



Quantum precision - the new frontier in visible lasers

Pitt Street Research Semiconductor Conference

BluGlass Limited (ASX:BLG), May 2025

BLUGLASS

FORWARD LOOKING STATEMENT

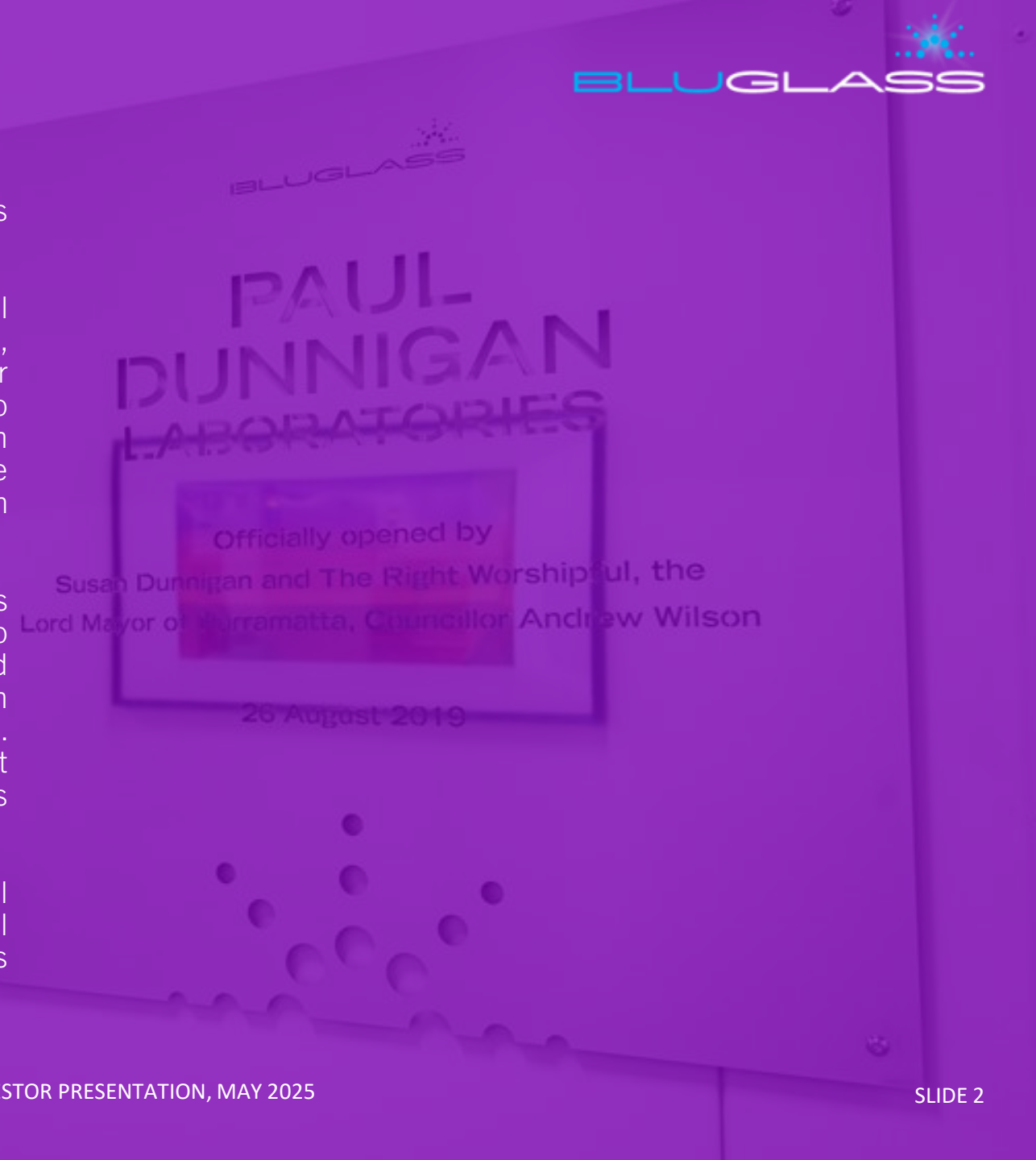


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Information on Service Addressable Markets (SAM) is based on internal BluGlass modelling and assumptions, both of which depend on successful R&D outcomes and results achieved within estimated timetables. BluGlass recommends a cautious interpretation be taken by investors.



