

ASX Announcement
30 October 2025

Quarterly Activities and Cashflow Report

Highlights

- Company retains strong balance sheet with A\$6.0 million in cash holdings and is debt free.
- Major facility upgrade completed and Beneq TFS 200 ALD system installed, tested and commissioned at 2DG's research facility in Israel.
- Dual ALD-based graphene R&D activities underway at 2DG and Tel Aviv University facilities.
- Graphene interconnect development program enters next phase with precursor testing and optimisation work.

Adisyn Ltd (**ASX: AI1**) ("**Adisyn**" or the "**Company**") is pleased to provide its Quarterly Activities and Cash Flow Report for the period ending 30 September 2025, during which the Company made significant advancements developing its revolutionary graphene-based technology to transform semiconductor performance.

On 17 July 2025, Adisyn announced the successful installation, commissioning and calibration of its newly acquired Beneq TFS 200 Atomic Layer Deposition (ALD) system, completed by wholly owned subsidiary, 2D Generation ("2DG")¹.



Figure 1: Successfully commissioned Atomic Layer Deposition system at 2DG's lab at Yakum Industrial Park, Israel

¹ Refer to ASX Announcement dated: 17 July 2025

ALD machines are widely used in the semiconductor industry to deposit extremely thin layers (down to an atom thickness) of material on to chips. ALD systems are found in most advanced semiconductor fabs around the globe and 2DG specifically selected a model customised by Beneq.

2DG ordered an ALD with specific benefits, including:

- Plasma options for wafer surface treatments and potential introduction of reactive gases that catalyse graphene growth;
- Semi-automatic load lock enabling room-temperature sample exchange, reducing heating/cooling times;
- A reaction chamber suitable for wafer-scale processing, with enhanced process control, wider operational temperature thresholds, and significantly higher throughput compared to previously used equipment.

These capabilities are essential for advancing the Company's proprietary low-temperature graphene deposition process, which aims to overcome existing performance barriers in semiconductor interconnects.

This system is now operating in tandem with the Beneq TFS 200 system located at Tel Aviv University's Jan Koum Center for Nanoscience and Nanotechnology. Together, the dual-system configuration allows 2DG to run concurrent testing and accelerate the validation of graphene films across various substrates, layer structures and operating conditions.

The commissioning follows the successful completion of a substantial infrastructure upgrade at the 2D Generation facility, including environmental control systems and high-specification electrical works to support the precision demands of ALD-based research.

Graphene Interconnect Development - Phase One: Precursor Development and Graphene Growth

In August, the Company announced the beginning of a major phase of technical activity focused on optimising its patented low-temperature graphene technology for its newly acquired Beneq TFS 200 Atomic Layer Deposition (ALD) system at its R&D facility in Israel².

Precursor Development and Graphene Growth has been identified as a key development phase in which the results of several years of foundational research and internal experimentation are being validated through controlled testing and iterative optimisation. The goal is to confirm the practical feasibility of Adisyn's proprietary low-temperature graphene growth process under semiconductor-relevant conditions.

² Refer to ASX Announcement dated: 6 August 2025

Following the commissioning of the Beneq TFS 200 ALD system in Israel and parallel access to a similar system in Tel Aviv University, Adisyn commenced the next critical phase of graphene development.

The first phase of activity is focused on precursor development and involves several interdependent steps designed to establish the graphene growth sequence (Figure 2). These include:

- **Plasma Pre-Clean:** This crucial initial step removes contamination from the surface enabling a clean substrate for the subsequent growth of ultra-thin atomic level films.
- **Deposition Sequence:** The graphene growth process begins by mixing gases with selected organic precursors to co-react and form graphene films.
- **Post-Anneal:** After deposition, annealing is used to enhance the crystalline quality and electrical properties of the graphene.
- **Characterisation and Feedback:** Resulting films are evaluated through rigorous testing, feeding into a continuous test-refine cycle to optimise growth parameters.

