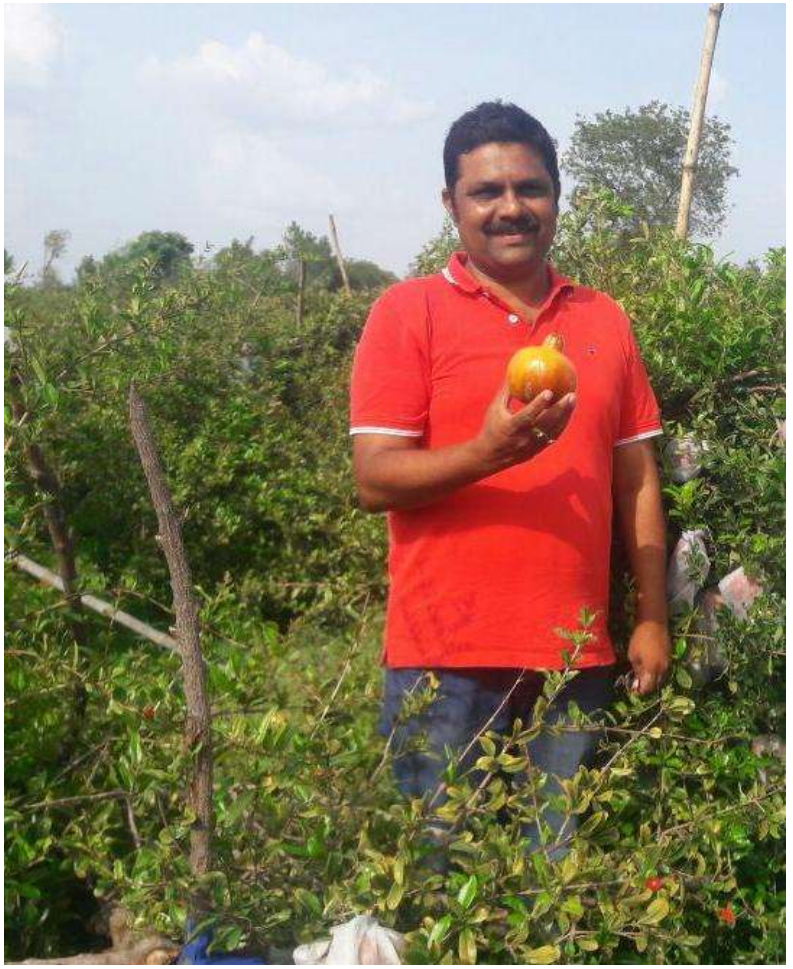
“Our Vision is to provide high tech products in the field of pest management to the farmers which are affordable, reliable and eco-friendly to a human being and coupled with a green sustainable solar energy source to improve the profitability of the farming business."

Customer Story

- Sachin Deshmukh, growing Pomegranate, Orange, Turmeric and vegetables.

- Earlier he was spending approximately 12000 INR / $165 per acre per month on crop protection.

- Now with our BraveHawk product, his expenses have dropped down to 460 INR / $ 7 per acre per month Rupees and his produce is 100% organic residue free.



5 Layered Problems

Farmers and scientists across the world are struggling to protect crops and plants from insect pests. And diseases.

1

Ban on Pesticides

Across the world governments are putting ban on toxic pesticides

2

Pesticide Resistance

Majority of insect-pests have developed resistance against pesticides

3

Pesticide Pricing

Day by day, the cost of pesticides is increasing

4

Harmful to farmers and consumers

Pesticides diminish biodiversity, disrupt nitrogen fixation, contribute to the disappearance of pollinators, threaten aquatic animals, and destroy bird and animal habitats.

5

50% of input cost on crop protection

Some growers lose almost 100% crop due to insect-pest infestation.

Pain points addressed by our solution: BraveHawk

Controls only harmful insects

Broad spectrum solution for crop protection. Control the population of 2000 plus insect-pests harmful to crops.

