

# HiiLSE DRONE



## Malaysia's Sovereign Architect of AI Drone Intelligence

HiiLSE Global Sdn. Bhd. | Civilisational Intelligence in Motion

## THE MISSION

Build a full-spectrum  
drone ecosystem.

From procurement to  
IP-driven manufacturing,  
empowering youth  
through training,  
certification, and  
entrepreneurial  
scaling across ASEAN.

## THE VISION

Restore indigenous  
intelligence.

Institutionalise Tamil-  
origin mathematical  
frameworks in  
national R&D, and  
activate sovereign  
manufacturing to lead  
the AI drone  
innovation frontier.

## THE LEGACY

A civilisational signal.

Every drone deployed  
and every partnership  
activated is a  
declaration of  
sovereignty, built on  
regional transformation  
and institutional  
resilience.

# Activating Sovereign Manufacturing and IR4.0 Infrastructure



HiLSE Drone leads Southeast Asia's drone manufacturing frontier. Our proprietary assembly lines deliver mission-ready UAVs and UGVs, subjected to rigorous thermal, ultrasonic, and flight stability testing before global export.

## SCALE

29,000 sq ft & 9,000 sq ft  
IR4.0 facilities at TF UTeM.

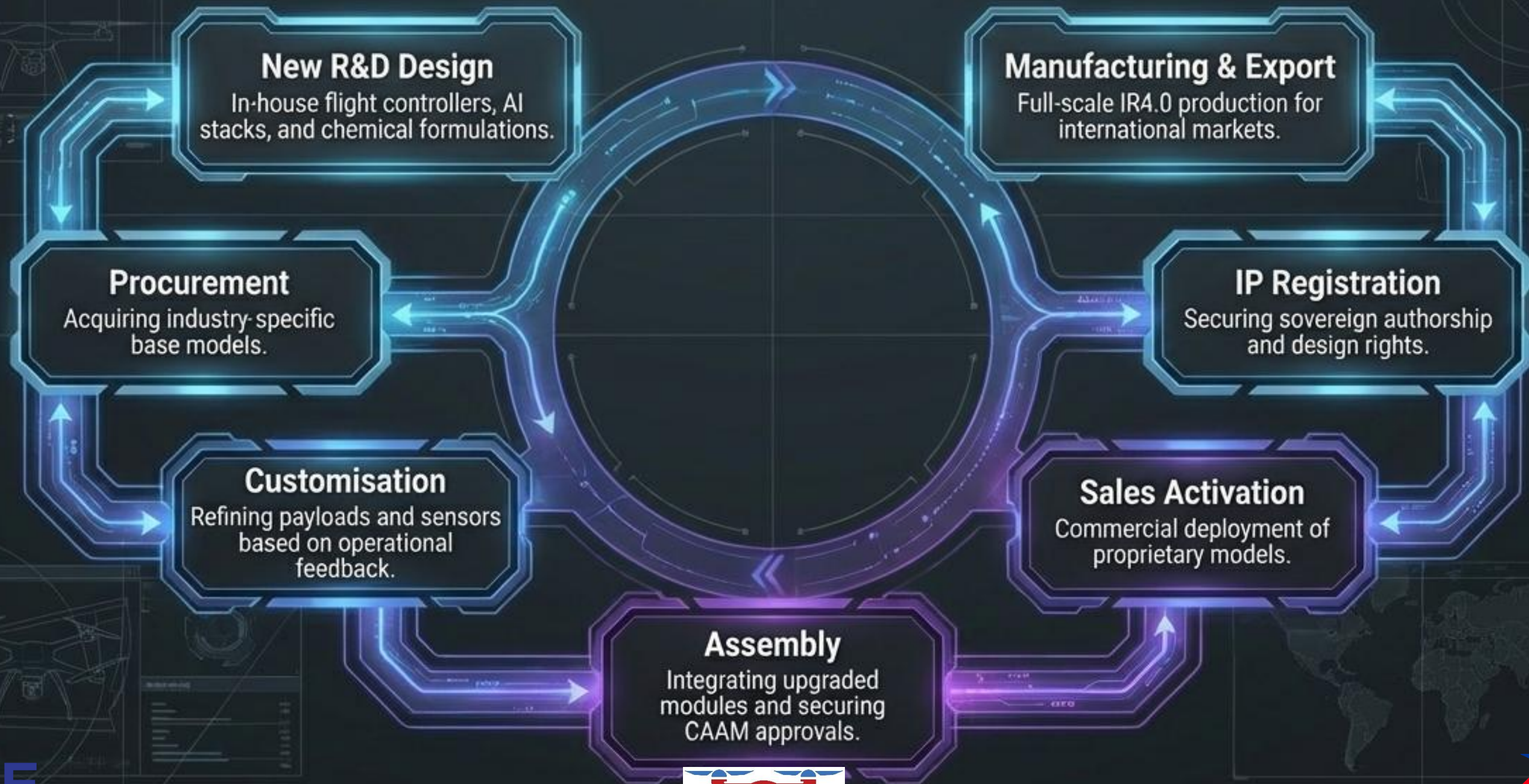
## SOVEREIGNTY

30% to 100% Malaysian  
indigenous component  
integration.

## COMPLIANCE

Full alignment with SIRIM,  
DOSH, NIOSH, JUPEM,  
CAAM, and MITI standards.

# The Core Product Line Development Pathway



# The Commercial and Industrial UAV Fleet



## Logistics & Delivery

Customised delivery drones handling extreme payloads from 10kg up to 3,000kg. Temperature-controlled and shock-resistant for remote access.



## Infrastructure Maintenance

Cleaning drones integrated with proprietary, eco-safe MaxMedia Lab chemical formulations for solar panels, glass, and steel facades.



## Precision Agriculture

Seeding, spraying, and crop analytics drones for high-yield land stewardship.



## AI Command Vehicles

Mobile AI Firefighter Van & Truck systems for ground-based, AI-integrated rapid deployment and continuous drone coordination.

