

30 April 2025

March 2025 Quarter Activities Update

Highlights

- Appointed Industry Advisory Board led by laser luminaries Prof. Steven DenBaars and Dr Richard Craig to accelerate commercial advancement and technical roadmap.
- Demonstrated world-record performance of its single-mode gallium nitride (GaN) lasers, showcasing 1250 milliwatts of power from a single MOPA laser chip, while maintaining single-spatial mode.
- Unveiled next-generation gain chips at the world's largest photonics conference, Photonics West, and filed three new US provisional patents.
- Received A\$120,000 order from a repeat customer for highly specialised GaN laser products following successful demonstration of performance improvements over commercially available laser diode bars.

Global semiconductor developer BluGlass Limited (**ASX: BLG**) provides the following update and Appendix 4C Quarterly Report for the three months ended 31 March 2025 (Q3 FY25).

CEO Jim Haden said: *"Our achievements over the quarter demonstrate an inflection point in our commercial journey. To support this important phase of growth, we established an advisory board chaired by two of the world's most esteemed GaN pioneers. Their expertise in photonics, semiconductors and commercial scaling will be instrumental as we convert our technical leadership into long-term commercial success and scale BluGlass into a global leader in visible laser technologies."*

"We continued to demonstrate the excellence of our technology with world-first innovations and record-breaking laser performance, receiving strong interest from both existing and prospective customers. We strengthened our IP portfolio with new provisional patents protecting novel power, precision and tunability architectures, further expanding our competitive edge."

"Our technological breakthroughs solve critical pain points in industries that depend on high-power lasers, combined with high-fidelity for precision applications. Our innovations in low-noise, single-mode, and MOPA architectures drive the precision, scalability, and integration the industry demands, opening doors to commercial deployment at scale."

"During the quarter we received a repeat order in support of a government program highlighting GaN laser technology's ability to solve critical defence challenges. Our high-power, high-fidelity lasers enable advanced capabilities, from underwater communications to atmospheric LiDAR and optical countermeasures, positioning us for growth in dual-use applications. We're building on this collaboration to pursue next-generation defence solutions that demand the precision and stability our lasers uniquely deliver."

Industry Advisory Board

BluGlass established an Industry Advisory Board led by laser pioneers Professor Steven DenBaars and Richard Craig, to accelerate BluGlass' technical roadmap and commercial advancement of GaN laser portfolio for the global quantum, defence, and biotech markets. The Industry Advisory Board will provide strategic guidance on

technology development, market positioning, and commercial partnerships to augment BluGlass' position as a leader in GaN laser solutions and accelerate its go-to-market strategy. The Board will complement and leverage technical advice provided by BluGlass' SSLEEC and CLAWS Hub Consortium advisers; Nobel Laureate and tech titan Prof. Shuji Nakamura, Prof. Fred Kish, and Prof. John Muth.

World-record single-mode GaN laser performance

BluGlass achieved a world-record 1250 milliwatts of power from a single GaN laser chip while maintaining single-spatial mode. This was accomplished using a 450nm single-mode master oscillator with an integrated power amplifier in a single monolithic chip (SM-MOPA), surpassing BluGlass' previously reported 750 mW result by over 67%, as presented at Photonics West 2025. This breakthrough in high-power single-mode MOPA technology delivers the precision and compactness of a single-mode laser alongside the brightness and performance of high-power output ideal for next-generation applications in defence, aviation, quantum sensing, space communications, and underwater LiDAR.

BluGlass also advanced its distributed feedback (DFB) laser technology, increasing output from 100 mW to 450 mW while preserving near single-frequency output and high signal-to-noise ratio. Designed for wafer-scale fabrication, these innovations reduce cost and complexity while boosting the power, scalability, and versatility of visible GaN lasers, delivering high-fidelity at high power.

Unveiled next-generation gain-chips at Photonics West

BluGlass showcased high-performance GaN DFB laser results in a technical paper presented at leading international conference, Photonics West in January. The paper highlighted breakthrough results and novel device architectures designed to enhance the power and precision of visible GaN lasers. These innovations address key application challenges across quantum, defence, and biotech markets, with demonstrated near single-frequency emission from violet to aqua-marine wavelengths, side-mode suppression ratios exceeding 40 decibels, and spectral linewidths under 3 picometers.

In addition to the advanced DFB laser results, BluGlass unveiled novel semiconductor optical amplifier (SOA) gain chips. The paper also featured a breakthrough integrated GaN master oscillator power amplifier (MOPA), which achieved 750 mW output in a single spatial mode (before reaching the world-record 1250 mW performance noted above). By replacing traditional external lens and optical alignment systems with a monolithic integrated design, the MOPA device increases power while reducing complexity and form factor, offering a compact, high-performance solution for next-generation photonics applications.

Files three new US patents

In January, BluGlass filed three US patent applications (provisional patents) for next-generation high-power, tunable gallium nitride (GaN) lasers, protecting novel capabilities and device architectures designed to address key application challenges and enhance power and versatility of visible gallium nitride (GaN) lasers where power, precision, and tunability are required.

The three US provisional patents ringfence the company's novel high-peak power continuous wave tunable GaN lasers, for use in three critical markets:

- Aerospace, Marine, and Defense Applications
- Quantum Computing and Quantum Sensing Applications
- Biomedical and Biotech Applications

Receives \$120k order from repeat customer

BluGlass received a A\$120,000 order from the College of Optics and Photonics (CREOL) at the University of Central Florida, a repeat customer, for its semi-custom GaN laser diode bar products. The order followed successful trials demonstrating significant performance gains using BluGlass' laser bars in a Coherent Beam Combining (CBC) array, where their designs delivered superior coherence and phase locking compared to commercial alternatives. This advanced CBC setup enables high-power, single-mode blue laser beams with exceptional phase stability and narrow linewidths, critical for applications such as underwater and aviation LiDAR, space communications, and quantum sensing technologies.

