CNX Vinyl

A full-chain vinyl record plant for Asia-Pacific in Chiang Mai, Thailand

We propose **Plan B, ~215M THB**: the launch plant with every item included. This is a draft of October 2026. Plan A, the lowest-capital variant (~182M THB), appears only as a comparison.

~217M
THB at the midpoint (~6.56M USD), labeled ~215M; ramp-up reserve in, no contingency

0.58 to 0.90M
records a year at 60% specials on three Newbilt presses est.

Whole chain
cutting, galvanics, stamper prep and pressing, all in-house from the first release

Simona Meesaiyati, Project Lead · Alexander Grabowski, Technical Consultant · supported by buildfor.life · label name Poy Records



Plan B as the plant and business plan calculator draws it: the owned ~520 kWp array sits on the factory roof, and the office roof and canopies are ready for PV. The drawing is schematic, on the Payap scenario layout and a placeholder plot; the site is not decided.

Sources: business plan B, draft 0.3 (October 2026), cover and section 1; total-investment.md, section "Two plans". The render is from fleet-calculator.html, Plan B preset (business plan B, figure 8). The price includes the 10M to 20M THB ramp-up reserve and carries no contingency.

Asia-Pacific labels press on other continents. We know of no full-chain plant in the region.

WHERE REGIONAL CUSTOMERS PRESS TODAY

Europe, the US, Japan

Labels in Southeast Asia, Australia and much of East Asia send their masters there, wait in those queues, pay the freight and work across time zones.

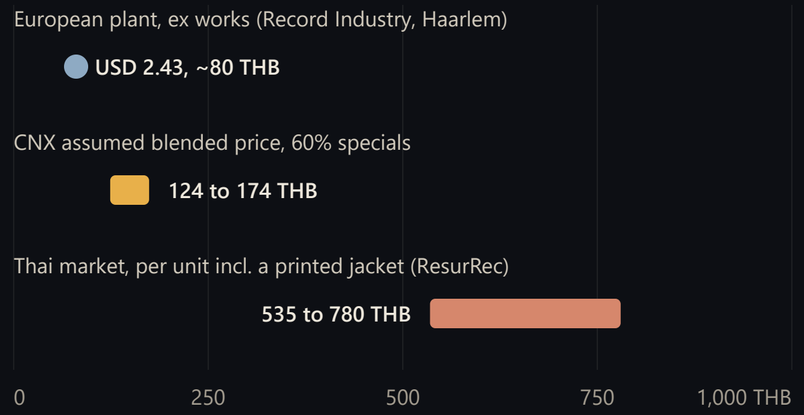
10 to 16 weeks

is roughly the wait for a standard black LP at European and US plants today, down from 6 to 9 months at the 2021 to 2022 peak.

One shop

The one Thai pressing shop we have seen presses only: it buys its stampers abroad, has no climate control, and cannot economically serve runs under 300 units.

PRICE PER RECORD: THE TWO MARKET DATA POINTS ON FILE



The scopes differ. The European price is for black pressing with printed labels and a paper inner sleeve at 300 copies. The CNX price is the plan's assumption, USD 3.76 to 5.27, for pressing, labels, inner sleeve and assembly at 60% specials. The Thai price is the per-unit price on the August 2026 invoices (650 to 950 THB all-in at 300) and includes a printed jacket; even with 100 to 150 THB taken off for the jacket, it is several times the CNX assumption.

WHAT IS STILL OPEN

- **Market validation is still open** (roadmap item 1), and we have no buyer prices yet. The Thai data comes from one buyer, one plant and one afternoon.
- At Making Vinyl Europe in Haarlem, suppliers showed strong interest in full traceability. Their interest is real, but it does not show what buyers will pay.
- The plan keeps its assumed price until buyers have been asked.
- We compete on capability: in-house plating, climate control, metrology, traceability, short runs and represses from archived metal. We do not plan to win orders on price.

Sources: business plan B, sections 1, 3.1 to 3.3 and 9.1; revenue-model.md, sections "First market data point" and "Record Industry's calculator"; roadmap.md, item 1. Prices are converted at 33 THB per USD.

WHAT WE BUILD

One capital round buys the complete vinyl chain under one roof

1. **Mastering** — Console and chain; one to two engineers
2. **Lacquer cutting** — Sillitoe SDMS cutting system
3. **Galvanics** — Pheenix Alpha line; zero liquid discharge
4. **Stamper prep** — Sibert back-finish, punch, coin
5. **Pressing** — Newbilt Duplex system and Classic
6. **Finishing** — Trim, sleeve, shrink; optical QC
7. **Packaging** — Ploy Printing, Chiang Mai
8. **Fulfillment** — Bulk to labels, parcels to fans

3 presses

One Newbilt Duplex system (two semi-automatic HRP 12 presses, an EX 50 main and an EX 35 color extruder) and one fully automatic Newbilt Classic

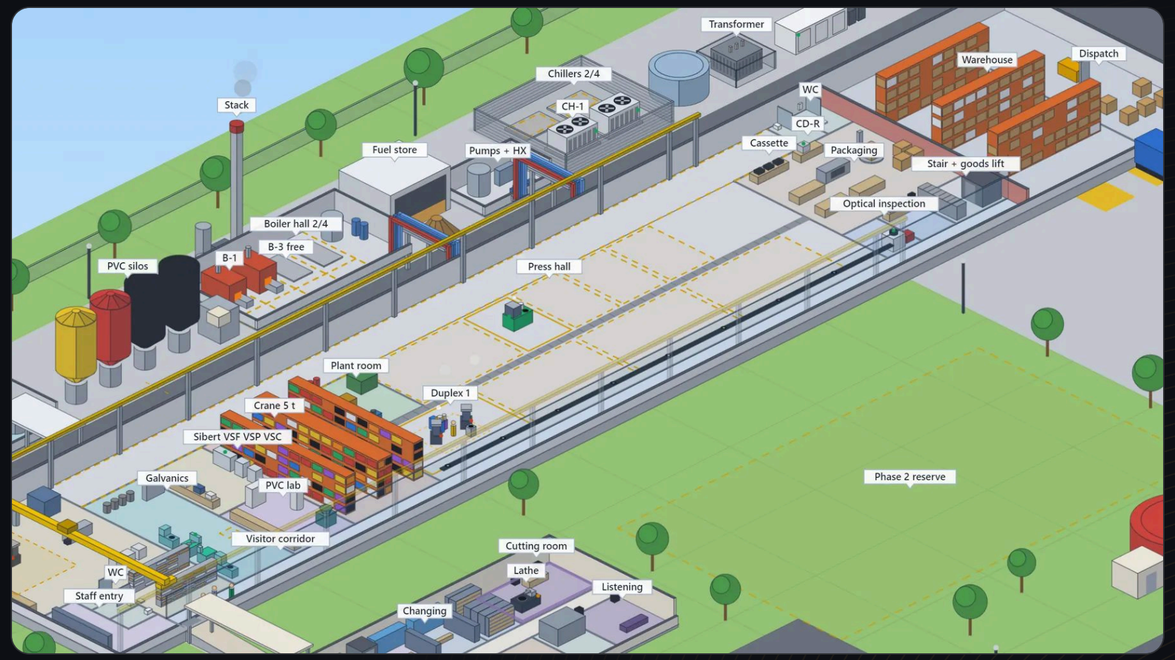
0.58 to 0.90M

records a year on two shifts at 60% specials, central case 0.74M est.; 0.71 to 0.97M at a standard-heavy mix

60%+

special pressings (splatter, marble, color effects). They run only on the Duplex, so the Duplex sets the pace.

