



ASX ANNOUNCEMENT

29 April 2026

PATHKEY.AI TO ACQUIRE AI SEMICONDUCTOR DESIGN AND VERIFICATION PLATFORM

Highlights

- Pathkey.AI has entered into a binding share purchase agreement for a right to acquire 100% of Singapore-based Chipforge Pte Ltd (**Chipforge**), an AI-driven semiconductor hardware design and development technology company.
- Chipforge is developing an agentic AI platform that translates high-level design intent into verified, synthesisable hardware code, shortening chip development cycles that would otherwise take 12–24 months and multi-million-dollar expenditure.
- Powered by proprietary agent-based AI architecture, large-language-model functionality and closed-loop reflection methodology
- Significant synergies with PKY's AI trial and drug discovery platform, TrialKey
- No capital raising is contemplated in connection with the Acquisition.

Pathkey.AI Ltd (ASX: **PKY**) (**Company** or **Pathkey**) is pleased to announce that it has entered into a binding share purchase agreement (**Agreement**) with Chipforge and the holder of a majority of the issued capital in Chipforge (**Majority Holders**) to acquire 100% of the issued capital of Chipforge (**Acquisition**).

The Agreement grants the Company an irrevocable option to acquire 100% of Chipforge (**Option**), exercisable within two months of execution of the Agreement and subject to extension by a further two months on payment of a \$200,000 extension fee. Completion of the Acquisition remains subject to the conditions precedent summarised in Schedule 1.

Commenting on the Acquisition, Pathkey Chair, Shannon Robinson, said:

"By adding this complementary AI chip-design technology to our technology stack, we are materially strengthening our position as a leader in AI.

According to a recent article by McKinsey & Company¹, The global semiconductor market is forecast to reach around US\$1 trillion by 2030, driven by AI, data-centre expansion, edge computing, defence and next-generation compute workloads. Against that backdrop, owning chip design and verification IP is highly strategic.

This transaction accelerates our roadmap, deepens our technical moat, and positions us to capture a far greater share of value as semiconductor spending scales globally."

Overview of Chipforge

Chipforge is a privately held company incorporated in Singapore (Company Number 202556247M) developing an AI-powered chip design platform for semiconductor engineering. The platform is designed to materially reduce the time and cost of designing custom chips, one of the most expensive and time-consuming processes in modern technology.

Today, designing a custom chip can take 12 to 24 months and cost millions of dollars, largely because the work depends on a small global pool of highly specialised hardware engineers.

¹ <https://www.mckinsey.com/industries/semiconductors/our-insights/hiding-in-plain-sight-the-underestimated-size-of-the-semiconductor-industry>

The bottleneck sits in two stages. First, translating a design concept into the precise hardware code that defines how a chip will behave. Second, verifying that the design actually works as intended before it is committed to silicon. Verification alone routinely consumes more than half of a chip project's total budget and development timeline.

Chipforge applies AI agents across the full design workflow. Engineers describe what they want the chip to do, through specifications, diagrams or functional requirements, and the platform generates the underlying hardware design, builds the tests needed to verify it, and progresses the design through synthesis and implementation on FPGA hardware. The platform's roadmap extends this same workflow toward full Application-Specific Integrated Circuit (**ASIC**) development. What previously required large teams of senior engineers working over many months can be produced, validated and physically realised in a fraction of the time.

Once a customer has a verified hardware design, they hold a tangible, high-value asset. It can be prototyped on programmable hardware, licensed as reusable intellectual property, or progressed toward full chip manufacture. Chipforge is positioned to serve this need across defence, aerospace, critical infrastructure, universities and research institutions, and companies developing custom chips for AI, edge computing and embedded systems. **These are sectors where demand for sovereign, locally controlled chip design capability is growing.**

Chipforge is democratising chip design, lowering the cost, time and talent barriers that have historically restricted custom chip development to a handful of large players, and opening the process to a far wider base of commercial, government and research customers.

