

INSPRO SCIENCE LIMITED (INSPRO) is an innovative high-tech social enterprise that aims to integrate insect-based bioconversion, industrial automation, climate control, digital twins, and AI technologies to provide a set of standardized and modularized turn-key solutions to effectively solve social issues such as the recycling of organic wastes and the shortage of protein supply.

ins PROTEIN

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 SUSTAINABLE DEVELOPMENT GOALS



www.insprotein.com
INSPRO SCIENCE LIMITED

A black and white photograph of a fly, likely a housefly, perched on a textured surface. The fly is shown in profile, facing left. Its long, segmented antennae are prominent. The background is a soft-focus, light-colored surface. Overlaid on the image is the text "RECYCLE PROTEIN" in a bold, green, sans-serif font.

RECYCLE PROTEIN



N FOR THE WORLD

1 SOCIAL CHALLENGES



Global Community

The global population continues to increase. The shortage of protein is becoming increasingly severe.
How to resolve this dilemma?



Food Safety

Many countries rely on imports for animal protein raw materials.
How to replace imports and reduce feed costs?



Carbon Reduction

Low-value organic waste treatment capacity is insufficient and costs are high.
How to achieve low-carbon emission resources recycling?



Innovative Industrialized Insect-based Bioconversion System

Leveraging GoogolTech's Leading Industrial Automation and industrial Internet of Things technologies, we can rapidly replicate and deploy our modularized and factory-prefabricated turn-key solutions globally. With our solutions, it is able to realize the green recycling of organic wastes, and produce sustainable economic benefits.



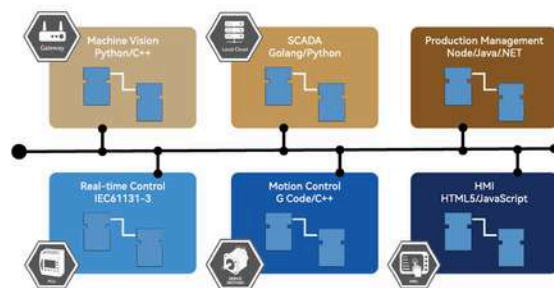
Innovative Insect Biotechnology and Operation Management Team

Our team has more than 10 years of practical experiences on microbial pre-treatment technology, superior breeding (not genetic modification), stable and large-scale egg production, industrialized rearing, nutrition demand analysis, disease prevention, and product deep processing.

Internationalized Product Sales Channels

Our team has more than 10 years of brand and market management experiences. Meanwhile, our company has FDA, ISO 22000, GMP+, and SUCI PURE certified, complying with EU, US, and Halal standards, with which we can sell Black Soldier Fly Larvae (BSFL) as feed and frass as fertilizer.

2 CORE COMPETENCES



Open Automation Systems

Using the cutting-edge IEC 61499 international standard to deeply integrate OT, CT, and IT technologies to realize the closed-loop of industrial Internet and edge computing.

Edge-Cloud Collaborative Computing

Leveraging heterogeneous edge-cloud computing architecture to support INSPRO's automation systems' rapid and iterative development.

High-Speed P2P Ring Networking

The gLink fieldbus technology is well applied to realize high-speed interconnection, real-time response, and synchronous control among field devices.

3 INDUSTRIALIZED BSF BIOCONVERSION SYSTEM

Automated Lifecycle Management

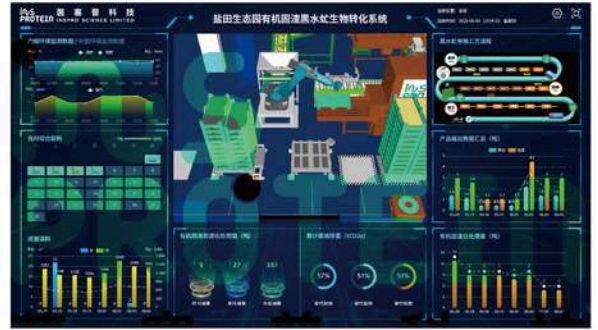
Using digital twin technology to perform modeling and dynamic simulation of the system, to realize dynamic lifecycle management. As a result, the system can automatically distribute, feed, and harvest the larvae without human intervention.