Crop Protection Cost Reduction by 95%

Automates the active crop protection over 365 days a year and saves big money on man power needed for protecting crops in conventional farming.

No need of pesticides

No need of spraying insecticides, and drastic reduction in the need of other pesticides includes fungicides, bactericides and virucide.

Protect all kinds of crops

Protects crops from damage caused by insects feeding and fungal, bacterial and viral diseases

99% Safe for Beneficial Insects

Our solution, BraveHawk, is highly safe for beneficial insects including predatory insects, parasitoid and nectar-pollen feeding bees like honeybees, bumble bees, carpenter bees, etc.

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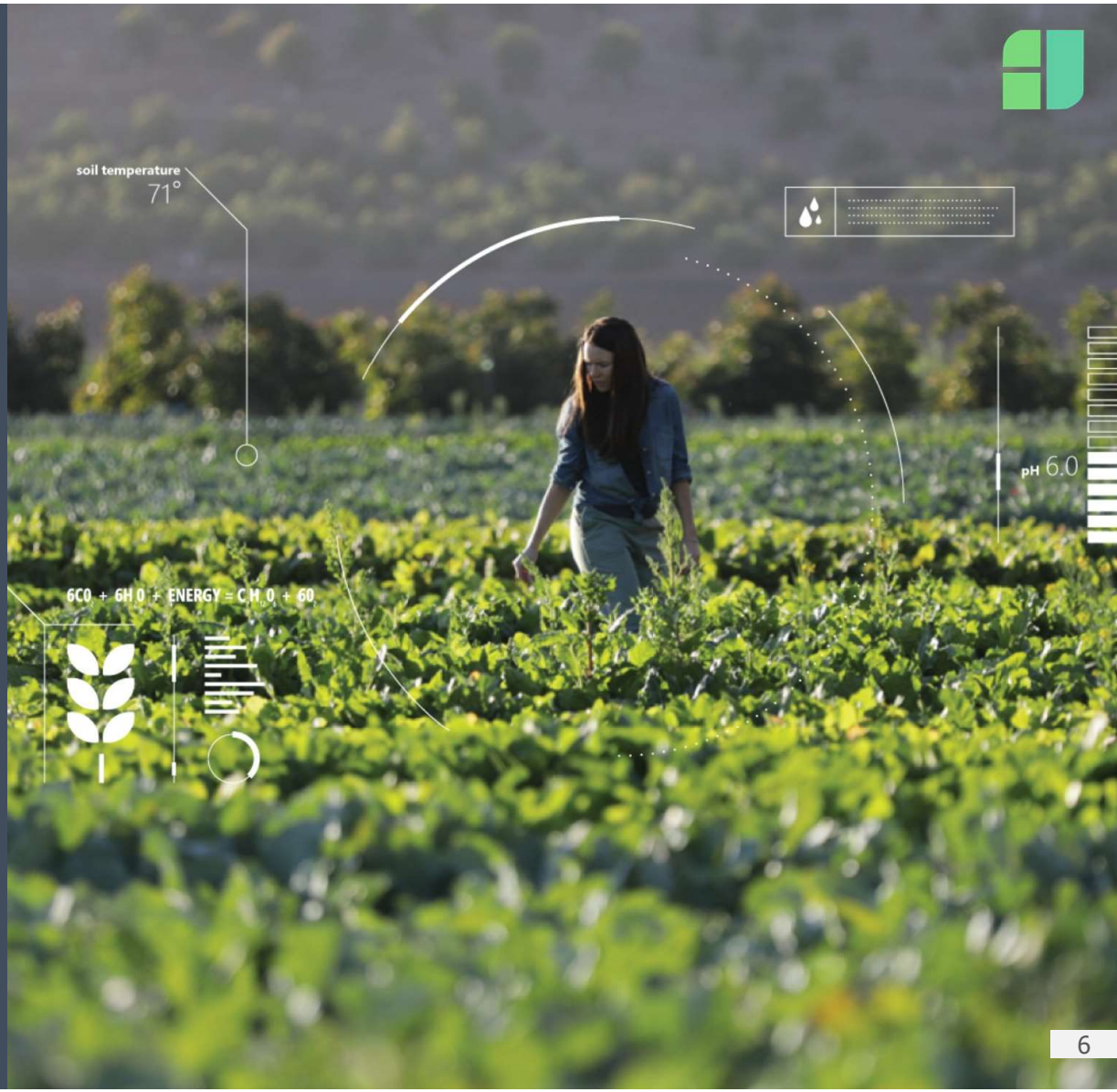
We are a business that invents technology for sustainable farming