- We keep the father and the mother of every side in a **metal archive**, so a repress starts from our own metal and takes 2 to 3 weeks from an archived mother (planning figure).
- **Cassette and CD-R duplication** also run in-house from launch. Full CD replication is a separate decision for the investor and is not in the price.
- **A second Duplex system** would lift output to ~1.0 to 1.5M records a year. Revenue pays for it, so it is not in the plan price; its floor space, utility positions and pipe tees are reserved.



The press hall in the Plan B preset: Duplex system 1 and the Classic, the 5 t crane, the visitor corridor, and the cassette and CD-R rooms. Dashed bays are reserved for growth. Schematic, from fleet-calculator.html.

Sources: business plan B, sections 1, 4.0 to 4.4, 4.7 and 4.9, and figure 10; total-investment.md, section "Launch plant"; scale.md; production-timeline.md; equipment/pressing-line.md.

HOW A RECORD IS MADE HERE

Every record is traceable through nine stages and three artist approvals

1
Audio intake
Checksums, format, technical QA

Gate 1 master plan

2
Vinyl mastering
Engineer QA of the vinyl master

Gate 2 master

3
Lathe cutting
Groove microscope, test cut, dead-wax scribe

4
Silvering, electro-forming
Bath logs, XRF thickness per part

5
Stamper prep
Concentricity, dimensions, visual

6
Pressing
Telemetry per cycle, 100% optical, sampled audio

Gate 3 test pressing

7
Finishing
Trim quality, sleeving

8
Packaging
Matrix code scanned against the jacket barcode

9
Fulfillment
Carrier tracking per shipment

Traceability

A record's key is stamper + press + cycle timestamp + side. The logs are append-only, so a complaint traces back to one stamper, press, shift and material lot.

One system of record

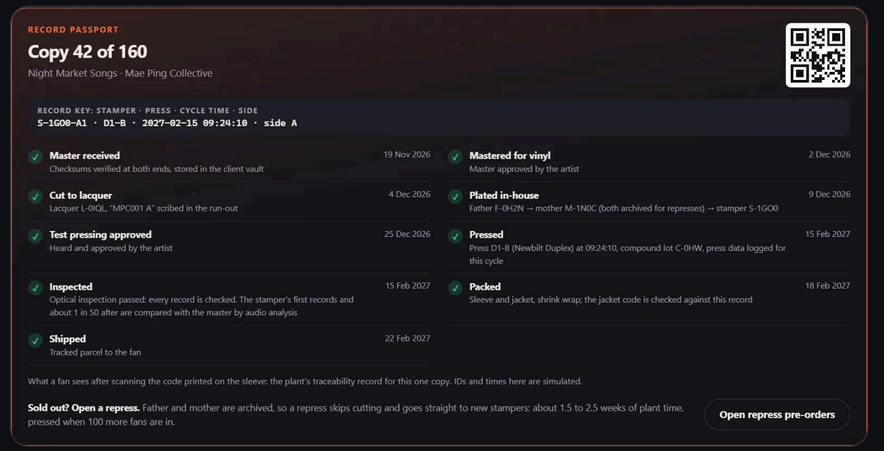
ERPNext holds orders, gates, job cards, stock, inspections and metal-part genealogy; machine data sits beside it, keyed to the same names.

Layered quality control

Every record passes inline optical inspection, the press logs every cycle, and audio is compared with the master on samples. Every PVC lot passes a lab gate.

Metrology and climate

Every stamper is measured from the first release by XRF, laser confocal and a wide-area profiler. The plant is kept at 20 to 26 °C and 35 to 60% RH, with filtered air.



The record passport demo shows what a fan sees from the code on the sleeve (IDs simulated; make-a-record.html).

100%
of records through inline optical inspection

3 gates
artist approvals recorded before work continues

~10 sets
of stampers per archived mother; 5 to 10 mothers per father (rules of thumb)

Sources: process-flow.md; traceability.md; quality-automation.md; digital-factory.md; business plan B, sections 1, 4 and 5.1 to 5.3.

One order tool gives an itemized quote or lets fans fund the pressing



Step 4 with the "Splatter 12"" preset: the picture changes with every option and the quote card with every line. Prices and dates are indicative and do not form an offer.



The same record funded by fans: at 1,200 THB a copy it needs 100 fans (break-even is 46), and the artist keeps ~480 THB a copy after setup, pressing and fees. The figures are indicative, and the platform's name is not decided.

An itemized offer for every customer

Every line is priced from one price list, per title and per copy, and audio and artwork are checked at upload. ERPNext is the system of record and holds the order, the three gates and the invoice. The tool goes public early with indicative prices, so every configuration becomes market data.