Ntuitive Licence

Chipforge's core technology is licensed to it under an exclusive, worldwide licence agreement (with a right to sub-license) with Nanyang Technological University in Singapore – Ntuitive Pte Ltd (**Ntuitive**) (**Ntuitive Licence Agreement**). Under the Ntuitive Licence Agreement, Chipforge has the exclusive, worldwide right to develop and commercialise products in reliance on the licensed intellectual property, which includes proprietary documentation and know-how.

The Ntuitive Licence Agreement contains minimum development and commercialisation commitments that Chipforge is required to meet in order to retain exclusivity, including:

- raising at least S\$1,000,000 by 2 February 2027;
- achieving a first commercial sale of a licensed product by 2 February 2028; and
- generating cumulative net revenue of S\$1,000,000 by 2 February 2031.

Annual licensing fees are payable to Ntuitive under the Ntuitive Licence Agreement, commencing at S\$20,000 per annum and increasing progressively to S\$50,000 per annum over a 16-year period.

Strategic rationale

Pathkey's principal activity is the development and commercialisation of AI technology applied to data-intensive industries. Its core platform, TrialKey, is a proprietary predictive AI engine designed to transform unstructured datasets into structured, model-ready inputs for probabilistic forecasting and decision optimisation. To date, this technology has been applied primarily to clinical trial design and optimisation.

Both TrialKey and the Chipforge platform are built around an agent-based AI architecture combining large-language-model functionality with neuro-symbolic reasoning to solve complex design optimisation problems. In each platform, AI agents generate candidate solutions, evaluate them against defined objectives and iteratively refine them through a structured reflection loop using reinforcement-driven optimisation:

- the TrialKey platform applies this framework to clinical trial design, exploring variations in eligibility criteria, endpoints and other protocol parameters to maximise the probability of trial success; and
- the Chipforge platform applies the same framework to semiconductor design, translating high-level design intent into chip architectures and systematically exploring alternatives against metrics including performance, power consumption and silicon area.

The Company considers that the Acquisition presents significant synergies through complementing its existing AI capabilities, including that:

- know-how developed in connection with TrialKey can be directly applied to the continued development of the Chipforge platform, and vice versa;
- TrialKey's methodology for ingesting unstructured information and organising it into structured inputs translates naturally to managing chip design changes and verification results within a controlled workflow; and
- the Acquisition extends the Company's AI activities from clinical development into chip design and engineering workflows, applying similar AI-assisted data and decision frameworks to another critical industry.

The Acquisition is consistent with the Company's previously disclosed strategy of pursuing complementary AI technology acquisitions as a core element of its growth strategy, following the completion of the Company's strategic review during the half-year ended 31 December 2025.

Acquisition Details

Subject to exercise of the Option and satisfaction (or waiver) of the conditions precedent summarised in Schedule 1, the Company has agreed to acquire 100% of the issued capital in Chipforge from the holders of Chipforge shares and parties entitled to be issued Chipforge shares (**Vendors**) for the consideration set out below (**Consideration**):

- 560,000,000 fully paid ordinary shares in the capital of the Company (**Consideration Shares**); and
- 150,000,000 performance rights convertible into shares on a one for one basis (**Performance Rights**) on or before the date that is 18 months following the date of issue, subject to satisfaction of the vesting milestones set out below:

Class	Number	Milestone
A	75,000,000	the Company announcing the demonstration of a minimum viable product developed in reliance on the Chipforge intellectual property within 9 months from the issue date, subject to verification by an independent expert from a recognised Australian or Singaporean university (to be determined by the Company) confirming that the product: • is a functional version of a product utilising the Chipforge intellectual property, or intellectual property developed in reliance on the Chipforge intellectual property; • delivers the core features necessary for end-users to experience the product's primary value proposition, as demonstrated through real-world use, testing and validation in a working environment; and • enables potential clients to verify functionality with respect to the core features of the product, being the efficient development of semiconductors and similar hardware.