WHO WE ARE: THE LEADING PURE PLAY GaN LASER SUPPLIER



BluGlass is one of only a handful of global GaN laser suppliers, with rapidly growing demand and high-barriers to entry

WAVELENGTHS

Visible GaN lasers are an emerging technology that is disrupting advanced industries and enabling new markets due to quantum leap in performance and precision



APPLICATIONS

BLUGLASS IN 2025



Global leader in visible lasers for high-fidelity and precision applications

Industry-leading narrow-line width GaN DFB and single mode MOPA lasers



World-record performance

State-of-the-art single-mode GaN laser performance - for next-gen quantum, aerospace, & defence applications



Launched gain-chips at Photonics West

Next-generation gain-chips unveiled at the world's largest photonics conference, accelerating industry adoption



Expanding world-leading IP

Strengthening competitive edge with new provisional patents protecting novel power, precision, and tunability architectures



Growing opportunity pipeline

Diverse portfolio of high-value engagements across defence, aerospace, quantum, and medical markets



Tech titan advisory board

Strategic guidance from a world-class advisory board with deep expertise across photonics, semiconductors, and commercial scaling.

Industry is choosing
BluGlass to develop
next-generation power
and precision applications
driving new frontiers in
quantum, defence and
aerospace

GROWING MOMENTUM - \$6M+ IN RECENT CONTRACT WINS



\$2.9M

Won A\$2.9M US Department of Defense (DoD) sub-contract with Microelectronics Commons CLAWS Hub. To advance BluGlass laser capabilities in key dual-use markets: quantum, defence, commercial aviation, bio-medical and sensing

\$1.2M

Entered multi-phased JDA with US semiconductor pioneer to develop novel Photonic Integrated Chips (PICs). Secured A\$1.2M for first phase of development, entered follow-on master supply agreement for commercialisation in ~\$5B by 2030 market.

\$1.9M

Secured single largest customer payment of \$A1.93 million by European wafer customer for transfer of non-laser IP rights, developed under paid foundry contract

MOU

MOU with Applied Energetics to combine high-performance solutions and expertise across a wide range of emerging technologies

MICROELECTRONICS COMMONS ACCELERATES BLG's COMMERCIAL DISCUSSIONS

BLG IS A COMMERCIAL PARTNER IN CLAWS



- US Department of Defense allocated \$2B to 8 regional Hubs in ME Commons
- CLAWS Hub awarded US \$63M for core development work in FY24 & FY25



BLG AWARDED AU\$5.5M

- BluGlass awarded A\$2.6 & \$2.9M for core development contracts across FY24 & FY25.
 - Contracts for FY26-FY28 TBA



Five-year US Department of Defense (DoD) program established to accelerate the Lab-to-Fab transition & produce next-gen microchips at scale



Program helps unlock government, prime, & commercial relationships with key US players across next gen critical defence capabilities, dual-use, aerospace, sensing, & quantum applications