We use Artificial Intelligence to protect crops and plants from insects pests & diseases without pesticides.



Unique Selling Proposition

- We have developed a unique primary type of Artificially Intelligent Reactive machine.
- It releases multiple types of signals including visual patterns, light frequencies, acoustic signals, vibratory (touch) signals etc. to attract and aggregate 2,000+ harmful insects simultaneously. It generates an alarm signal to threaten and repel beneficial insects in order to safeguard beneficial insects.
- The Solution is tested and evaluated by in ICAR-KVK, Karnataka State Agriculture and Horticulture departments.
- We applied for a patent in January 2020.

How It Works

Harmful Insect (Omnivorous and Herbivorous)

ATTRACT

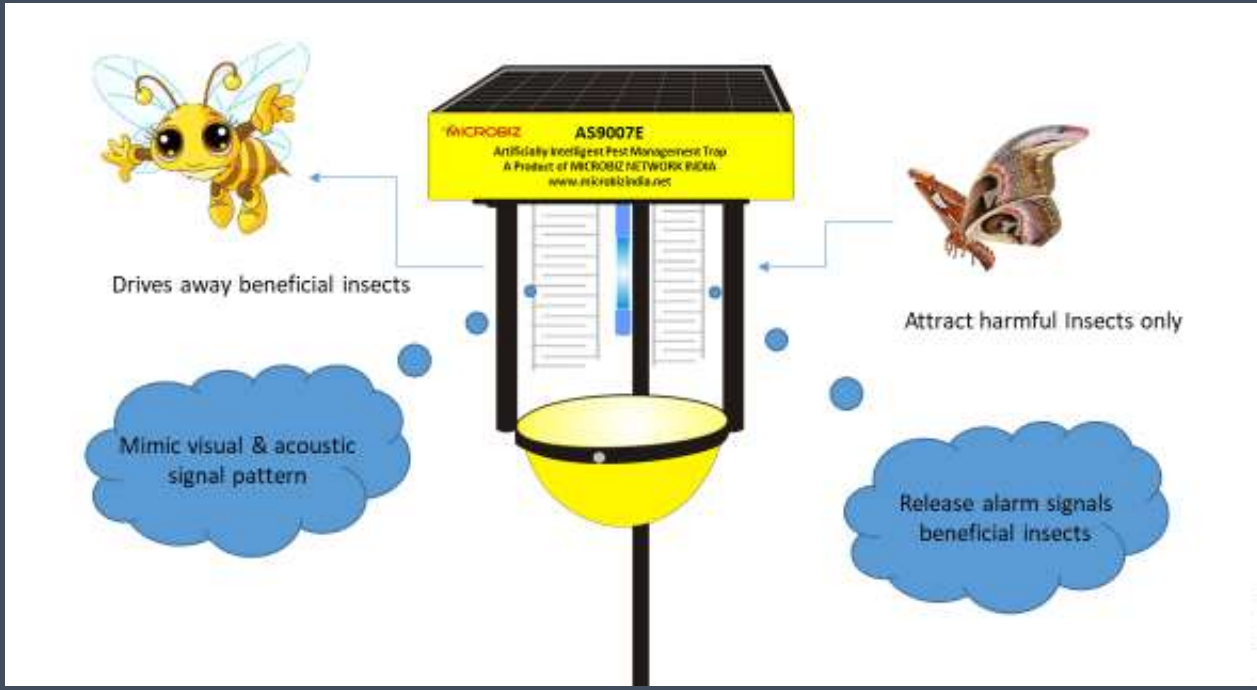
Beneficial Insects (Carnivorous)