B	75,000,000	The Company announcing entry into at least one binding commercial agreement leveraging the Chipforge intellectual property with a credible customer that will deliver revenue within 12 months from the issue date of the Class B Performance Rights.
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In addition to the issue of the Consideration, Chipforge has a facility in place under which it has drawn \$300,000, with an ability to draw up to an additional \$200,000, which will be repaid by the Company on Completion of the Acquisition.

Funding and use of funds

The Company's current cash position is approximately \$3,260,000 as at 31 March 2026 and the Company anticipates receiving R&D rebates and other income totalling approximately \$840,000 over the next 12 months.

It is not currently anticipated that the Company will undertake a capital raising in connection with the Acquisition. Based on its existing cash reserves and expected receipts, the Company considers that it is well funded to support the continued development of both the TrialKey and Chipforge platforms, together with its working capital requirements, over the next 12 months.

The Company's proposed application of funds over the next 12 months is as follows:

Use of funds (next 12 months)	Amount (\$)
Ongoing development of the TrialKey platform	1,550,000
Development of the Chipforge platform	1,500,000
Working capital and corporate administration	700,000
Estimated transaction costs	350,000
TOTAL	4,100,000

The above allocation is a statement of current intentions as at the date of this announcement. Intervening events may alter the way funds are ultimately applied by the Company.

Although the table above quantifies direct expenditure on the TrialKey and Chipforge platforms separately, the Company expects significant cross-platform benefit. Engineering advances made on one platform, in particular LLM-based analysis and output generation, automated verification, dataset construction and pipeline architecture, are expected to be directly applicable to the other. The direct expenditure shown therefore understates the aggregate economic investment in each platform.

Timetable

The current proposed timetable is as follows:

Event	Date
Announcement of Acquisition	29 April 2026
Dispatch Notice of Meeting	14 May 2026
General meeting	15 June 2026
Completion of Acquisition	18 June 2026

* The above timetable is indicative only and subject to change

Capital Structure

	Shares	Options	Performance Rights
Current issued capital	607,077,750	300,251,467	Nil
Consideration	560,000,000	Nil	150,000,000
TOTAL	1,167,077,750	300,251,467	150,000,000

Note: Refer to page 3 for the vesting milestones applicable to the Performance Rights.

Activities post-Acquisition

The Company's TrialKey platform will continue to be developed and operated from Australia. The Chipforge business will continue to be operated from Singapore, with ongoing access to the Ntuitive Licence Agreement and the supporting research partnership with Nanyang Technological University.

Expenditure on the TrialKey platform and Chipforge platform over the next 12 months will be allocated across technical development and commercial activities, as set out below:

Trialkey platform	Chipforge platform
Development of an AI-driven capability to automatically generate, score and refine trial inclusion/exclusion criteria under feasibility constraints, producing baseline versus optimised protocol comparisons. Development of an AI-driven validation of generated protocol outputs against clinical and feasibility criteria, with iterative error correction. Growth of the Company's proprietary clinical trial dataset beyond 500,000 trials, with improved automated data ingestion and feature engineering. Incorporation of biological and translational signals (including mechanism of action and biomarker profiles) into the core predictive model to improve output quality; and Improvements to platform stability, scalability and performance, with enhanced visual outputs and guided workflows. Rebuilding the Company's business development function, attendance at key industry conferences, and expansion of partnerships with pharmaceutical companies, clinical research organisations, government bodies and academic institutions.	Building the core platform and AI engineering capability, with secure hosted infrastructure to support pilot delivery and early customer deployments (and, over time, architecture designed to accommodate sovereign and air-gapped deployment requirements). Development of an LLM-based engine that reliably translates high-level design intent into structured hardware description language code. Delivery of automated verification workflows that check generated chip designs against functional specifications and regenerate outputs where errors are detected. Construction of proprietary semiconductor design datasets to improve model reliability, speed and accuracy. Delivery of a working pilot on the Chipforge platform. Structured engagement with universities and engineering programs to generate validation projects, platform feedback, case studies and engineering capability.