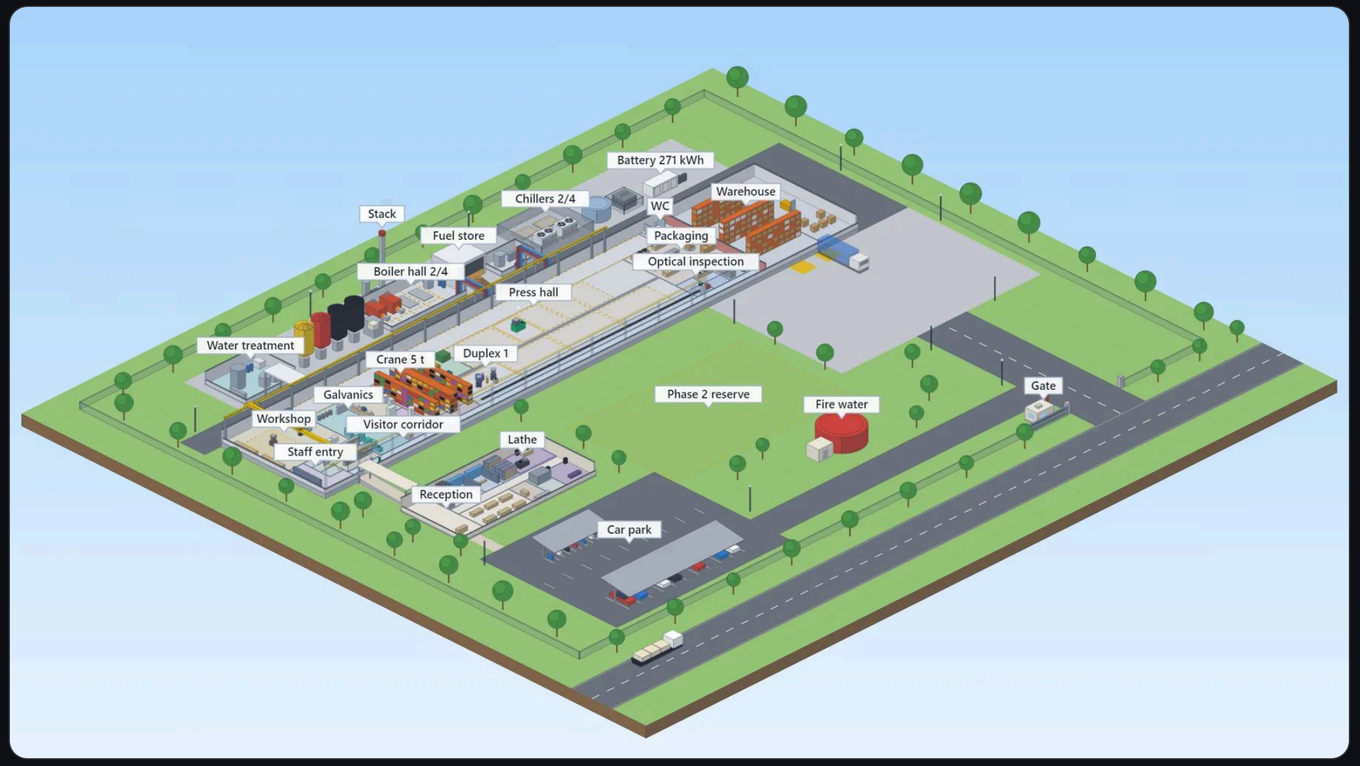
Fan-funded campaigns

Fans pre-order into a ring-fenced account and are refunded automatically if the goal is missed (the recommended model). The number of fans needed is the larger of break-even and the 100-copy minimum run, a planning figure. Campaigns open only after the first releases ship.

Sources: artist-platform.md ("The goal", campaigns and payments); business plan B, sections 4.8 and 5.1; digital-factory.md, section "ERPNext: the plant's ERP". The screenshots are from order.html, the step-by-step order tool (demo). The public side costs ~USD 40k to 90k *est.*, inside the software block.

SITE AND BUILDING

The ~1,500 m² plant on leased land has utility rooms for four modules



The ground floor with the roofs cut away, Plan B preset: galvanics, stamper prep, PVC lab, press hall, inspection, packaging and warehouse; the office with the cutting room; the 5 t crane, the visitor corridor and the 271 kWh battery. It is a schematic of the calculator's Payap scenario layout on a placeholder plot.

SITE — We plan a long lease. Mueang Chi (Lamphun) is the working candidate. Payap University land, ~5 km from Chiang Mai's old city, is still an option once rezoned (Payap says it can be; ~16 to 19 months est.). An industrial estate is the fallback, and nothing is signed yet.

LAND — The plant needs ~4 rai at minimum, 6 to 8 rai with expansion. Leasing keeps ~12M to 32M THB of land purchase out of the round; rent is ~0.3M to 1.0M THB a year est.

BUILDING — An insulated, airtight steel portal frame, 60 × 25 m (1,500 m²), with a 5 t crane and a 30 kN/m² slab raised 1.2 m for dock-height loading.

VISITORS — A glazed corridor in process order is built from the start, so tours and the Payap programs do not stop production.

UTILITY YARD — The ~379 m² yard has a boiler hall and a chiller compound for four modules each. At launch it holds two 500 kg/h biomass boilers and two 250 kW chillers from Thai suppliers.

ROOF — We own ~520 kWp of PV on the factory roof and a 271 kWh battery est. The office roof and canopies are ready for PV.

GROWTH — Duplex bays and utility positions are reserved, and a second building of 45 × 38 m (1,710 m²) fits the Mueang Chi plot.

Sources: business plan B, sections 6.1 and 6.2; site-candidates.md; scale.md; crane-workshop-tours.md; for the Payap rezoning, land-listings/payap/rezoning-2026-10-20.md (Town Planning Act B.E. 2562, section 35; the planning department's amendment work plan, ~70 to 82 weeks). The render is from fleet-calculator.html, Plan B preset (figure 9). The 60 × 25 m hall is the Mueang Chi design; the layout is fixed once a plot passes zoning and lease-ability.

The plant uses biomass steam, owned solar and zero liquid discharge

STEAM FROM BIOMASS

Biomass fuel
~0.67M THB/yr

Electric steam
~4.9M THB/yr

Two 500 kg/h modules burn wood chips: **~0.67M THB** of fuel a year against **~4.9M THB** for electric steam, a saving of ~4.2M THB est. Grid demand is ~264 kW instead of ~980 kW.

Heat is recovered first, by a flue-gas economizer, the condensate return and a heat pump that lifts the presses' ~60 °C cooling return into the feedwater.

OWNED SOLAR ON THE ROOF

~520 kWp

Share of the plant's electricity

~61% ~633 of ~1,036 MWh

The array makes ~730 to 780 MWh a year, and ~87% is used on site: ~633 MWh, ~61% of the plant's ~1,036 MWh est. Nothing is exported to PEA's grid.

Owned with the 271 kWh battery, it takes ~2.3M to 2.5M THB a year off the power bill and pays back in ~4.1 to 5.8 years est.

WATER AND MATERIAL

Zero

process water discharged

The cooling loop is closed. Galvanics rinse water goes through a zero-discharge evaporator with metal recovery in a separate treatment building.

The presses run on 80% virgin material and 20% regrind: edge trim and rejects are ground in-house and go back to the extruder.

NORTHERN THAILAND

~15 to 25

jobs across shifts at volume est.