REPEL

1. BraveHawk: Reactive AI Crop Protection Device without Machine Learning Ability and Memory. Broad Spectrum Device.

2. SmartHawk: Limited Memory AI Crop Protection Device without Machine Learning Ability. Broad Spectrum Device.

3. eBionic: Bioelectronics crop protection device with olfactory signaling communication system. Narrow Spectrum Device.



Technologies

BraveHawk, SmartHawk and eBionic Crop Protection Technologies

Product/Service

BraveHawk Artificial Intelligence Pest Management. Devices for any

1. Devices can be useful in all kinds of crops.
2. Zero use chemical pesticides.
3. Safe on farmer friendly insects, viz. Lady beetles, lacewings etc.
4. Residues free produce, makes your farm produce eligible for export market.
5. Saves huge amount of money on crop protection.
6. One device covers 1 acre to 2.5 acres of farm land (145 - 190 feet radial distance coverage).
7. Automatic operation, doesn't require human intervention on a day-to-day basis, saves huge cost on labor charges.
8. Increase farmer-friendly insect population.
9. Operates on solar power, no need of electric power and warring.
10. Increase yield by 40%.
11. Life of products are 6-7 years with and without maintenance.
12. Cost starts from **$** 450 to $1500.

Farmers' Benefits

1

Reduction in Cost

Drastically reduces cost incurred on crop protection compare conventional crop protection solution.

2

Increased Yield

Our crop protection solution help to increase the yield by 30% to 40%.

3

Increased Earnings by 300%

Our crop protection solution increase the farmer's earnings threefold by reducing cost and increasing yield.

4

Healthy food

Toxic residue free safe and healthy food production for wellbeing of humans and animals.

5

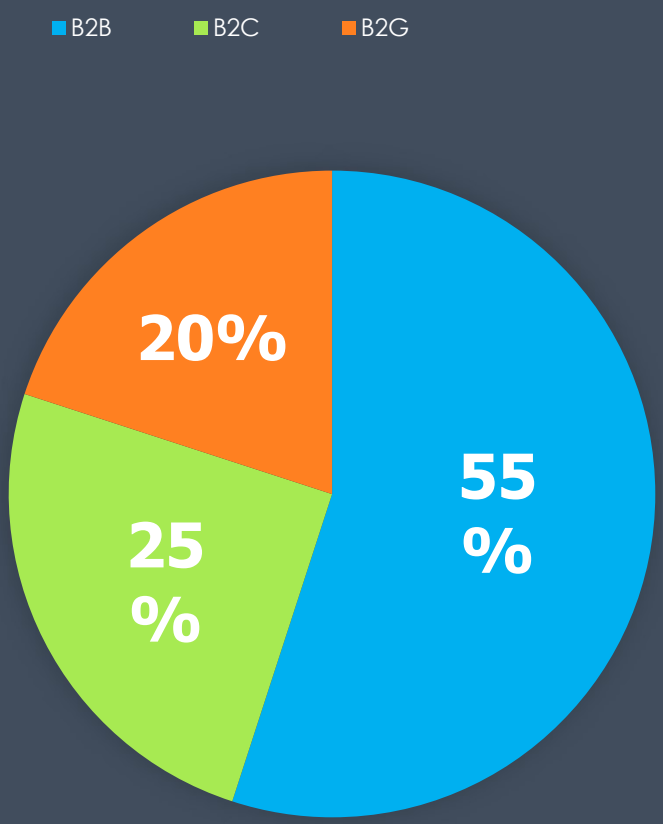
No Health Hazards

Doesn't make use of toxic substances for crop protection and zero down chance of toxic accidents.