# The National and International Drone Restoration Authority

## The Engineering



### Surpassing OEM Standards

- Component-level expertise in flight controllers, PCBs (ARM, STM32), gimbals, RF connectivity, and custom payload balancing.

## The Ecosystem

Activating Multi-Brand Repair Sovereignty under MDCoCI.

### Supported Enterprise Fleets

DJI, Autel Robotics, Parrot, Yuneec, Skydio.

### Supported Tactical Fleets

Teledyne FLIR, Quantum Systems, Microdrones, Lockheed Martin, Thales.

**Outcome:** Damaged fleets are absorbed, revived, and certified flight-ready with enhanced intelligence and structural integrity.

# Tactical Defence and Airborne Security

## Maximum Endurance:

Up to 27 hours continuous flight.

## Operational Range:

Over 1,850 km (1,000+ nautical miles).

## Altitude Ceiling:

50,000 ft (sub-zero operational capability).

## Take-Off / Payload:

165 kg MTOW with up to 1,700 kg payload capacity (Hellfire, JDAMs).



**Core Capabilities:** DDOAF (Direction of Own Artillery Fire), Intelligence, Surveillance, Reconnaissance (ISR), and real-time terrain mapping in GPS-denied combat zones.

# ONYX & MADDOS Counter-Drone Architectures

Mobile Anti-Drone Defence & Observation Systems protecting critical infrastructure, airports, and borders from espionage and contraband transport

## Detection Range

Up to 80 km  
continuous coverage



## Threat Neutralisation

Real-time ALL frequency  
monitoring and multi-  
frequency jamming



## Processing Power

Up to 6THz/s sweep  
speed



## AI Targeting

3D multi-functional  
flight pass view tracking  
3G, 4G, and 5G drones,  
including operator  
location tracing



# Next-Generation Intelligence and UTM Architecture

**Comprehensive AI Data Processing.**  
Generates predictive analytics, formats multi-agency compliance dashboards, and categorises drone-collected data precisely by sector requirements.

