
Board of Investments Engagement Brief

Sibacus BSA-CIM Platform & The SEED Program

For: DTI–Board of Investments · Prepared by: Sibacus Technologies / DotOS Holdings Pte. Ltd.

The Opportunity in One Sentence

The Philippines can become ASEAN’s hub for Physical AI product design — capturing semiconductor design margins (30–50%) instead of assembly margins (5–10%) — through a ₱250M ecosystem program anchored by Sibacus’s licensable compute-in-memory IP.

Why BOI Should Care

The Philippines’ Semiconductor Gap

What the Philippines Has	What the Philippines Lacks
\$20B+ annual semiconductor exports	Near-zero originated from Philippine-designed IP
300,000+ OSAT workers	<100 chip design engineers in-country
World-class assembly/test infrastructure	No SoC design houses, no IP licensors
6th largest semiconductor exporter globally	Captures only assembly-stage margins

The entire Philippine semiconductor industry earns 5–10% margins on other countries’ designs. One design engineer in San Jose creates more value than a hundred OSAT technicians in Laguna — not because the technicians aren’t skilled, but because the margin structure is 5–10× higher at the design stage.

This program builds the design layer.

SIPP Alignment

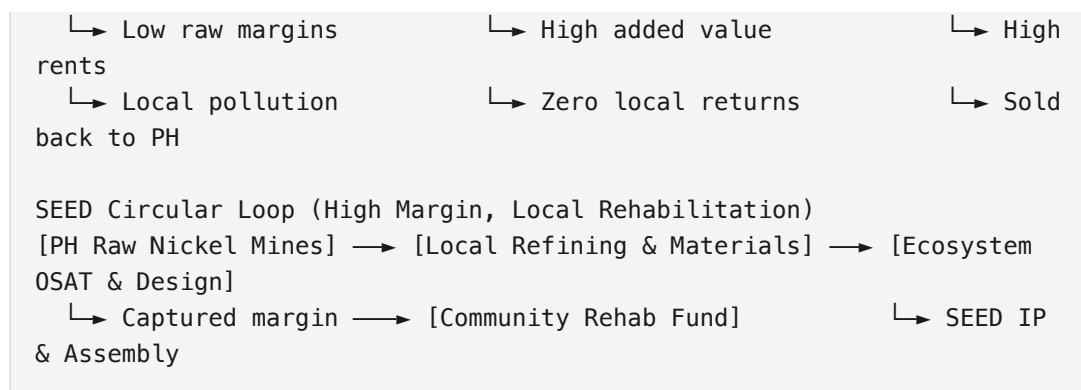
The SEED Program directly serves multiple Strategic Investment Priority Plan categories:

SIPP Priority	Program Alignment
Advanced manufacturing / Electronics	CIM module fabrication (Singapore) with Philippine-designed SoC IP
Innovation and R&D	11 university research tracks, RRAM characterization lab, FPGA prototyping labs
Digital infrastructure	Edge AI devices acting as ground terminals for EquaSat (agriculture, health, maritime surveillance, smart infrastructure)
Human capital development	10 PhD fellowships, 25–35 trained engineers, national chip design curriculum
Regional development	Research tracks in Visayas (UP Visayas, U San Carlos) and Mindanao (UP Mindanao, MSU-IIT)
Export services / high-value activities	Philippine SoC design services exportable to ASEAN and global OEMs

From Mine to Module: Capturing the Raw Material Loop

The global AI hardware supply chain is heavily dependent on critical minerals. The Philippines is one of the world’s largest producers of raw **nickel**—a key input for batteries, advanced packaging, and thermal management systems that power AI infrastructure.

Traditional Extractive Loop (Low Margin, High Damage)
[PH Raw Nickel Mines] → [Refined Abroad (China/US)] → [Foreign AI Chips]



The Downstream Capture Strategy

Currently, the Philippines extracts raw nickel ore and exports it with razor-thin margins, leaving local communities to bear the environmental costs of extraction. The SEED Program advocates shifting the focus from empty buildings in Clark to the root of the hardware supply chain: * **Refining Closer to Electronics:** By integrating advanced material refining (for electronic packaging substrates, battery components, and thermal dissipation materials) directly with design (SEED) and assembly (OSAT), the Philippines captures the premium value-added margin. * **The Ecological Loop:** The high-value margins captured from local refining and design can be earmarked to fund the environmental rehabilitation and infrastructure upgrades of the mining communities. * **Anti-Geed Resource Sovereignty:** This ensures that AI infrastructure is not built on the backs of exploited Filipino labor and degraded environments. Instead of exporting raw wealth, the Philippines processes the wealth domestically to heal its own land.