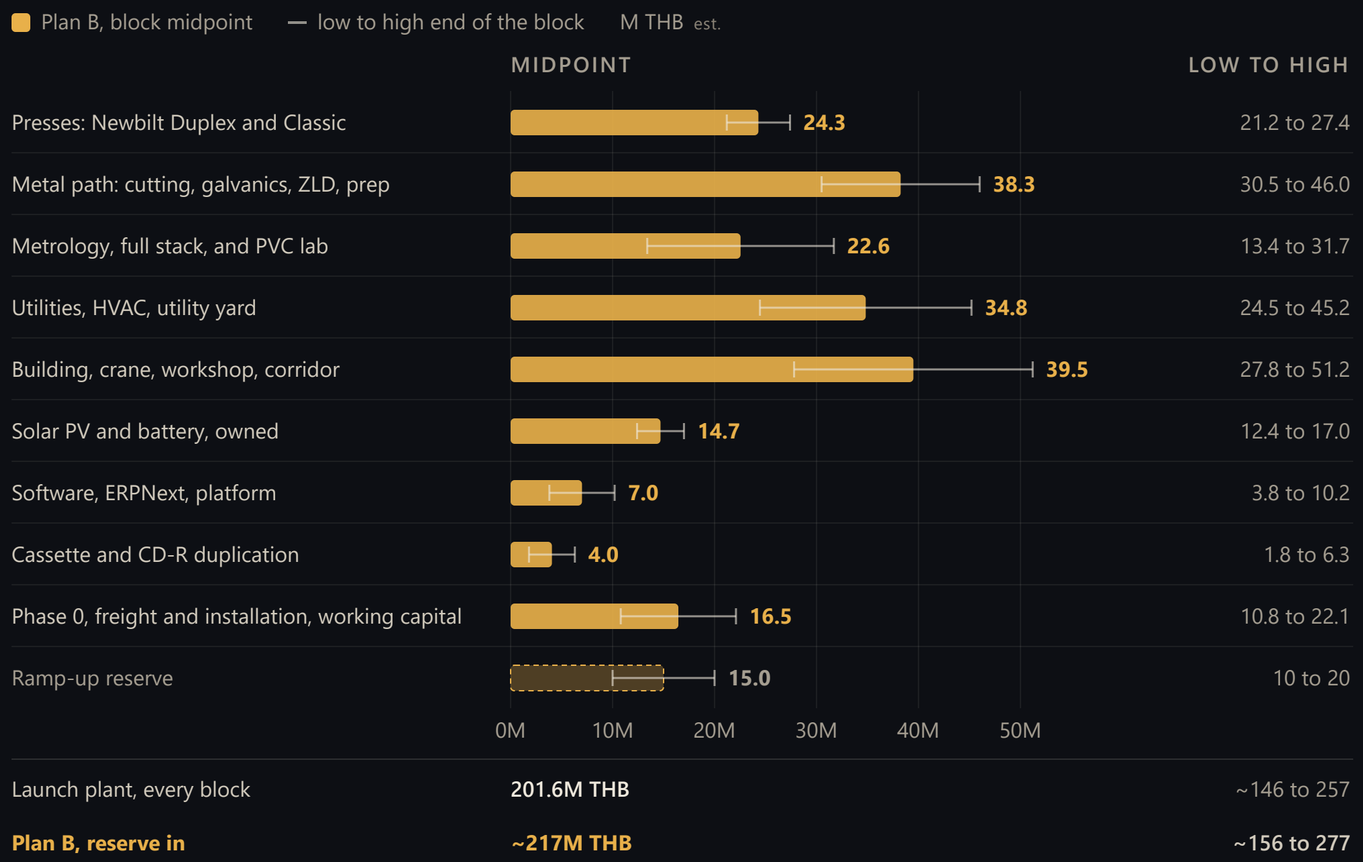
The jobs include skilled roles in galvanics, cutting, QC and IT. Payap University programs can use the visitor corridor from day one (under discussion).

Chiang Mai, Lamphun and Lampang form the Northern Economic Corridor, which BOI promotes as a creative-economy base. Packaging comes from Chiang Mai.

> Biomass brings fuel contracts, a monsoon stock, ash handling, a 14 m stack with a dust collector and a certified boiler attendant; the stack is a visible point source in Chiang Mai's burning season, so dust control is in the design from the start.

Sources: business plan B, sections 1, 5.4, 8.4 and 12.1; biomass.md; sustainability.md, sections "PV size with biomass steam" and "PV, not solar thermal"; boi.md, section "Regional angle"; scale.md. Fuel is costed at ~850k records and a planning price of 1.35 to 2 THB/kg delivered.

Plan B builds the whole launch plant for ~217M THB at the midpoint



PLAN B, THE PROPOSAL

~217M THB

~6.56M USD

201.6M for the launch plant plus the 10M to 20M ramp-up reserve; ~156M to 277M from the low to the high end of every block. It is labeled ~215M.

Plan A, the lowest-capital variant, is the same plant with six cost levers — ~182M THB

WHAT PLAN B BUYS THAT PLAN A LEASES OR DEFERS

IN AT LAUNCH IN PLAN B	PLAN A INSTEAD	M THB
Solar ~520 kWp and 271 kWh battery, owned	Solar PPA	~14.7
Full metrology, with confocal and profiler	From revenue	~8.8
Visitor corridor and accessible entrance	Built later	~3.6
Cassette and CD-R duplication	Added later	~4.0
5 t overhead crane, bought	Rented	~3.2
Compressor from a Thai supplier	Chinese route	~0.25
Total at the midpoint		**~34.5**

The price carries no contingency (at 15% it would be ~30M THB). It also leaves out the central hydraulic plant, archive shelving, CD replication, financing costs, currency moves, and duty and import VAT (BOI assumed).

Sources: business plan B, sections 8.1 and 8.2; total-investment.md, sections "Launch plant" and "Two plans". The block groups and their midpoints are arithmetic on the block ranges. Plan A costs ~182M THB at the midpoint and ~132M to 233M from the low to the high end of every block.

WHY PLAN B

Plan B buys ownership and control at a lower modeled return

Both plans build the same three presses and make the same records, so demand does not decide between them. Plan B spends ~35M THB more at launch on what Plan A leases or buys later, and it leaves fewer moving parts to finance once the plant runs.

~14.7M THB

No power contract on the roof

We own the ~520 kWp array and the 271 kWh battery, so there is no 15 to 25 year PPA and no PPA bill of ~1.9M THB a year. The array pays back in ~4.1 to 5.8 years est.

~3.6M THB

Tours and Payap from day one

A glazed corridor in process order serves artists, labels, investors, schools and the student programs. It costs less to build in than to add.

~3.2M THB

An owned crane

A 5 t crane over the production compartment moves machines in, out and around without a hired mobile crane.

~8.8M THB

Traceability from the first release

The laser confocal and the wide-area profiler are bought at launch instead of from revenue, so every stamper is fully measured. That is the core of our pitch to labels.

~4.0M THB

Cassette and CD-R sales

Both formats are sold beside vinyl from launch. Their revenue is not in the operating model.

~0.25M THB

Local service

The compressor comes from a Thai supplier, like the other utilities, instead of by the Chinese route.