Process sequence

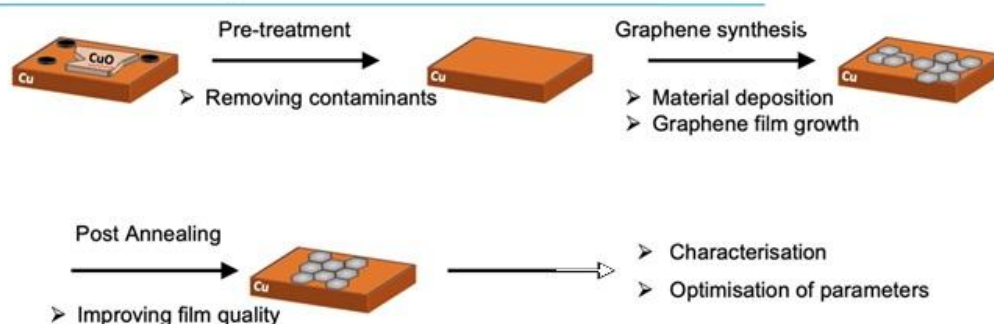


Figure 2: Process sequence for Phase 1 development activities

This cycle will be repeated numerous times to assess at least three identified precursor candidates, with the aim of determining optimal growth conditions and validating repeatability.

The Beneq system is critical to this progress, enabling:

- Heated precursor lines for low-volatility materials;
- Use of multiple reactive gases;
- Plasma-enhanced surface activation;
- Flexible temperature controls for film tuning;
- Cleaner deposition environment with ultra-low pressure chamber.

This phase is expected to continue during the balance of 2025 and into early Q1 2026, at which point the project will move into a development phase focused on:

- **Recipe Development:** Optimising pre-clean and deposition cycles for uniformity and yield;
- **Repeatability Testing:** Assessing reproducibility of high-quality graphene growth;
- **Wafer-Scale Integration:** Moving to larger format substrates;
- **Industry Collaboration:** Engaging partners for commercial trialling and joint development.

Adisyn believes this low-temperature ALD graphene growth process, if scalable and repeatable, has the potential to unlock a new generation of semiconductor interconnects.

The Company will continue to provide regular updates as development milestones are achieved.

Adisyn Services Update

During the quarter, the Adisyn Services business unit continued to improve and was cashflow break even.

Adisyn Services is well positioned to leverage the growth in Australian SME defence businesses which require higher-value managed IT and cyber security services.

Technology Overview: Graphene Interconnects for a New Era of Computing

2DG is developing an innovative semiconductor interconnection solution based on graphene – a single-layer, two-dimensional carbon material with exceptional electronic, thermal, and mechanical properties.

Using an ALD machine to produce graphene at relatively low temperatures is unique. This innovative approach allows the Company to potentially create a graphene-based interconnect in a low temperature methodology, preventing device damage and yield loss.

The emergence of this technology opens the door to produce the next generation of semiconductors capable of further miniaturisation, lower power consumption, less heat and greater computational power.

2D Generation's innovative technology centres around the aim of improving the performance and capabilities of a semiconductor component known as the interconnect.

About the interconnect:

- An interconnect in a semiconductor refers to the conductive pathways that connect different components or regions within an integrated circuit (IC).
- These interconnects are crucial for the functionality of the IC as they facilitate the flow of electrical signals between transistors, capacitors, resistors, and other elements on the chip.

- Interconnects can be made of various materials, typically metals like aluminium or copper, and they can be implemented in different layers within the semiconductor structure.

As IC's have become more complex, with smaller and more densely packed features, the design and materials used for interconnects are increasingly posing technical challenges.

Interconnects have traditionally consisted of copper due to the metal's superior conductivity. However, at a scale of 10 nanometres (nm) or below, copper begins to experience increased electrical resistance (meaning it progressively loses its conductive properties). With modern chips now approaching 2-3nm the use of copper interconnects poses a significant obstacle. As the metal is refined to smaller scales it requires more power and produces more heat to, effectively pushing the metal to its physical performance limits.

Graphene is an ideal material to solve this challenge as it is particularly strong, heat-resistant, has up to 200x higher electron mobility than copper and experiences minimal resistivity at small scales.