What Sibacus Brings

The IP Platform

Sibacus has developed BSA-CIM (Binary Shift-Add Compute-in-Memory) — a semiconductor architecture that runs AI models directly in memory at a fraction of the energy and cost of conventional GPUs. The technology is proven through:

- Synthesized and tested hardware (Verilog RTL, FPGA-validated)
- Calibrated energy models (0.239 pJ/MAC — 4–8× advantage over GPU)
- Working software stack (rendering engine, runtime, compiler)
- Validated AI models (dialect translation at production quality)

The Business Model

Sibacus operates like ARM Holdings:

ARM	Sibacus
Designs processor IP in Cambridge	Designs CIM IP in Singapore
Licenses to Qualcomm, MediaTek, Apple, Samsung	Licenses to product companies — starting with Philippine ecosystem
Revenue: per-unit royalty + license fees	Revenue: per-unit module royalty + license fees
Never builds end products	Builds S-Neo as reference design only
Created \$50B+ in annual chip revenue for licensees	Target: Philippine Physical AI product sector

The Philippine Offer

Sibacus offers the Philippines a **preferential licensing head start** — not exclusive, but advantaged:

License Tier	For Whom	Terms
Pioneer License	Philippine-registered companies, SEED Program graduates, FDI companies operating in PH	Reduced royalty, early module access, priority engineering support, and orbital compute licensing
Standard License	Anyone, anywhere	Standard commercial terms

This means: Any company that wants preferential access to the CIM platform has an incentive to **set up in the Philippines**. The trained workforce is there. The preferential license is there. The OSAT infrastructure for final assembly is there.

EquaSat: The ASEAN Sovereign Orbital Platform

While edge devices are the start, the ultimate deployment for BSA-CIM is **EquaSat** (www.equasat.me) — the ASEAN consortium’s flagship sovereign orbital platform. EquaSat is a constellation of satellites designed for nine critical missions (including OCEAN A-EYE, FOREST SHIELD, and HARVEST A-EYE).

The BSA-CIM Imperative in Space: Conventional GPUs cannot operate in space for orbital compute — they require ~700W per chip, far exceeding a satellite’s ~12kW total solar and thermal budget, not to mention radiation shielding. BSA-CIM modules operate inference at ~1W, making them the **only** viable solution for orbital AI.

Philippine Sovereignty and the West Philippine Sea: Through EquaSat’s **OCEAN A-EYE** mission, the constellation will provide real-time, sovereign maritime surveillance capabilities directly applicable to the West Philippine Sea. The edge devices built by SEED graduates are not just standalone products; they act as the distributed ground terminals connecting to and through the EquaSat constellation.

EquaSat vs. Pax Silica: Where the Pax Silica initiative positions the Philippines as an infrastructure provider for US geopolitical interests, EquaSat positions the Philippines to lead ASEAN’s sovereign space program. The SEED Program trains the engineers who can work for both, but EquaSat directly serves Philippine sovereign interests. Notably, EquaSat and SEED have completely separate CAPEX structures, meaning the Philippines participates in the ASEAN consortium through its engineering and design contributions rather than massive infrastructure capital outlay. Each ASEAN country contributes to EquaSat (Philippines = SEED engineers/design, Singapore = fab, Malaysia = OSAT, Indonesia = equatorial launch, Thailand = agriculture, Vietnam = software).

The SEED Program: ₱250M Over 3 Years

Phase	Timeline	Investment	Outcome
Phase 1: Research & Labs	Year 1	₱95M	11 university research tracks, SEED Fellows, lab buildouts at UP Diliman/Mapua/Ateneo/DLSU
Phase 2: Ecosystem Seeding	Year 2	₱90M	Product Design Lab/Incubator opens; first FPGA prototypes; OEM engagement workshops
Phase 3: First Silicon & Spin-outs	Year 3	₱65M	Tape-out (fabricated in Singapore); first ecosystem companies spin out; curriculum at 10+ schools

Funding Sources (No Government Equity Required)

Source	Amount	Status
PhilDev Foundation	₱40–60M	To be proposed
Overseas Filipino community	₱40–60M	Structured giving program
DOST-PCIEERD + DICT + CHED	₱40–60M	Co-funding via NICER/CRADLE
ADB Technical Assistance	₱30–55M	JFICT/TASF grant — concept note prepared
EDB Singapore	₱30–55M	Funds industry partner contribution; creates demand for Singapore-fabricated CIM modules
Sibacus (in-kind)	₱50–75M	IP access, mentorship, equipment

The **BOI ask is not cash**. The ask is fiscal incentives and regulatory support (see below).