WHAT THE MODEL SAYS, PLAN B AGAINST PLAN A

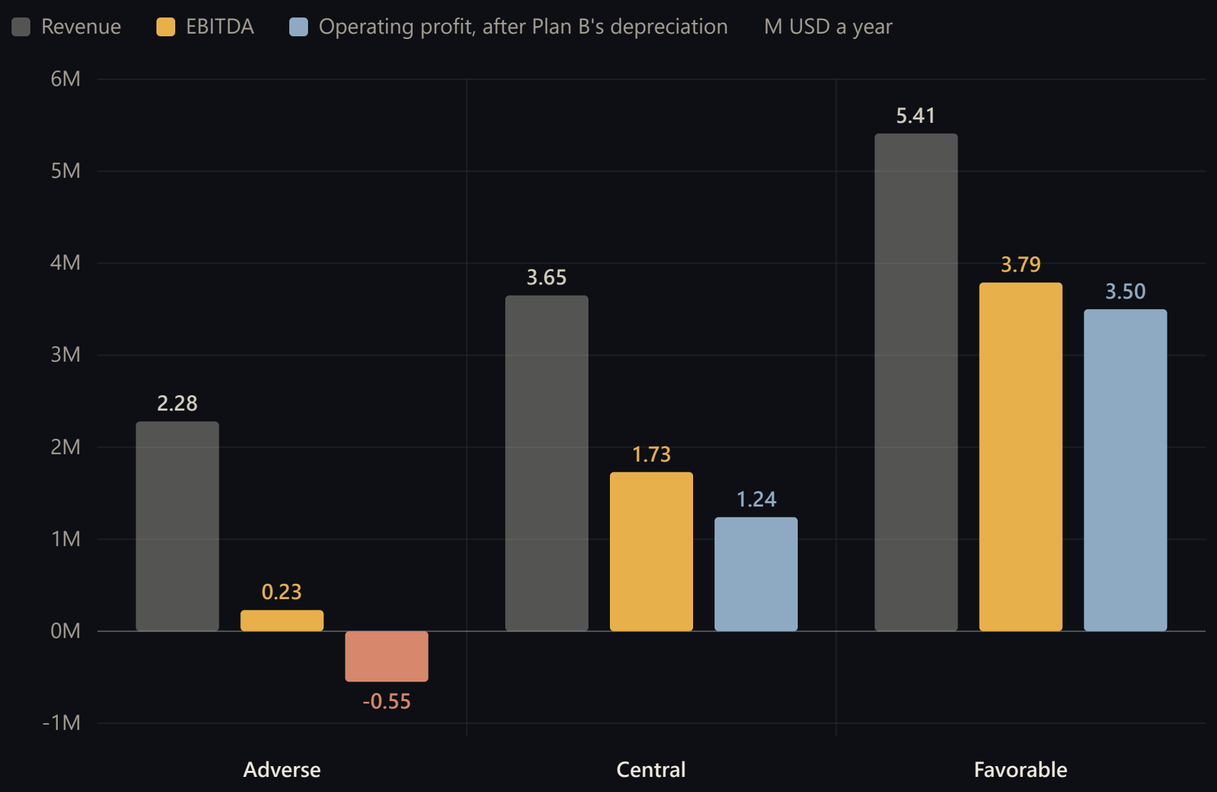
MIDPOINTS, ESTIMATES	PLAN B	PLAN A
Plan price with the reserve	**~217M THB**	~182M THB
EBITDA, central, revenue model	**1.73M USD**	1.73M USD
EBITDA, calculator (no PPA bill in B)	**2.23M USD**	2.17M USD
Depreciation, central	**0.49M USD**	0.40M USD
Operating profit, central / adverse	**1.24M / -0.55M**	1.33M / -0.41M
Payback on the plan price, central	**~3.8 yr**	~3.2 yr
Cash payback and IRR, calculator	**yr ~4.2, ~22%**	yr ~3.8, ~26%

Plan A has the better modeled return, and Plan B the more complete plant. Most of B's items could be added to A later from revenue, but the corridor is cheaper from the start, and every year the array is leased costs the PPA bill. Owning the array earns no BOI tax benefit: BOI dropped solar on July 1, 2025, and only the battery may qualify.

Sources: total-investment.md, "Two plans" ("What decides between them"); revenue-model.md, "Operating pictures of Plan A and Plan B"; business plan B, sections 1, 8.2, 8.4 and 9.4; fleet-calculator.html, presets planA and planB; sustainability.md, "Leasing instead (Plan A)" (PPA terms 15 to 25 years) and "PV, not solar thermal"; boi.md.

OPERATING PICTURE, PLAN B, MATURE YEAR

Plan B's central case makes a profit; the adverse case loses money



USD A YEAR, PLAN B	ADVERSE	CENTRAL	FAVORABLE
Records	0.58M	0.74M	0.90M
Price per record	3.76	4.49	5.27
Direct cost per record	2.70	2.00	1.35
Revenue	2.28M	3.65M	5.41M
Revenue, THB	~75M	~120M	~179M
EBITDA	0.23M	1.73M	3.79M
Depreciation	0.78M	0.49M	0.29M
Operating profit	**-0.55M**	**1.24M**	**3.50M**
Payback, plan price	~37 yr	~3.8 yr	~1.2 yr

The adverse column is the honest one. A central EBITDA margin of ~47% is far above the 15 to 25% that pressing plants earn, because the direct cost leaves out indirect labor, freight, scrap above the reject allowance, sales commissions and the extra cost of specials.

~0.24M
records a year to break even on operating profit

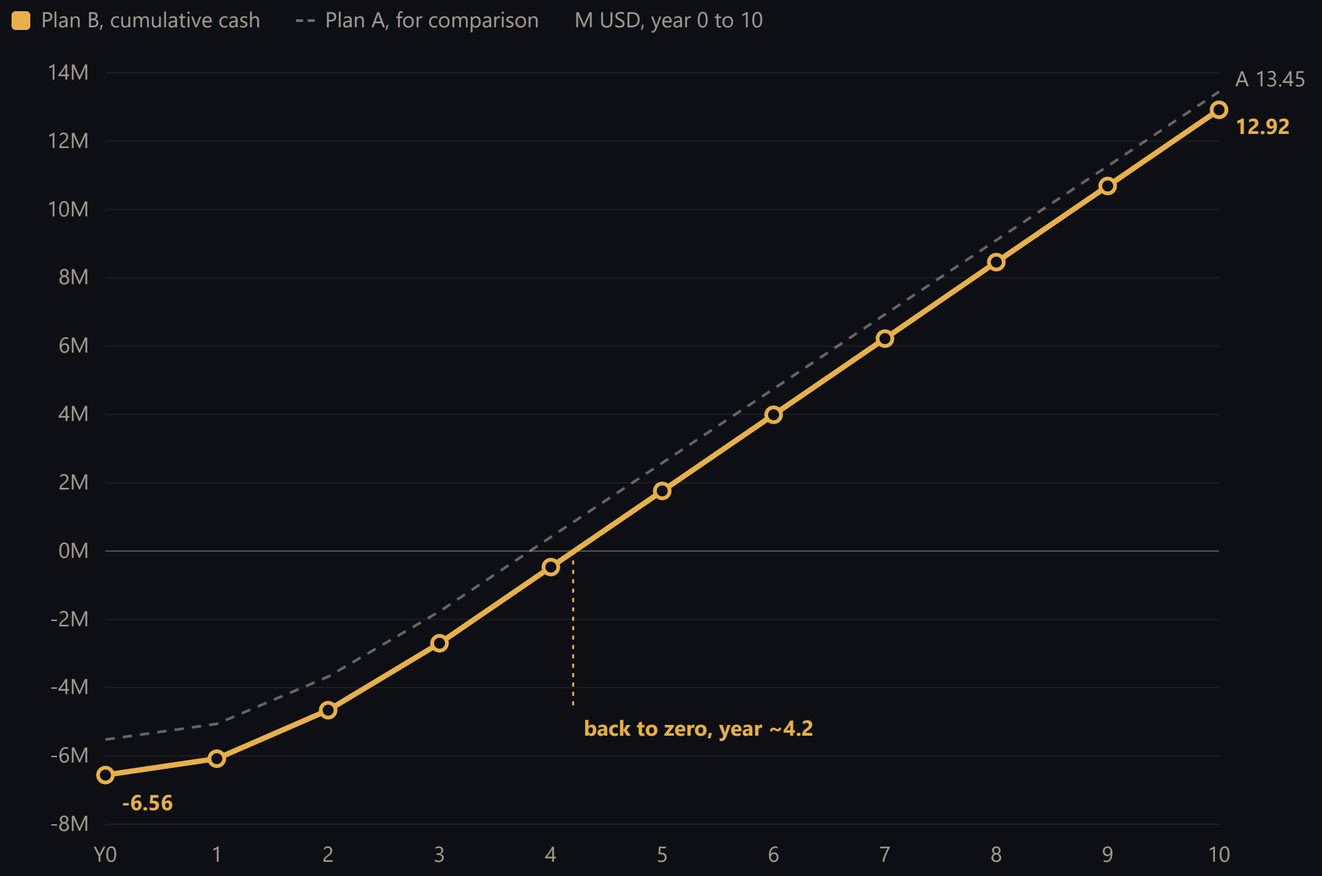
~1.1M
records the adverse case needs to cover depreciation; the presses make 0.58M