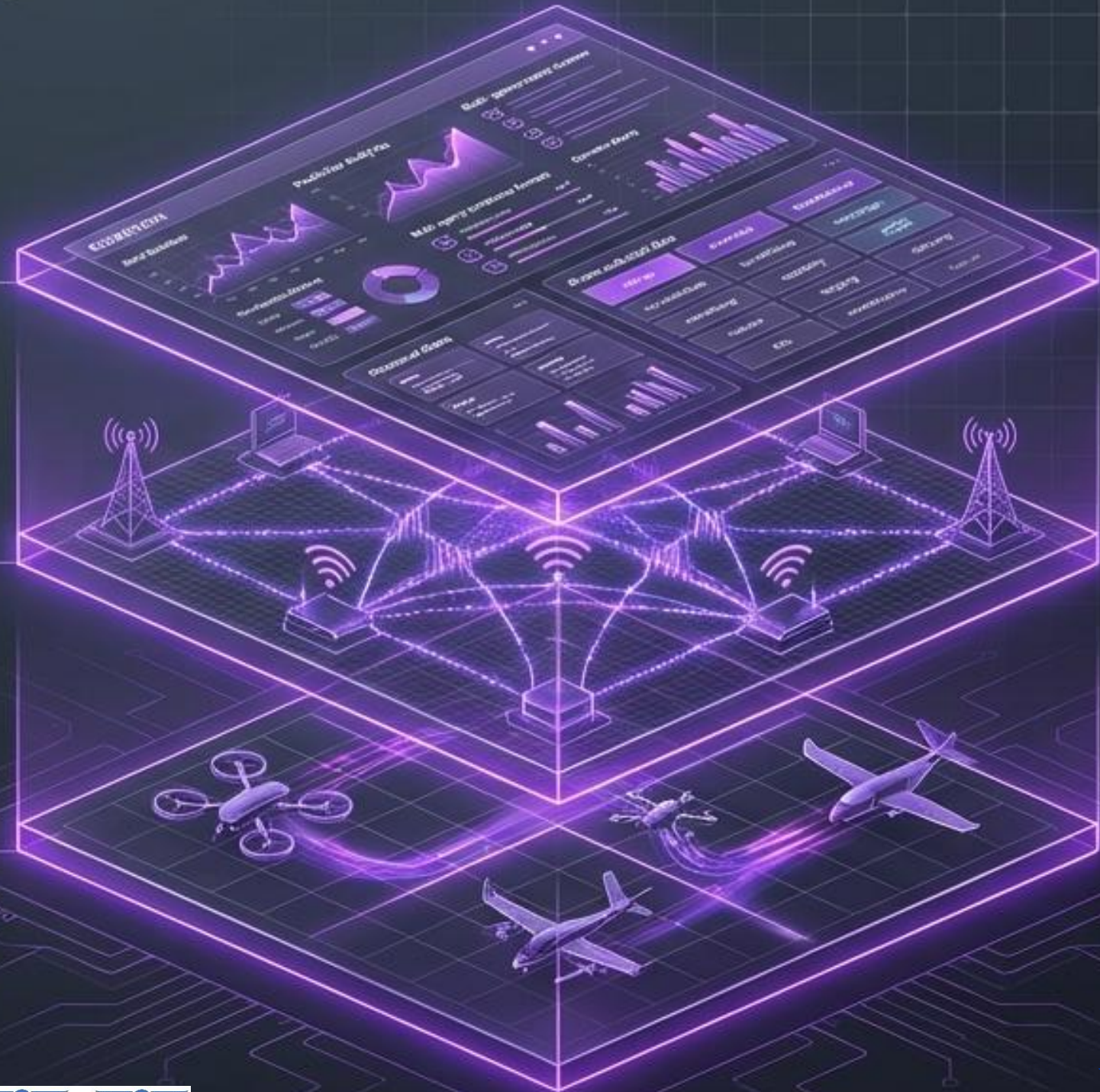
**Unmanned Traffic Management (UTM) systems** enabling regulatory-compliant Beyond Visual Line of Sight (BVLOS) operations and airspace deconfliction.