What's Next

The Company intends to complete confirmatory due diligence on Chipforge over the Option Period and dispatch a notice of meeting to shareholders in due course seeking the approvals required to complete the Acquisition, including approval under Listing Rule 7.1 for the issue of the Consideration Shares and Performance Rights.

The Company currently expects the conditions precedent to the Acquisition to be satisfied, and the Acquisition to complete prior to the end of FY26.

Authorised for release to ASX by the Board of Pathkey.AI Ltd.

For further information, please contact:

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About Pathkey.AI Ltd

Pathkey.AI Limited (ASX: PKY) is an Australian technology company with a proprietary large language model platform, TrialKey. The TrialKey Platform has an internal data-processing pipeline capable of ingesting large volumes of unstructured information, extracting key attributes and generating features suitable for downstream machine learning and AI models. TrialKey's architecture is domain agnostic and designed to support complex design and optimisation challenges across multiple sectors.

Schedule 1 – Material terms of the Agreement

Clause	Summary
Option	Pathkey has an exclusive Option to acquire 100% of the issued capital of Chipforge, exercisable within two months of the date of the Agreement by written notice to Chipforge (Option Period), which may be extended by a further two months on payment of an extension fee of \$200,000. During the Option Period, Pathkey is entitled to conduct confirmatory due diligence on Chipforge and the Chipforge assets
Consideration	The aggregate consideration for the Acquisition comprises: (a) 560,000,000 Consideration Shares at a deemed issue price of A\$0.022 per share, to be issued to the Chipforge Stakeholders; (b) 150,000,000 Performance Rights, to be issued to the Chipforge Stakeholders (refer to page 3 for the applicable vesting milestones), (together, the Consideration Securities). In addition to the issue of the Consideration Securities, the Company will repay on or around Completion up to A\$500,000 of principal debt owing under the Chipforge convertible notes (Chipforge Debt).
Conditions Precedent	Subject to Pathkey exercising the Option, Completion is conditional on the satisfaction (or waiver as permitted under the HOA) of the following conditions precedent within 45 days of Option exercise: (a) Due diligence: completion of financial, legal and technical due diligence by Pathkey on Chipforge and its assets, to the satisfaction of Pathkey; (b) ASX approvals: Pathkey having obtained the required ASX approvals and confirmations in respect of the Acquisition; (c) Shareholder approval: the Company's shareholders approving the issue of the Consideration Securities under ASX Listing Rule 7.1 and, if required, the Corporations Act; (d) Regulatory approvals: the parties obtaining all other necessary regulatory approvals and waivers; (e) Native consent: Chipforge obtaining Native's consent to the change of control of Chipforge; (f) No liabilities: Chipforge having, or being in a position to have at Completion (subject to Pathkey satisfying its obligation in respect of the Chipforge Debt), no liabilities, debts, loans or other encumbrances; (g) Ancillary Documents: execution by all relevant parties of the ancillary documents required to give effect to the Acquisition, including minority holder agreements, deeds of waiver and release from parties entitled to be issued Chipforge shares and the declaration of trust and nominee shareholder agreement referred to below.
Nominee arrangement	Following Completion, the Residual Shares will be held beneficially on behalf of the Company by the Nominee, pursuant to a declaration of trust in favour of the Company and a nominee shareholder agreement, under which the Company will have a right to revoke the trust and to direct the transfer, voting and dividend rights attaching to the Residual Shares.

Director nomination right	The Chipforge board (as at the date of the Agreement) has the right, exercisable at any time within 12 months of Completion, to nominate one representative of Chipforge to be appointed as a non-executive director of the Company, subject to the nominee not being disqualified to act as a director under the Corporations Act or the ASX Listing Rules and to the receipt of customary consents and supporting documentation. No such nomination has been made at the date of this announcement.
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The HOA otherwise contains customary terms and conditions for an agreement of its kind, including with respect to exclusivity, confidentiality, together with warranties and indemnities given by Chipforge and the majority holders of Chipforge in favour of Pathkey, subject to customary limitations of liability.