~2.8 USD
(~92 THB) a record covers depreciation at central cost and volume

Sources: revenue-model.md, "Operating pictures of Plan A and Plan B (October 2026)"; business plan B, section 9.4. The figures are estimates for a mature year at 60% specials, with depreciation on Plan B's blocks; payback is the plan price, reserve included, divided by EBITDA. For comparison, Plan A's operating profit is -0.41 / 1.33 / 3.54M USD.

CASH AND RETURNS, PLAN B

Plan B earns back its cash in year ~4.2, at a ten-year IRR of ~22%



CALCULATOR PRESETS	PLAN B	PLAN A
Cash payback	**year ~4.2**	year ~3.8
IRR, ten years	**~22%**	~26%
NPV at 10%	**~4.7M USD**	~5.4M USD
Year 0: investment and reserve	**6.56M USD**	5.52M USD
Mature-year EBITDA	**2.23M USD**	2.17M USD
Simple payback: plan price before the reserve / mature EBITDA	**2.7 yr**	2.3 yr

The calculator assumes 850k records at 60% specials at the team's planning rate (3 records a minute per Duplex system) and uses its own cost build-up with biomass fuel and the cutting engineer; Plan B pays no PPA power price. Output ramps through 35, 70 and 90% in years 1 to 3. The view is pre-tax and pre-financing, with no BOI tax holiday and no terminal value; it is a sketch and should not be read as a forecast.

In the revenue model's adverse case, EBITDA pays Plan B's price back in ~37 years. Phase 0 will produce a year-by-year cash model for the ramp.

Sources: business plan B, section 9.4 and figure 12; fleet-calculator.html, presets planB and planA, cash view (values read from the page, October 2026); revenue-model.md. All values are estimates.

BOI waives machinery duty, and the shareholders fund the whole plant

CATEGORY	Basic plastic consumer-goods manufacturing (Category 6) in incentive Group B, with no tax holiday on the core activity. A BOI-registered consultant must confirm the sub-code.	TO CONFIRM
PRIVILEGES	No import duty or import VAT on machinery; 100% foreign ownership; visas and work permits through the One Stop Service; duty relief on raw materials for export production.	GROUP B CORE
UPGRADES	Smart and Sustainable Industry (15/2565, refreshed July 2025) typically gives 3 years of CIT exemption, capped around 50% of the upgrade spend; an R&D merit at 1% of revenue adds 1 to 3 years.	TO STRUCTURE
SOLAR	BOI stopped promoting solar on July 1, 2025 (Announcement 3/2568), so Plan B's owned array earns the bill saving and no tax benefit. The 271 kWh battery may still qualify, capped at 12M THB per MW.	SOLAR DROPPED
CONDITIONS	Debt-to-equity no higher than 3:1 for the life of the privileges, which we meet with no debt; at least 1M THB invested, excluding land and working capital; modern machinery; progress and annual reports; machinery imported within ~30 months and full operation by ~36 months.	BINDING
PROCESS	e-Investment filing and an analyst meeting; ~40 working days to a decision under 200M THB and 60 to 90 above, or 4 to 6 months in practice. No machinery is ordered before the certificate.	PHASE 0
WITHOUT BOI	We would pay ~5% duty on ~2.3M USD of imported machinery (~0.11M USD) and ~0.17M USD of import VAT up front est.	AVOIDED

PLAN B'S FUNDING NEED, WITH THE RESERVE AND NO CONTINGENCY

~217M THB

~6.56M USD at the midpoint, labeled ~215M; ~156M to 277M from low to high

All equity

share capital paid in by the shareholders; no bank loan is planned

SHAREHOLDING



At least 60%

the lead investor: at least ~130M THB

At most 40%

co-investors (Ploy Printing as intended strategic co-investor, the founders, others): at most ~87M THB

These amounts are arithmetic on ~217M THB of share capital at one share price. Price, valuation and in-kind shares are not agreed; the shareholders' agreement sets the terms.

COLLATERAL Nothing is pledged. The machinery, with Plan B's owned PV array and battery, can secure a loan if one is needed, and so can the building if the lease grants ownership and the right to mortgage it. The land is leased.

USE OF FUNDS Equipment (presses, metal path, metrology, lab) ~85M THB; building, crane, workshop and corridor ~40M; utilities ~35M; solar and battery ~15M; software, cassette and CD-R, freight, working capital and phase 0 ~28M (block midpoints est.), plus the reserve, in tranches (slide 17).

> Share capital is called in installments against the tranches; the call schedule and the shareholders' agreement are open.

Sources: boi.md; business plan B, sections 1 ("The ask"), 6.1, 7.1, 8.1, 8.4 and 12.2; total-investment.md, "Launch plant" and "Two plans" (shareholding and funding, October 20, 2026). The 60/40 amounts and use-of-funds groups are arithmetic on the plan's figures.

SHARE PRICE: WHAT THE 40% COULD COST

At par, the 40% costs ~86.8M THB; what it is worth later is a range

FOUNDING ROUND AT PAR, PARI PASSU: PLAN B'S ~217M AS SHARE CAPITAL

100 THB A SHARE EXAMPLE	SHARES	THB
The lead investor, at least 60%	1,302,000	130.2M
Co-investors, at most 40%	868,000	86.8M
Share capital for all of Plan B, no loan	**2,170,000**	**217M**

Called in installments against the tranches (slide 17), at least 25% (~54M THB) on subscription. Thai law allows no shares below par, requires a par of at least 5 THB, and allows a premium only if the memorandum does.