The interconnect field has emerged as a critical technological barrier and overcoming this challenge is recognised as a major opportunity within the industry, promising accelerated rates of performance and continued miniaturisation.

Corporate

As at 30th September 2025, Adisyn possessed a strong balance sheet with A\$6.0m in cash and remains debt-free.

The Company reported cash receipts of ~\$997k. Total revenue for the quarter was \$1.012m. Net cash used in operating activities was \$732k.

In accordance with ASX Listing Rule 4.7C.3, payments in the September quarter to related parties of approximately \$211k included at item 6 in the attached Appendix 4C comprised salaries and fees paid to executive and non-executive directors and their related entities.

-ENDS-

This announcement has been approved for release by the board of Adisyn Ltd.

Further Information:**Investors**

Blake Burton
Managing Director, Adisyn
E: investors@adisyn.com.au
T: 1300 331 888

Media

David Tasker
Chapter One Advisors
E: dtasker@chapteroneadvisors.com.au
T: +61 433 112 936

About Adisyn

Adisyn is a highly innovative ASX-listed company specialising in the development of graphene-based solutions for the semiconductor industry and the provision of managed IT services for the SME market. The Company's graphene technology is focused on advancing a patented low-temperature Atomic Layer Deposition (ALD) process to enable direct graphene growth on semiconductor wafers. This technology is anticipated to address the performance limits of copper interconnects and deliver faster, stronger, and more energy-efficient computer processing. The Company's broader technology platform is supported by Adisyn Services which provides managed IT solutions, including cloud, cybersecurity and artificial intelligence, primarily to Australian SMEs.

Forward-looking statements:

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices, or potential growth of Adisyn Ltd are, or may be, forward-looking statements. Such statements relate to future events and expectations and as such, involve known and unknown risks and uncertainties. These forward-looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties, and other factors, many of which are beyond the Company's control, and which may cause actual results to differ materially from those expressed in the statements contained in this release.

The Company cautions shareholders and prospective shareholders not to put undue reliance on forward-looking statements, which reflect the Company's expectations only as of the date of this announcement. The Company disclaims any obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity

Adisyn Ltd

ABN

30 155 473 304

Quarter ended ("current quarter")

30 September 2025

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	997	997
1.2 Payments for		
(a) research and development	(69)	(69)
(b) product manufacturing and operating costs	(660)	(660)
(c) advertising and marketing	(13)	(13)
(d) leased assets	(21)	(21)
(e) staff costs	(855)	(855)
(f) administration and corporate costs	(486)	(486)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	47	47
1.5 Interest and other costs of finance paid	(7)	(7)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (VAT Refund)	335	335
1.9 Net cash from / (used in) operating activities	(732)	(732)
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(47)	(47)
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (Payments – Hire Purchases)	(24)	(24)
2.6	Net cash from / (used in) investing activities	(71)	(71)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(1)	(1)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (Lease Payments)	(98)	(98)
3.10	Net cash from / (used in) financing activities	(99)	(99)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	6,958	6,958
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(732)	(732)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(71)	(71)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(99)	(99)
4.5	Effect of movement in exchange rates on cash held	6	6
4.6	Cash and cash equivalents at end of period	6,062	6,062

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,553	949
5.2	Call deposits	4,509	6,009
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	6,062	6,958

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	211
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<p><i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i></p> <p>Related to director fees, salaries and wages plus superannuation of all related parties.</p>		

7.	Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i> <i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	27	27
7.4	Total financing facilities	27	27
7.5	Unused financing facilities available at quarter end		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
7.1 Loan Facilities: Included under loan facilities are: Not applicable			
7.2 Credit Standby arrangements: Not applicable			
7.3 Other: Other is the carrying amount of equipment finance leases with a variety of financiers with varying maturity dates and a weighted average interest rate of 12.82%.			

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(732)
8.2	Cash and cash equivalents at quarter end (item 4.6)	6,062
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	6,062
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	8.28
<i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i>		
8.6	If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: N/A		
8.6.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: N/A		

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: ..30 October 2025.....

Authorised by: ...The Board of Directors.....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.