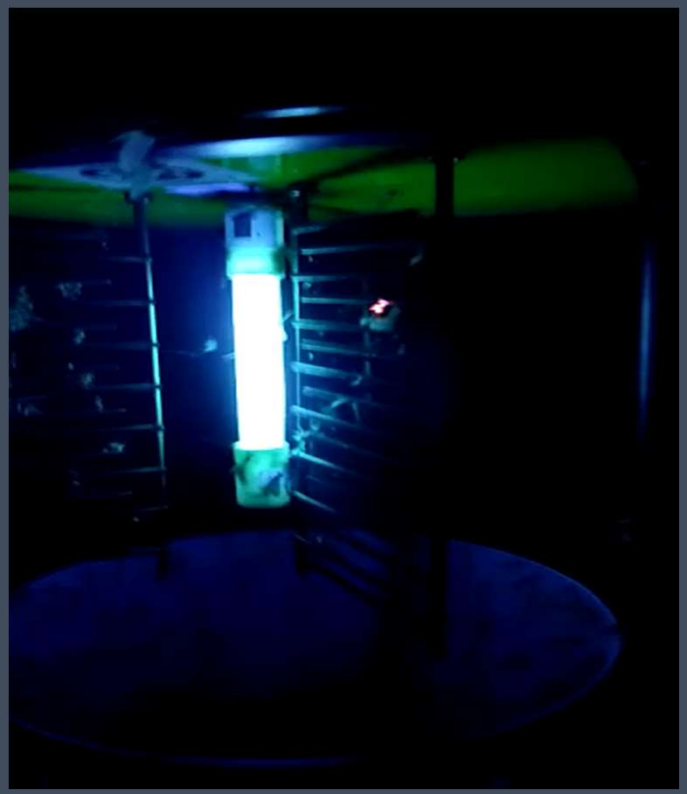
Our Clients

1. Agriculture sector:
   Horticulture, Vegetables, Floriculture, Plantation
2. Resorts, Hotels
3. Hydroponics Farming
4. Seed Warehouse
5. Aquaculture
6. Municipal Corporation
7. Poultry Farms
8. Dairy Farmers

Revenue Model



Device in killing mode (video)



Current Traction:

BraveHawk Artificial Intelligence Pest Management Devices

1

Self Funded

2

Sold 4000+ devices across 8 countries without acquisition cost in domestic & International Market

3

2 crore (2014 - 2019) Through MVP test vehicle company.

4

Customer retention rate 70%

5

From 2001 to 2020 we have spent 3 crore INR / US $ 405000 for research & development activities.

Marketing Strategy

We focus on customer relationship-building and fostering loyalty.

Effective use of social media network (such as Facebook, LinkedIn, and WhatsApp) enables us to build brand value through communication and marketing.

Market Potential

Global Market

Global IPM crop protection market to grow **USD 190 billion by 2025**, growing at a CAGR of 5.8%

Indian Market

The Indian crop protection market reached a value of **INR 238 Billion in 2020** and it is projected to grow at a CAGR of 4.2%during the forecast period (2020-2025).

(INR 23,800 Cr. = $3.21Billion)

Competition

High cost

Organic Pesticides
Biochemical Pesticides

Solar Light Trap
Colored Sticky Traps
Pheromone Based Traps

Inefficient

Efficient

Synthetic Chemical Pesticides
Syngenta, Bayer, UPL

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Highly Efficient, Ecofriendly, Cost Effective & Affordable.

Low cost

Business Model Canvas

Key Partners

- Strategic alliance with three SME's engaged in manufacturing and distribution of agri-inputs through combined 20,000 outlets.
- Multiple Vendors
- Strategic alliance with agronomic institute

Key Activities

- R & D
- Production, Sales, Marketing & Distribution

Key Resources

- Patented Technology
- Scientist & Inventors
- Product Developers

Value

- We protect crops and plants without use of pesticides
- We help growers to produce pesticide residue free food
- We help grower to increase yield by 30% - 40% with available natural resources.