CLAWS HUB LEAD & MEMBERS

LEAD

**NC STATE
UNIVERSITY**

MEMBERS

ADROIT MATERIALS

BLUGLASS



COHERENT



kyma
technologies



**NORTH CAROLINA
AGRICULTURAL AND TECHNICAL
STATE UNIVERSITY**

MACOM®

BLUGLASS

LASER TECHNOLOGY UNDERPINS GLOBAL MEGATRENDS

US \$38B Market

Defense &
Space

US\$11B

Defence laser systems
market by 2033

Source: Straits Research, Gartner
Insights, Goldman 2024

Quantum &
Sensing

US \$6B

Quantum sensing
market by 2030

Source: McKinsey & Company
2024

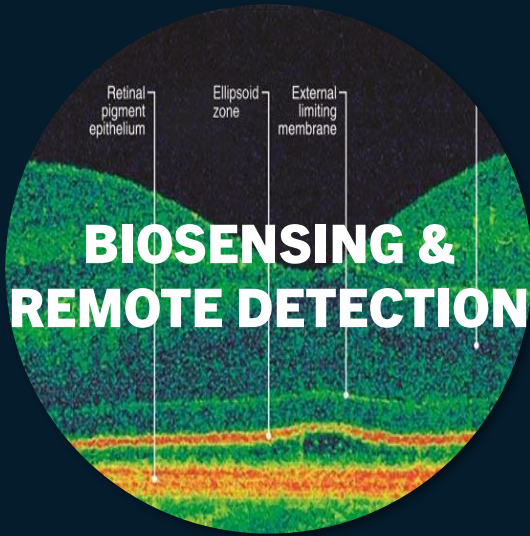
Healthcare &
BioTech

\$21B

Market by
2033

Source: Spherical Insights 2024,
The Business Research 2024

DEFENCE LASER SYSTEMS - A US \$11B OPPORTUNITY BY 2033



The quantum sensing market is projected to experience explosive growth to reach US\$1 billion by 2030 and \$6 billion by just 2040, as its advantages both disrupt existing at the same time as forging new markets that rely on sensor technology, according to recent [McKinsey analysis](#).



Quantum sensing

\$1B–\$6B

estimated market size by 2040

\$0.7B

invested
as of Dec 2023

48

start-ups
as of Dec 2023



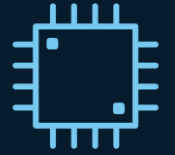
Quantum computers hold the potential to drive remarkable progress in industry & high-tech, with companies already exploring capabilities to develop innovations such as lighter, more powerful batteries for EVs, new medicines, cryptography, and artificial intelligence.



Visible lasers play key roles in creating Qubits (rather than ordinary bits), trapping, cooling, and decelerating atoms and ions.



Multiple tunable lasers with multiple frequencies are needed to interact with key materials for creating and controlling qubits.