Financials

Revenue for the March quarter was \$1.34 million, comprising payments under the NCSU CLAWS Hub contract, laser orders, and foundry services for a European wafer developer; as well as for development activities carried out across its Australian and US facilities in FY25.

BluGlass' quarterly research and development expenses were \$2.19 million, inclusive of salaries, materials, and fabrication costs. Payments to related parties in Q3 FY25 were \$102k encompassing Chair and Non-Executive Director fees.

Activity Undertaken	Amount paid during the quarter \$'000
Laser product development	\$2,166
RPCVD development	\$22
Total direct expenditure	\$2,188

Outlook

CEO Jim Haden said: *“Our primary focus over coming months will be to convert our growing pipeline into high-value engagements and partnerships, building on the momentum of the past 18 months as we rapidly advance our technical and commercial roadmaps.*

“Our commercial pipeline is strong, with around 26 active opportunities across quantum, defence, aviation, biomedical and scientific markets with highly qualified customers and partners, representing \$90 – 100 million in potential project value. The pipeline includes projects at all stages of development, from proposals and tenders through to contract negotiation.

“While negotiations, particularly with OEMs and government partners, can take time to mature, we are strategically positioning ourselves to secure long-term leadership in high-growth sectors, targeting revenue-generating projects that deliver follow-on manufacturing contracts. Overall, we are targeting a \$2 billion serviceable market by 2025 and \$38 billion total addressable market by 2033.”

This announcement has been approved for release by the BluGlass Board.

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About BluGlass

BluGlass Limited (ASX:BLG) is a leading supplier of GaN laser diode products to the global photonics industry, focused on the industrial, defense, bio-medical, and scientific markets.

Listed on the ASX, BluGlass is one of just a handful of end-to-end GaN laser manufacturers globally. Its operations in Australia and the US offer cutting-edge, custom laser diode development and manufacturing, from small-batch custom lasers to medium and high-volume off-the-shelf products.

Its proprietary low temperature, low hydrogen, remote plasma chemical vapour deposition (RPCVD) manufacturing technology and novel device architectures are internationally recognised, and provide the potential to create brighter, better performing lasers to power the devices of tomorrow.

Appendix 4C

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

Name of entity

BluGlass Limited

ABN

20 116 625 793

Quarter ended ("current quarter")

31 March 2025

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	1,361	5,582
1.2 Payments for		
(a) research and development	(1,565)	(4,870)
(b) product manufacturing and operating costs		
(c) advertising and marketing	(96)	(285)
(d) leased assets	(355)	(1,051)
(e) staff costs	(2,346)	(6,962)
(f) administration and corporate costs	(318)	(1,208)
1.3 Dividends received (see note 3)		
1.4 Interest received	7	59
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives	-	5,373
1.8 Other (provide details if material)		
1.9 Net cash from / (used in) operating activities	(3,312)	(3,362)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment	(543)	(984)
(d) investments		
(e) intellectual property		

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
	(f) other non-current assets (security deposits)		(16)
2.2	Proceeds from disposal of:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment	-	7
	(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 (provide details if material)		
2.6	Net cash from / (used in) investing activities	(543)	(993)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	9	15
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		
3.5	Proceeds from borrowings	1,949	3,448
3.6	Repayment of borrowings	-	(2,648)
3.7	Transaction costs related to loans and borrowings	-	(169)
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	1,958	646
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,794	5,573
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,375)	(3,425)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(543)	(993)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,020	708
4.5	Effect of movement in exchange rates on cash held	(6)	27
4.6	Cash and cash equivalents at end of period	1,890	1,890

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	1,624	3,576
5.2	Call deposits	266	219
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)	1,890	3,795

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	102
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

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.

7. Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. 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	1,949	1,949
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 Total financing facilities	1,949	1,949
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 or are proposed to be entered into after quarter end, include a note providing details of those facilities.		
A secured loan agreement from Radium Capital, with an annual interest rate of 15% and a maturity date of 31 December 2025. Borrowed against FY25 half year R&D rebate.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(3,312)
8.2 Cash and cash equivalents at quarter end (item 4.6)	1,890
8.3 Unused finance facilities available at quarter end (item 7.5)	
8.4 Total available funding (item 8.2 + item 8.3)	1,890
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	0.6
<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?	
1) Answer: The company expect to have funds to meet its operating cashflows for the following reasons: <ol style="list-style-type: none"> 1. In April, the Company borrowed \$1.1 million against its FY25 Q3 R&D grant, on the same terms and conditions as the loan facility outlined in item (7) above. The Company retains the capacity to draw further funds if required. 2. The Company is currently in a trading halt pending the completion of a capital raising. A separate announcement regarding the capital raising will be made shortly. 3. The Company plans to generate revenue through product and project sales. 	
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: Yes, please refer to 8.6.1	

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: Yes, the Company expects that the proceeds from the capital raise, together with anticipated product and project sales and access to R&D funding, will provide sufficient working capital to meet its operational objectives. A separate announcement regarding the outcome of the capital raising will be made shortly.

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 April 2025

Authorised by: By the Board
(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.