Relationship

- Long term
- Personal assistance
- Co-Creation

Channels

There are people who have a significant number.

Segments

- Horticulture Crop Growers
- Plantation Crop Growers
- Floriculture Crop Growers
- Cash Crop Growers
- Hotels & Resort
- Governments

Cost Structures

- COGS: 43.5%, R&D: 2%, Marketing: 14%, Admin: 3%, Salaries: 2.5%, Capex: 2%, Profit: 33%

Revenue Strems

- Profit income from sales
- Income from crop advisory services.

Future Projections

On-boarded three corporate non-exclusive distribution partners; have 20,000 outlets combined; on PAN India basis

Process of on-boarding three more companies for domestic market and three companies for international market is in progress.

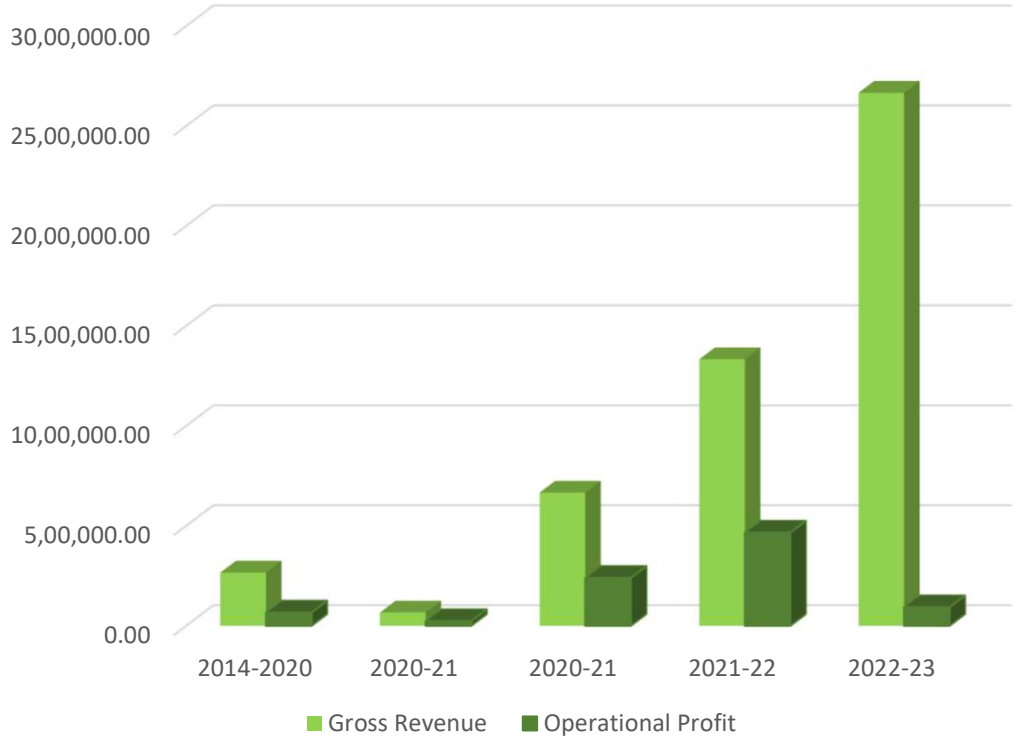
Sales Network

Leveraging non-traditional resources to support sales growth

Forecast (Organic Growth Without Fund Raise)

Forecasting for success

Fiscal Year	Gross Revenue in US$	Operational Profit in US$ EBTD
2014-2021	266,500	66,600
2021-2022	66,600	24,000
2021-2022	666,500	240,000
2022-2023	1,333,300	466,600
2023-2024	2,666,600	933,300