DEVELOPMENT PREMIUM, ONLY FOR DOCUMENTED COSTS

101 THB +1%

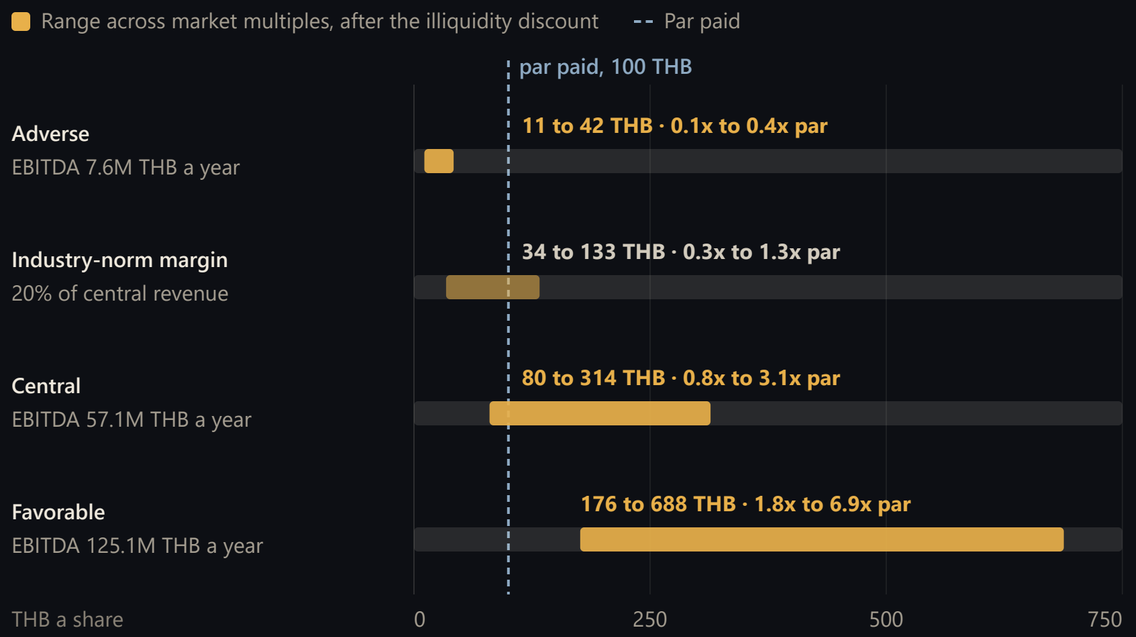
with 2.6M THB of phase 0 spending credited, the 40% costs 87.8M

105 THB +5%

with 10M THB credited for pre-round work, the 40% costs 90.8M

A financial co-investor today (venture-capital method, first-stage target return 40 to 60%, year 5) would pay **12 to 73 THB a share** in the central case and 2 to 10 in the adverse case, below par in both.

VALUE OF ONE 100 THB SHARE ONCE THE PLANT RUNS EST.



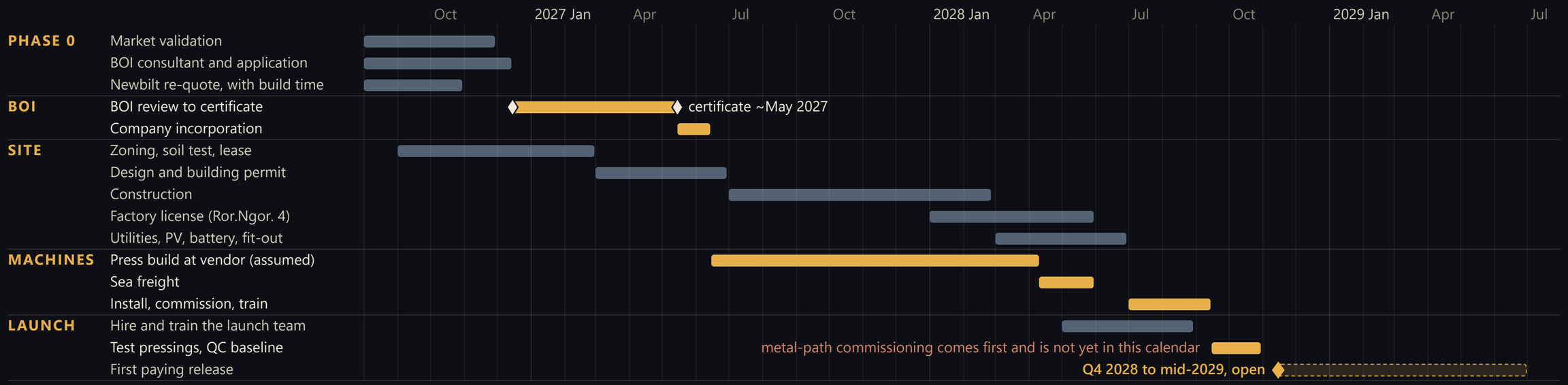
EV/EBITDA from 4.7x (Thai listed plastics and packaging) to 14.9x (emerging-market industries), less a 20 to 35% discount for a private minority stake, with no loan (net debt 0) and 2,170,000 shares.

No valuation or offer price is implied. Adverse is the honest case (central margin ~47%; plants earn 15 to 25%). With no loan a share keeps some value but loses most of it; at Thai listed multiples even the central case is below par. Co-investors need pre-emption, information rights and calls tied to the tranches.

Sources: share-price.md (October 2026); total-investment.md, "Two plans"; revenue-model.md, "Operating pictures"; Damodaran industry EV/EBITDA and betas (January 2026), country risk premiums (July 2026), illiquidity discount (2005) and venture target returns (2009); ThaiBMA 10-year yield 2.30% (October 19, 2026); SET peers via stockanalysis.com (October 20, 2026); Civil and Commercial Code ss. 1105, 1117, 1120 to 1125 and 1222. All values are estimates.

SCHEDULE

The date of the first paying release is open: Q4 2028 to mid-2029



August 2026 calendar with the optimistic end drawn; every duration is an estimate

COMMISSIONING SEQUENCE

1. The cutting room and galvanics, with the Sibert line, come first, because the presses need their stampers.
2. The Newbilt Duplex system follows, with boilers B-1 and B-2 and chillers CH-1 and CH-2.
3. The Newbilt Classic comes last, once the metal path and the press process are stable.

The cassette and CD-R lines are commissioned alongside. The owned PV and battery, the 5 t crane and the visitor corridor go in during the build.

LONG-LEAD ORDERS, AFTER THE CERTIFICATE

They are the Pheenix galvanics line, the Sillitoe lathe, the Sibert line, the Newbilt Duplex system and Classic, two biomass boiler modules and the first two chiller modules. We assume a press build of 9 to 12 months; the other build times are not quoted.

WHAT MOVES THE DATE

The date depends on the BOI filing and the vendor build times; a 15 to 18 month press build moves launch to mid-2029. Ordering with a deposit before the certificate, if BOI allows it, could bring launch 6 to 9 months earlier.

Sources: project-timeline.md, calendar anchored in August 2026 (nothing in phase 0 has started, so it shifts day for day; it is not yet redrawn for the launch plant); business plan B, sections 10, 11 and 11.1; roadmap.md, phases 0 to 4.