**Advanced Upgraded Flight Controllers** executing autonomous decision-making and adaptive flight paths.

COGNITION

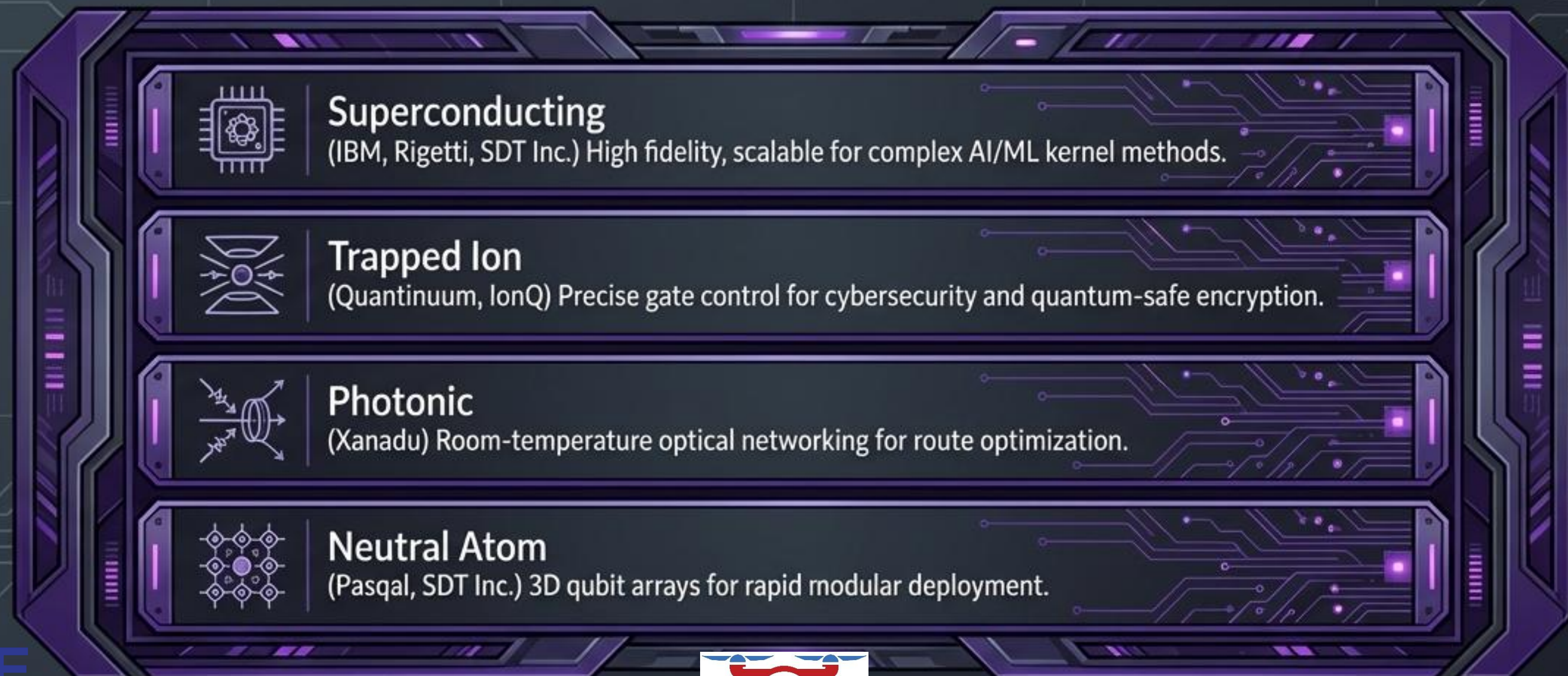
NETWORK

EXECUTION

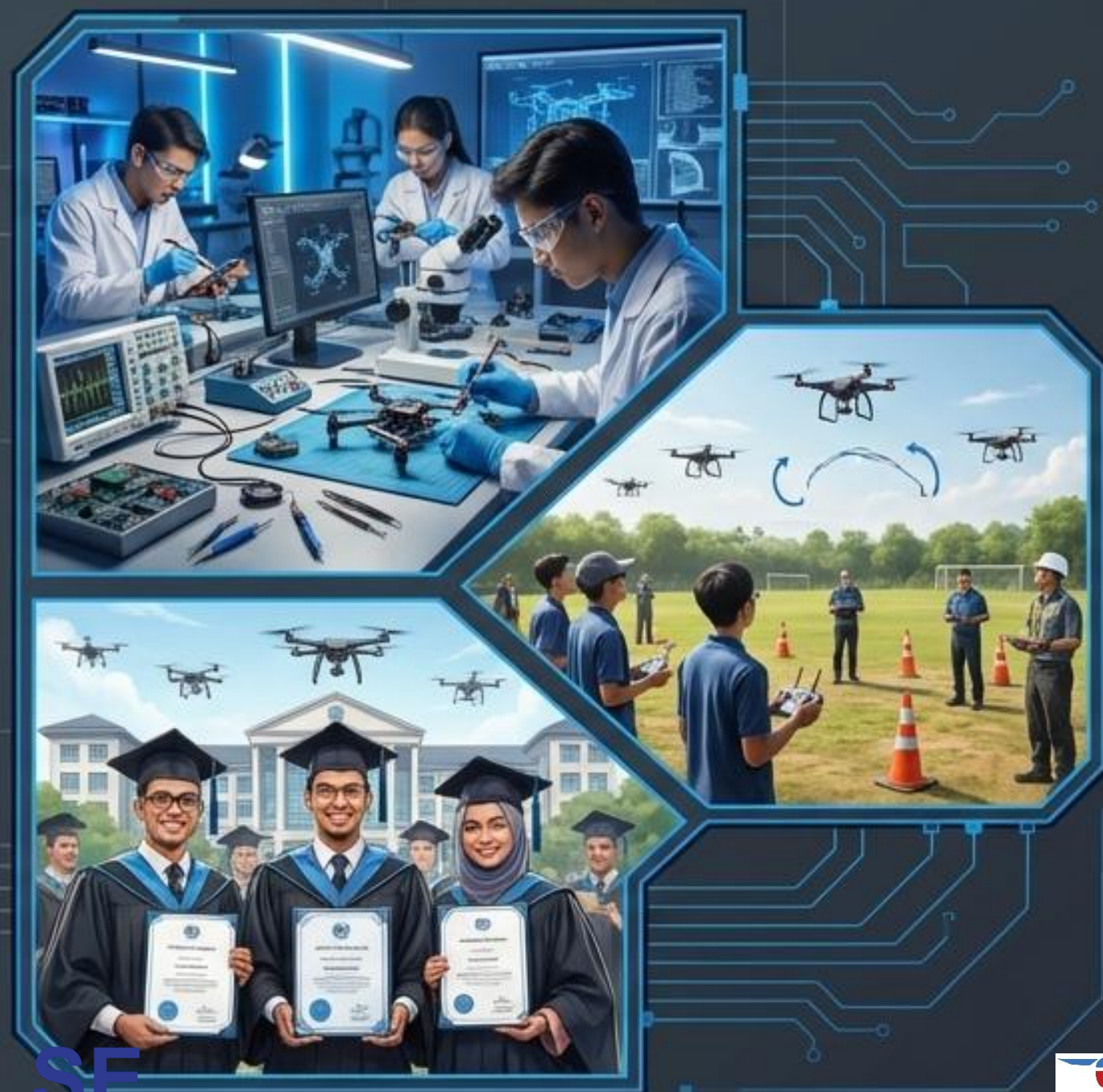


# The Quantum Horizon: MQCI Advisory and QPU Integration

HiiLSE Drone Malaysia serves as the Advisory Member of the Malaysia Quantum Computing Institute (MQCI), bridging the gap between classical drone telemetry and quantum-enhanced AI simulation, logistics, and cryptography.