IMPORTANT: Pax Silica Alignment: The SEED Program directly addresses the gap identified in the national discourse around Pax Silica — that without developing domestic design capability, the Philippines risks remaining a raw materials supplier while high-value IP stays abroad. As Manila Times columnist Lloyd C. Bautista wrote on July 19, 2026: *“the country must take advantage of [investment] to elevate its manufacturing capabilities, innovation and human capital. Instead of hiring more miners and cargo haulers, the Philippines must produce scientists, engineers and innovators.”* The SEED Program is the vehicle that produces those engineers and innovators — anchored to a real product platform, not just aspirational policy.

Economic Impact Projections

Job Creation

Timeframe	Direct Jobs	Ecosystem Jobs	Total	Job Quality
Year 1–2	25–35 (researchers + fellows)	—	25–35	Graduate-level R&D
Year 3	15–20 (Sibacus PH Design Center)	30–50 (first spin-out companies)	45–70	Engineers, product designers, linguists
Year 5	30–50 (Sibacus PH)	200–500 (ecosystem companies + FDI entrants)	230–550	SoC designers, AI engineers, product managers
Year 10	50–100	1,000–3,000	1,050–3,100	Full semiconductor design ecosystem

Quality metric: Average salary for a chip design engineer in ASEAN is \$30,000–60,000/year — 3–6× the average OSAT technician salary. Each design job creates proportionally more tax revenue, spending, and downstream employment.

Export Value

Scenario	Annual Export Value	Basis
Conservative (10 ecosystem companies, 100K units/year)	\$50–100M	Module royalties + Philippine-assembled devices
Moderate (50 companies, 1M units/year)	\$500M–1B	Comparable to early ARM ecosystem scale
Aspirational (PH becomes ASEAN Physical AI hub)	\$2–5B	Captures design + assembly + services

For context: the Philippines’ current \$20B semiconductor export is almost entirely OSAT margin. Even the conservative scenario adds **higher-margin** design revenue to the national export mix.

FDI Attraction

The preferential licensing structure creates a concrete incentive for foreign companies to **set up Philippine operations:**

FDI Target	Why They Come	What They Build
Japanese electronics firms	Pioneer license + trained engineers + OSAT proximity	Agricultural edge AI for ASEAN rice economies
Korean consumer electronics	Pioneer license + low-cost engineering talent	CIM-powered tablets and devices for emerging markets
Singaporean/ASEAN startups	Pioneer license + lower operating costs than Singapore	Physical AI products for smart cities, logistics
Global IoT companies	Pioneer license + ready ecosystem + market access	Edge inference devices for the 700M-person ASEAN market
US/EU companies seeking China+1	Trained workforce + preferential IP access + existing OSAT base	Nearshore design + onshore assembly

BOI’s role: Register the SEED Program Product Design Lab and Sibacus Philippines as BOI-registered enterprises. The fiscal incentives (below) make the Philippines’ cost proposition unbeatable for FDI in this sector.

The Ask: Fiscal Incentives & Regulatory Support

What We’re Requesting from BOI

Request	Mechanism	Justification
Income Tax Holiday (ITH) for BOI-registered semiconductor design companies	CREATE MORE Act, SIPP-qualified activity	New industry — zero existing PH design companies. ITH bootstraps the sector
Duty-free import of laboratory and prototyping equipment	BOI registration benefit	RRAM characterization equipment, FPGA boards, EDA workstations — not available domestically

Request	Mechanism	Justification
Special economic zone designation for the Product Design Lab	PEZA or equivalent	IP-clean facility requirements for chip design; attracts FDI co- location
Enhanced deduction for R&D spending by ecosystem companies	CREATE MORE Act R&D incentive	Encourages private sector to invest in design R&D on the platform
Balik Scientist facilitation	DOST program	Fast-track visas and relocation support for Filipino semiconductor professionals returning from abroad
Skills training accreditation	TESDA/CHED	Recognize the SEED Program curriculum for national skills certification