Asks

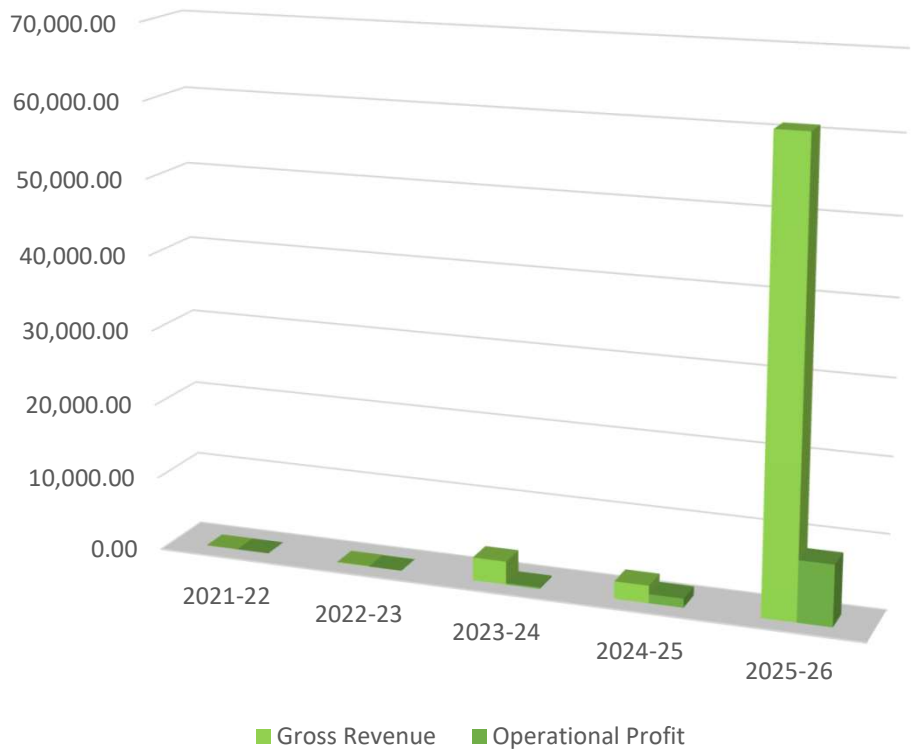
We are looking forward to raise fund USD 3 Million

- For scaling up the business in domestic & International market.
- For scaling up the manufacturing capacity.

Forecast with Fund Raise

Forecasting for success

Fiscal Year	Gross Revenue in US$ Million	Operational Profit in US$ Million EBTD
2021-2022	8.20	1.98
2022-2023	61.60	16.60
2023-2024	3085.60	194.79
2024-2025	2321.46	1207.59
2025-2026	60938.33	8125.11



Funding Requirements

We are looking forward to fundraising US$3 Million for

1

Goal No 1

Scale the business in domestic & International markets

2

Goal No 2

Scale our manufacturing capacity

Fund Utilization

Scaling Up Business: USD 1.8 Million

- Hiring CXO level Team
- Hiring Sales, Marketing Team for India Market and Foreign Market (USA, MEA, Malaysia, Indonesia, Africa)
- Setting up PAN India distribution network

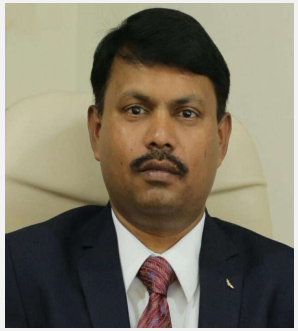
Scaling Up Manufacturing Capacity: USD 1.2 Million

- **Plant & Machinery**

Highly Qualified and Experienced Founders/Active Advisors

Shahnaz
FOUNDER & CEO,
MSc Microbiology
AI-GENIX INTERNATIONAL PVT LTD
Role: R&D, Sales & Marketing, Administration, Finance, Legal.