RISKS AND MITIGATIONS

These are the risks we carry and the steps that retire each one

SEVERITY	RISK	MITIGATION AND STATUS
HIGH	Pricing power is unproven: market validation (roadmap item 1) is open, with no buyer prices yet.	A validation gate with regional labels, the platform's calculator as an interest list, and no large spending before the gate clears.
HIGH	Utilization and price: the adverse case loses money, and the extra cost of specials is not yet in the direct cost.	Treat the adverse column as the honest one and the gain from specials as an upper bound until compound quotes arrive; the second Duplex waits for demand.
HIGH	Plan B's price has no contingency (~30M THB at 15%), and the high end of every block is ~277M with the reserve.	Quotes come before commitment, money is released in tranches, and overrun funding is agreed up front.
HIGH	Galvanics and cutting are on the critical path, and galvanics is the hardest skill to hire. Sibert advised getting presses, boilers, operators and feedback loops right first.	We carry that advice as a risk: commission the metal path first and measure it, hire early and train at the vendors, with Stamper Discs and SST as overflow contacts.
HIGH	Two prices are not on file: the Newbilt Classic (placeholder band) and the Pheenix line (OMS reference + 20%, no Pheenix quote).	A Newbilt re-quote and a Pheenix quote in phase 0, with OMS's offer as the galvanics benchmark.
HIGH	Vendor build times are unknown, and the press build carries ~40% of the schedule.	Every re-quote must state the build time and the order-book position.
HIGH	Zoning is unverified: Mueang Chi is unchecked, and Payap's first plot needs rezoning (~16 to 19 months; Payap says it can be done).	Verify zoning on the land-use map and with counsel before the BOI filing; an industrial estate is the fallback.
MEDIUM	Plan B's extra ~35M THB over Plan A earns little in the model: payback takes ~3.8 years against ~3.2, and the adverse case is deeper.	Phase 0 prices each item against its lever (a PPA offer beside the purchase quote); the corridor is cheaper from the start.
MEDIUM	Lease terms and building ownership: a weak lease makes the building hard to finance.	A registered 30 to 50 year lease with renewal, building ownership and assignment rights; Thai counsel engaged in phase 0.
MEDIUM	Galvanics effluent and biomass emissions must pass the first factory license.	A zero-discharge design and a treatment building from the start, a dust collector and a 14 m stack in the drawings, and fuel contracts.
MEDIUM	Currency: Newbilt and Pheenix price in EUR, Sibert and Sillitoe in USD, and our costs are in THB.	Every quote states currency and validity; we price regionally in THB; hedging is decided with the investor.

Sources: business plan B, sections 11.2 and 13 (severities as the plan states them); revenue-model.md, section "Honest caveats"; roadmap.md, item 1; site-candidates.md.

A small founding team works with specialist vendors and a local printer

TEAM

Simona Meesaiyati

PROJECT LEAD

Leads management and the audio side.

Alexander Grabowski

TECHNICAL CONSULTANT

Leads the technical side: equipment and vendors, utilities, the building model, the traceability and QC specification, and the factory software.

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CONSULTING

Supports the project in a consulting capacity.

At launch we hire a galvanics process engineer and a cutting engineer (both on the critical path), a plant manager, two shifts of operators, QC, maintenance and sales: about 20 people at the start est., plus 1 to 2 for the cassette and CD-R lines.

PARTNERS

Ploy Printing

CHIANG MAI · PACKAGING

Supplies jackets, sleeves and inserts and intends to co-invest within the 40% open beside the lead investor; terms are not yet discussed. Its supply is priced at arm's length, and Ploy abstains on its own contract.

Payap University

CHIANG MAI · UNDER DISCUSSION

We are discussing joint student programs in mastering, lathe cutting, IT and business; nothing is agreed yet.

Advisers, phase 0

TO ENGAGE

A BOI-registered consultant, and Thai counsel for the lease, the company and the shareholder agreement.

VENDORS

VENDOR	SUPPLIES	ON FILE
Newbilt Germany	Duplex system and Classic presses	2024 quote EUR 200,500 for the Single 2.1, expired; Classic not priced
Pheenix Alpha Sweden	Galvanics: PASU, PPPU, PDPU, PMPB	No quote; priced at OMS's reference + 20%
Sibert UK	Stamper prep: VSF, VSP, VSC	USD 250k budget confirmed, October 2026
Sillitoe Australia	SDMS cutting system	List price USD 125k
Ploy Printing Chiang Mai	Print and packaging	Partner

At Making Vinyl Europe in Haarlem, September 30 to October 2, 2026, suppliers showed strong interest in full traceability. Pheenix offered references and a factory visit, OMS sent galvanics reference prices, and SST Frankfurt offered help. This is evidence from the supply side.

Sources: README, section "Team"; business plan B, sections 1, 12.1 and 12.2; equipment/pressing-line.md; equipment/galvanics.md; suppliers/vendor-landscape.md.

THE ASK AND NEXT STEPS

Approve phase 0 now; commit to Plan B in tranches once the gates clear

PHASE 0, NOW

1.3M to 2.6M THB

~USD 40k to 80k over 3 to 6 months, part of the plan price. It pays for the BOI consultant, Thai counsel for the lease, zoning and the shareholders' agreement, a soil test and the quotes.

ON OFFER TO CO-INVESTORS

Up to 40%

of the company, beside the lead investor's at least 60%, for Ploy Printing, the founders and others. At par it is ~87M THB of the ~217M share capital; the price is open (slide 13).

THEN PLAN B AT ~215M THB, CALLED IN TRANCHES (SHARE OF THE INVESTMENT BEFORE THE RESERVE) EST.

#	TRIGGER	COVERS	SHARE	M THB
0	Now	Phase 0 work	1 to 2%	1.3 to 2.6
1	BOI certificate, lease, zoning, soil, pricing validated	Deposits on every long-lead order	20 to 30%	~40 to 60
2	Building permit; build dates in writing	Construction, utility yard, utilities, balance payments	35 to 45%	~71 to 91
3	Building watertight; first machinery shipped	Fit-out, ZLD, owned PV and battery, crane, corridor, full metrology, software, cassette and CD-R	15 to 20%	~30 to 40
4	Metal path commissioned; first stampers	Working capital; the reserve from here on	8 to 12%	~16 to 24

THE QUOTES THAT FIRM THE NUMBERS

- [ ] Newbilt re-quote: Duplex with the EX 35, the Classic, build time
- [ ] Pheenix galvanics quote, against OMS's reference
- [ ] Sillitoe quote and build time; Sibert's itemized quotation
- [ ] Building RFQ to two or three Thai contractors, with the soil test
- [ ] Metrology quotes; solar and battery purchase quotes, a PPA offer beside them
- [ ] Biomass boilers from Getabec and Chinese makers; fuel offers

DECISIONS FOR THE INVESTOR

- The call schedule against the tranches, since the shareholders fund the plant as share capital with no bank loan
- The shareholders' agreement, covering the split of the 40%, the board, reserved matters, calls and tranche releases
- How quotes landing above the plan price are funded
- Each Plan B item weighed against its lever, CD replication before the BOI filing, and hedging of the EUR orders

What phase 0 delivers

The BOI filing, the lease heads of terms, the zoning answer, and quotes in place of the estimated blocks. Together they make the next version of the plan.

What the round pays for

Every long-lead order and the build, commissioned in sequence (metal path, Duplex, Classic) with the owned PV, crane and corridor. The first paying release is open: Q4 2028 to mid-2029.

What revenue pays for later

The second Duplex system (~15.4M THB at the midpoint est.), PV on the PV-ready office roof and canopies (~120 kWp, ~2.4M to 3.1M THB est.) and the phase 2 building.

Sources: business plan B, sections 8.3, 12.2, 14.1 and 14.2; total-investment.md, "Two plans" (shareholding and funding); roadmap.md, phases 0 to 2. Tranche amounts are the shares applied to Plan B's ~201.6M THB before the reserve (arithmetic). Three gates come before any order: market validation, the BOI certificate, and land (zoning, lease terms, soil).