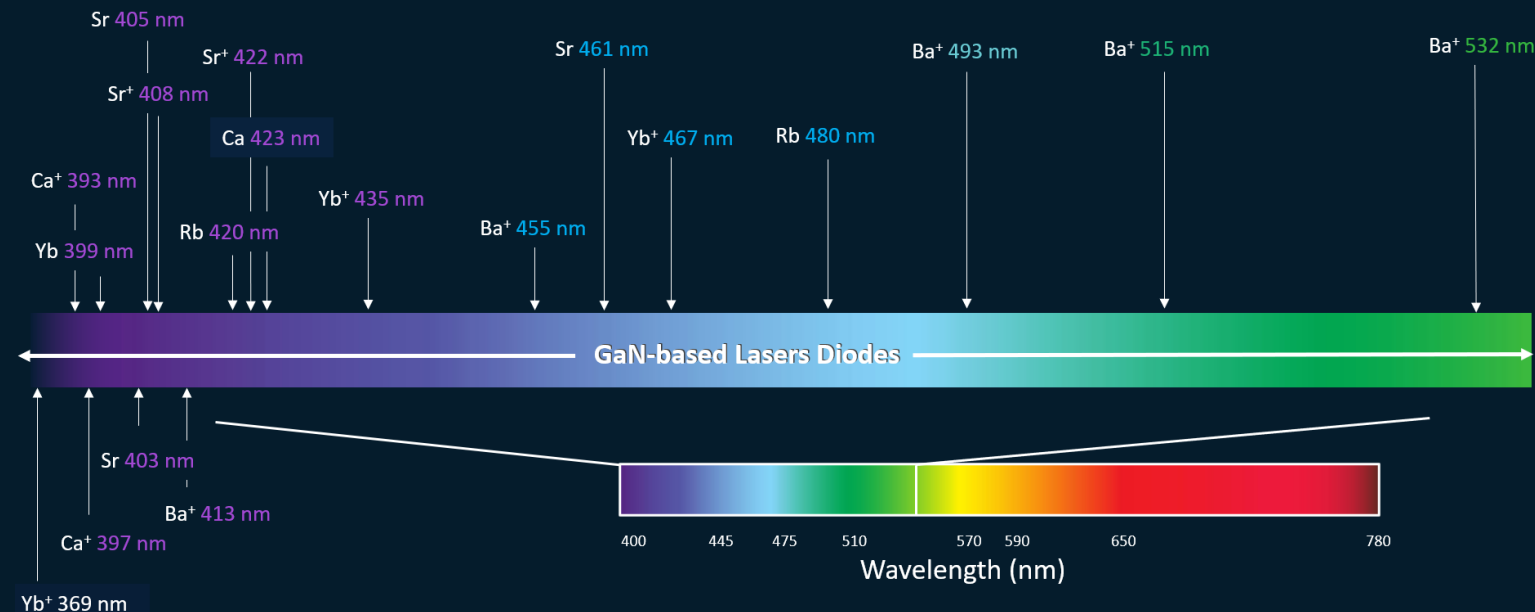


Quantum computing

\$1.2B – \$170B

2024
market size

Estimated
market size
by 2040



KEY INDUSTRY PLAYERS BY SEGMENT



INDUSTRIAL

COHERENT

NUBURU

TRUMPF

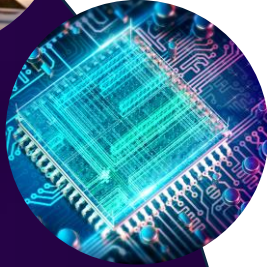
I P G
PHOTONICS

MITSUBISHI
ELECTRIC

AIRBUS

TERADIODE
NEXT GENERATION INDUSTRIAL LASERS

nLIGHT



QUANTUM COMPUTING & SENSING



IONQ



Q-CTRL



ADVANCED
NAVIGATION

IPS
Innovative Photonic Solutions



QUANTINUUM

TOPTICA
PHOTONICS



Fraunhofer

Laser
QUANTUM
INNOVATIVE RELIABLE INTELLIGENT



DISPLAY (AR/VR)



Google



Panasonic

Meta

SAMSUNG



BIOTECH

INTUITIVE
SURGICAL

modulight

BIOLASE
Advancing Dentistry™

Alcon®

IRIDEX



DEFENCE



LOCKHEED MARTIN



Raytheon
Technologies

NORTHROP
GRUMMAN



BOEING

PROJECT-TO-PRODUCT REVENUE PIPELINE & OPPORTUNITY



BluGlass' project pipeline is gaining significant momentum with diverse opportunities throughout the pipeline

26* project opportunities in pipeline representing **US\$90-100M** in project value

Project Pipeline



Follow-on Revenues

Projects lead to large-scale manufacturing contracts & product revenues in **\$2B** GaN laser serviceable market

Growing pipeline of opportunities

Initial evaluation to advanced negotiations with diverse customers and partners

Proposals & tenders:

Form key industry partnerships with defense primes, government agencies, OEMs and large commercial manufacturers, & well-funded innovative start-ups

Contract negotiation

Establish leadership and develop novel capabilities in high-growth markets: quantum, defence, aviation, scientific, and biomedical

Secure large-scale contracts & follow-on manufacturing revenues

Establish long-term, large-scale revenue generating projects (e.g. ME Commons) and entering follow-on commercial manufacturing contracts

* The project pipeline includes opportunities at various stages of engagement. Negotiations with OEMs, prime contractors, and government agencies can take many months or years to mature, and not all engagements will result in revenue-generating contracts.

Gaining Business Momentum

A\$6M+

In recent contract wins with key partners across key market verticals

Key Partnerships

Including the
US DoD

As part of the Microelectronics Commons, CLAWS Hub, inc. GE, Coherent, MACOM, NSCU

Significant Growth

133%

133% three-year revenue CAGR.

A\$4.6m revenue in FY24, with record revenue expected in CY25.

Growing Pipeline of Opportunity

\$90-100m
of revenue opportunity across 26 Key Projects

BluGlass' project pipeline is growing with diverse opportunities



THANK-YOU & QUESTIONS

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