Dr Syed Shakir Ali
Senior Scientist and Head at Krishi Vigyan Kendra, Mahbubnagar, Telangana



Khalil
CO-FOUNDER & CTO
B.E. Computer Engg. & Industrial Electronics Engg.
AI-GENIX INTERNATIONAL PVT LTD.
Role: R&D, Business development, Production.

Bhubesh Kumar
Director-Food & Agri Research and Innovation Circle of Hyderabad (RICH), Govt of Telangana

Recognition

2016 - Top Hundred Projects in India, Skoch Foundation, Delhi

2019 – Best Woman Entrepreneur Award, IIT Hyderabad

2019 - Best Social Enterprise Award, IIT Hyderabad

2020 - Promising Entrepreneur Award, AABI, China

Our Startup is Incubated and Accelerated in

ATAL INCUBATION CENTRE
BANASTHALI VIDYAPITH
Supported by Atal Innovation Mission, NITI Aayog

wep

LABS Indigram
Incubate | Accelerate

The Land Accelerator
Inspiring businesses to restore farms and forests

NITI Aayog

UNDP

ACTION FOR INDIA

i-TIC Foundation
IIT Hyderabad

aisea

Our startup Brings Social/ Environmental/ Climate Impact

1

Our ground-breaking crop protection technologies are transforming dynamics of the farming industry globally, enable millions of farmers to produce high-quality, toxic pesticide residue-free food.

2

Our technology helps to make soil, air, water, food free from toxic chemical contamination.

3

Our technology creates Impact on climate change, global warming and food security issues.

Challenges

1. Customer Acquisition from domestic and International markets.

2. Keeping sufficient inventory of components for manufacturing.

3. Working capital required to scale up business.

4. Due to Covid-19 pandemic issue our business affected drastically.

5. Expenses on patent filling in foreign market.

6. Lack of professional experts in different functions (Finance, Marketing, Sales, Business Development, etc.)

Support

- Support required for product validation from ICRISAT or government.
- Agriculture and Horticulture university.
- Grants required for land, plant, and machineries.
- Grants required for further R&D activities.
- Support required to promote and sale our products through ministry of agriculture.
- Support required to connect with corporate customers, FPOs, Farming NGOs, etc.

Germination of business Idea

1. Our family is involved in the farming business. While cultivating various crops in our farm we faced acute insect-pests and synthetic pesticides toxicity issues with our farm, farm workers and dairy animals. These issues made us to think over how to solve insect-pest management issues without use of toxic pesticides. We started working on finding alternative solutions to toxic pesticides available in the market.

2. We realized that there is no viable and efficient solution available in the market for insect-pest management.

3. We duo started working on environment friendly, nontoxic, agriculture pest management solution to serve the most deprived global farming community by reducing their input cost of crop protection and improving their living condition by minimizing their exposure to highly toxic chemicals.

Startup Journey:

- In the year 2001, we have started a study on entomology and research on the insect's behavioral response. down the line, in a few years, we developed a different kind of communication signals includes vision, olfactory, acoustic, touch and sensation to communicate with insects and alter their behavior in response to these communication signals.

- In the process of development of artificially intelligent insect communication technology, we built multiple prototypes and conducted trials in the laboratory and later on in the actual crop field in different geographical areas and multiple crops.

- After successful field trials over almost five years, we duo decided to make this technology and products available to the farmers.

- To test the minimum viability of the product, we duo decided to establish a quick and lean business set-up named Microbiz Network India as a single proprietorship company in the year 2014.

- From the year 2014 to till 2019 we sold approx. 3500+ plus devices in Indian and international market to generate the sales revenue of worth 2 Crore. At this stage, we realized that now the product is well accepted by the farmers, crop protection experts, and agricultural scientists across the world.

- To continue this business professionally and start mass production and distribution of these products across the globe, we established AI-GENIX INTERNATIONAL PVT LTD in the year 2019.