What We're NOT Requesting

Not Requested	Why
Government equity in Sibacus	Sibacus is a private Singapore company; government participates through incentives, not ownership
Cash grants from BOI	Cash funding comes from corporate partners, PhilDev, and DOST-PCIEERD. BOI's contribution is the incentive framework
Exclusive territory protection	Non-exclusivity is the point — it attracts FDI. Preferential terms are time-limited and earned
Guarantees on success	This is venture-scale risk. The program is structured so failure of any track doesn't create government liability

Why the Philippines Wins Even If This Is the ONLY Program

Even without a broader semiconductor design strategy, this single program:

1. **Creates the first chip design curriculum** in Philippine engineering schools — applicable beyond Sibacus to any future design work
2. **Builds the only RRAM characterization lab** in Southeast Asia outside Singapore — a national research asset
3. **Produces 12+ open-licensed Philippine language datasets** — useful for any AI company, not just the Sibacus ecosystem
4. **Trains 25–35 engineers** who can design chips — they're valuable to any semiconductor company that enters the Philippines
5. **Establishes the regulatory precedent** for BOI-registered semiconductor design activity — making it easier for the next company to follow

This program doesn't just build one ecosystem. It builds the infrastructure for an industry.

Comparables: How Other Countries Did This

Country	Program	Investment	Result
Taiwan	ITRI → TSMC (1974–1987)	~50M(1970s)	\$700B+ TSMC market cap; 60%+ global foundry share
South Korea	KAIST/SNU → Samsung Semi	~100M(1980s)	\$400B+ Samsung Semi revenue
Israel	Yozma VC program (1993)	\$100M	Startup Nation; \$30B+ annual tech exports
Singapore	EDB semiconductor strategy	\$200M+	GlobalFoundries, Micron, major OSAT hub
Philippines	SEED Program	\$4.5M	TBD — but the ask is 100× smaller than any comparable

The Philippines is being offered the cheapest entry ticket to semiconductor design capability in the history of the industry. The cost of NOT acting is watching Vietnam, Indonesia, and Malaysia build this capability instead — with the same \$4.5M or less.

The ₱2.5B Lesson: Capability First, Facilities Second

In July 2026, a ₱2.5 billion AI infrastructure project at New Clark City — the planned Pax Silica site — received **zero bidders** (Radar.ph, July 8, 2026). The government tried to spend 500× more than the SEED Program costs, on a building, and nobody showed up.

Why? Because 4,000 acres of land is a real estate play disguised as a technology strategy. AI companies don’t need land — they need trained chip designers, licensable IP, a supply chain, and customers. The entire ARM architecture was designed in a barn. NVIDIA started in a Denny’s. You don’t need a special economic zone to design a chip. You need an engineer who knows what they’re doing and an IP platform to build on.

The SEED Program costs ₱250M and creates the engineers, the companies, and the products that fill those facilities. It is the demand signal that makes infrastructure investment viable. Capability is portable — trained engineers can set up in Clark, Makati, Cebu, or anywhere. Empty buildings cannot.

WARNING: The ₱2.5B failure is what happens when you invest in buildings before people. The SEED Program inverts this: invest ₱250M in people, and the ₱2.5B facilities will fill themselves — because there will finally be companies that need them. Clark is the where. SEED is the who and the what. Without SEED, Clark is an empty building with a nice road.

Proposed Next Steps

Step	Timeline	Owner
1. BOI briefing and Q&A	Within 30 days	Sibacus + BOI Industry Development team
2. SIPP activity classification review	60 days	BOI Legal / Policy
3. BOI registration application (Sibacus Philippines + Product Design Lab)	90 days	Sibacus Philippines counsel

Step	Timeline	Owner
4. Incentive package negotiation	90–120 days	BOI + Sibacus
5. Joint announcement with DOST-PCIEERD co-funding	120–150 days	BOI + DOST + Sibacus
6. Program launch	180 days	SEED Foundation + universities

Contact: [To be filled — Sibacus Philippines liaison]

Sibacus Technologies / DotOS Holdings Pte. Ltd. — Singapore “Compute lives in the memory. The ecosystem lives in the Philippines.”