Independent Closed Structure

By adopting independent closed structure design and rearing BSF in group according to their growth characteristics, it is able to effectively shield the adverse effects of external changes on the rearing environment. Moreover, the full thermal insulation and vertical farming technology can effectively expand the rearing area.

Automated Climate Control

Based on BSF larvae's characteristics, by timely adjusting the climate controller according to lighting, temperature, humidity, VOC, and so on in rearing area, it is able to precisely maintain the optimal growth condition for BSF automatically.



Harmless Treatment

In order to meet the environmental protection requirements, harmless treatments are conducted on the BSF larvae bioconversion module. In particular, a fresh air ventilation system is set up to uniformly collect, purify, and treat the exhaust gases generated in the rearing process, to ensure BSF larvae's continuous and stable growth.

Government Regulation on Data

The government can real-time monitor the data of environmental emissions, food waste reduction amount, and the resource utilization rate of organic waste.

Carbon Footprint Accounting

The dynamic carbon footprint accounting model built for the industrialized BSF bioconversion process, helping to reduce carbon emissions and achieve sustainable development.

4 OVERALL ADVANTAGES OF INDUSTRIALIZED SYSTEM



Modularized Short Construction Period

After foundation construction, it usually takes only 3-4 months to complete installation and commissioning of the system.

Vertical Structure Small Footprint

Our vertical rearing method can significantly save land area and reduce construction costs compared to traditional ground rearing methods, increasing rearing capacity per unit 10X.

Closed Type No Secondary Pollution

Our industrialized BSF bioconversion system adopts fully closed management, where no secondary pollution will be caused.

Automated Safe & Stable

The fully automated BSF bioconversion system can significantly reduce various costs and make the rearing process much safer and stabler.

Data-driven Real-time & Synchronized

Our visualization system displays real-time rearing data and seamlessly integrates with government platforms to meet many regulatory requirements.

5 INSPRO CIRCULAR ECONOMY DEMONSTRATION PROJECTS

● Shenzhen Project

INSPRO is in cooperation with Shenzhen Energy Environmental Park and equipped with a fully automated BSF rearing system. The daily processing capacity of organic waste is **150 tons municipal food waste**, which 10% solid food waste can be converted into **3 tons of high-quality insect-based protein**, effectively reducing 5 tons carbon emissions caused by waste landfill/incineration per day. A 13-year cooperation period has been signed with us.



Shenzhen Energy Environmental Park



Fully Automated BSF Rearing System



Data Center

● Malaysia Project

VBM Bioconversion Malaysia is affiliated with INSPRO, the plant in Malaysia adheres to the highest industrial standards and the most stringent regulation requirements ensuring a consistent, premium product, entomeal (insectmeal) and entolipid (insect oil) with full traceability from black soldier fly eggs to finished products.

The facility has undergone and passed ISO22000 and GMP+ certifications. Farmed with zero-waste methods, the larvae are freshly processed after harvest ensuring premium quality, nutritious, safe and sustainable alternative protein and functional ingredients in pet food and animal feed industries.



VBM Bioconversion Plant



Wet Processing Line - Purer Products, Higher Quality



High-standard Laboratory

6 OWN BRANDS & CERTIFICATIONS



U.S. FDA Registration

We have completed the FDA registration, which allows our products to enter the pet food chain in the United States.

Export Qualification

We are the first company with full qualification to export microwave dried BSFL overseas in Yantian, China. We are establishing the export standards for our governments.



Amazon Best Sellers

Our main product has been ranked first in category reviews on Amazon with top three sales, far surpassing domestic brands in the United States.

Quality Assurance

We have implemented strict quality control and management standards on insect sources, processing procedures, and personnel operations to ensure our export products' outstanding quality.



On May 17th, 2021, the CCTV program "Focus Interview - Pursuing Dreams in the Greater Bay Area" broadcasted an exclusive interview with Elvis Yu, the founder & CEO of INSPRO.

In 2022, Phoenix News aired an interview with Elvis Yu in the documentary "Hong Kong People's Entrepreneurship in the North 5". INSPRO is committed to providing sustainable protein for the world.



7 WIDESPREAD MEDIA COVERAGE



Hong Kong SAR Government
Greater Bay Area Express
Episode 3 - "Insects from Organics"





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FOR THE WORLD**



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