# Activating Human Capital Through Certified Drone Labs



## The STEMFlight Series Pipeline

### Professionals

CAAM-aligned Remote Pilot Certificate of Competency (RCoC-B) and MDCoCI joint certifications.

### Universities (TF UTeM)

AI-integrated flight systems and embedded coding (ARM University Program).

### TVET Institutes

Technical mastery, PCB maintenance, and assembly.

### Schools

Introductory drone literacy and safety protocols.

**Core Impact:** Delivering modular, multilingual IR4.0 curricula to build a highly skilled, sovereign drone workforce.

# The Visionary Board



**Elanggovan Thanggavilo**  
Founder & CIO

Civilisational Architect.



UN-UNESCO Public-Private  
Mentor



Architect of Tamil-Origin AI  
Intelligence



QPU/GPU Integration Pioneer



**Mohd Saharin Bin Zakaria**  
Cofounder & CEO

Sovereign Manufacturing Strategist.



10 Years Japan Automotive  
Engineering



TF UTeM Industrial Architect



CAAM Regulatory Alignment  
Lead



**Shanmugam S. Thanggavilo**  
Founder & CTO

Sovereign Engineering Master.



ARM Microprocessor Designer



QPU Simulation Developer



Advanced Telemetry & Flight  
Controller Architect

# Strategic and Global Execution Leaders



**Datuk Hj Abdul  
Rahim Hj Abdullah**

**Chief Global Officer**

Entrepreneurship & Commercialisation. Bridging ASEAN innovation with Middle Eastern capital and diplomatic ecosystems.



**Dr. Bryan Lee  
Boon Kiang**

**Chief Marketing Officer**

Digital Branding & Sales Diplomacy. Mandarin-fluent blockchain expert driving cross-border onboarding.



**Dr. Sambasivam  
Krishnan**

Financial Structuring & Asset Mobilisation. MSC property transaction expert enabling sovereign infrastructure scaling.



**Richard A Zaviar**

**Chief Business Officer**

Global Partnerships. Aligning sovereign innovation with multinational R&D and regulatory harmonisation.

# Defence, Field, and Technical Architects



**Syed Alwi Al-Habsyi**  
Chief Technical Officer -  
Hardware

Master of CAD, thermodynamics,  
and modular fabrication.



**Muhammad Helmi bin  
Md Rashid**  
Chief Anti-Drone Officer

ONYX Founder. Expert in RF signal  
interception and radar interfacing.

**Zainudin Saman**

Chief Specialist, Agricultural UAV

25+ years in GIS, precision agriculture,  
and geospatial intelligence.



**Vadivelan Veerasingam**  
Chief Project Officer

Navy Reserve Officer and RCoCB  
Drone Pilot leading youth  
onboarding and grant activation.



**Eswaran Raman**  
Chief Field Deployment

Manages complex 9-role expert  
teams for heavy-duty industrial site  
operations.

# A Global Footprint, A Sovereign Legacy



**Human Capital:**  
360+ elite team  
members.



**Group Strength:**  
86 global assets  
across 10 cities.



**Ecosystem:**  
15+ government  
compliances,  
serving 58 MNCs.



## **BERNAMA & MIDA**

HiLSE teams up with  
Garuda Aerospace to set up  
RM65 million drone plant,  
creating 3,000 jobs.

## **The Indian EXPRESS**

Garuda Aerospace to set  
up drone factory in  
Malaysia with HiLSE  
Global.

