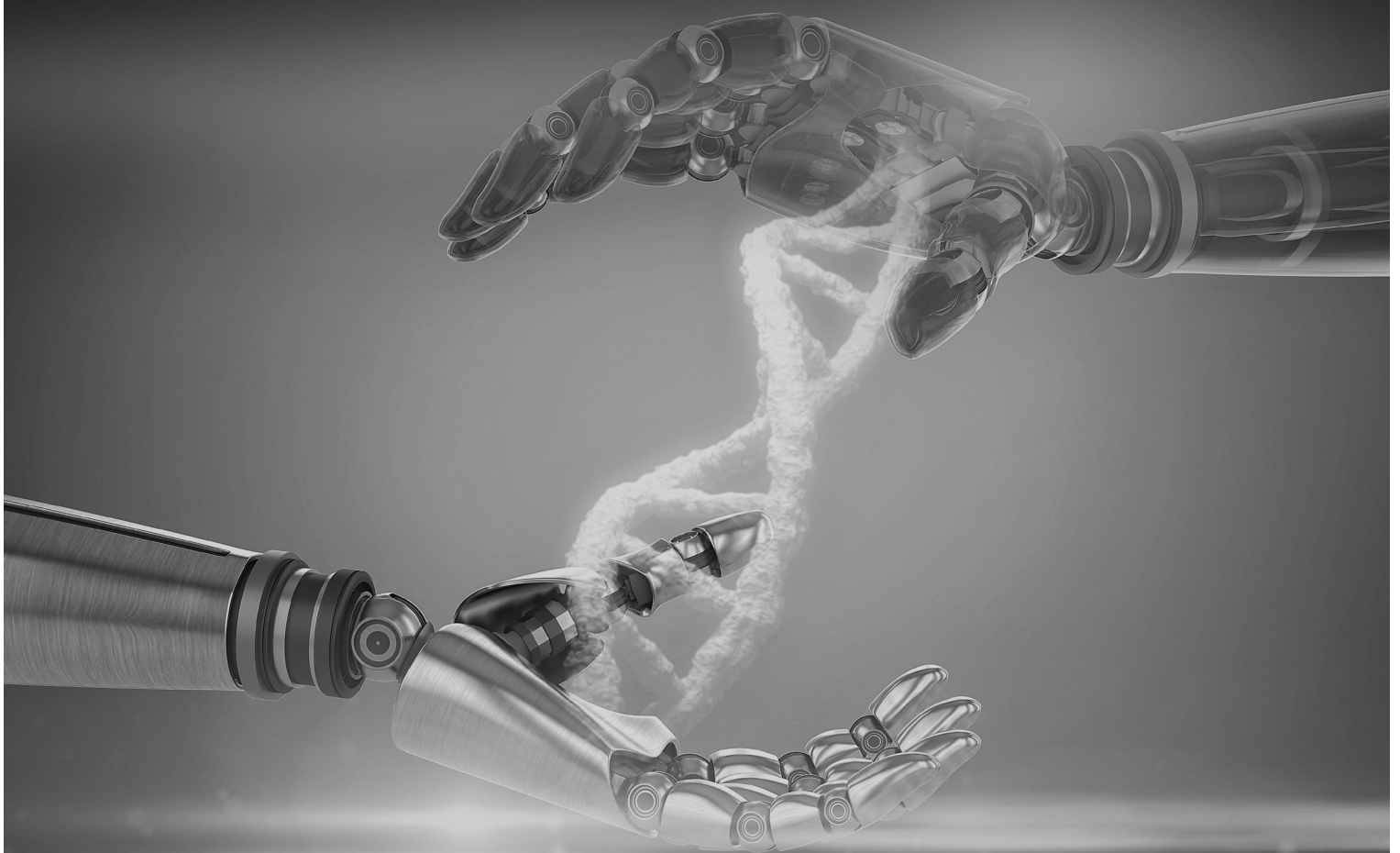




Emerging Stocks Down Under

🗨️ *To know values is to know the meaning of the market.* 🗨️

- Charles Dow (1851-1902), founder of Dow Jones & Company



BLUGLASS

Relight my fire

BLUGLASS

Relight my fire

Stocks Down Under rating: ★★★★★

ASX: **BLG**
Market cap: **A\$39.6M**

52-week range: **A\$0.023 / A\$0.052**
Share price: **A\$0.029**

In the last few years, BluGlass has pivoted into the manufacturing of high-performance Gallium Nitride (GaN) laser diodes. More recently, it purchased a manufacturing facility in the USA and appointed a new company President that has decades of experience commercialising disruptive laser diode technology. In our view, all the pieces of the puzzle are now coming together and we think BluGlass is very well-positioned to carve out a profitable niche in the rapidly growing gallium nitride (GaN) laser diode market.

Share price chart



Source: Tradingview

What are laser diodes?

Laser diodes are semiconductor devices that generate highly intense, focused beams of light and serve several purposes, depending on the industry and application. For example, mobile phones use laser diodes to indicate the presence of incoming telephone calls. Advanced manufacturing processes use laser diodes for the fabrication of advanced componentry needed in everything from the high precision manufacture of semiconductor chips and electronic devices, to the intricate metal and polymer fabrication needed in today's cars, planes, and trains. In medical devices, laser diodes are used for things like sensing cancer and diseases, to removing unwanted tissues. And of course, there are growing applications in displays and lighting, in particular for AR/VR applications. Laser technology is not only changing the way that advanced technology is made, but the very things that can be made.

BluGlass historically developed semiconductor equipment and processes for the manufacture of GaN LEDs, but has pivoted to a direct-to-customer GaN laser diode business model to exploit the very substantial opportunity in this market. This is not just because of the market size for laser diodes, as big as it is and will be. Laser diodes are forecast to grow at a more than 23% compounded annual growth rate through 2025. More importantly, there are needs in the market that are currently not being met by existing manufacturers and BluGlass plans to fill this void in the market.

Better for customers and BluGlass

Laser diode customers want greater flexibility, faster development, enhanced performance and lower cost solutions, but cannot get them right now – at least not without significant post-purchase work. BluGlass aims to offer a full suite of plug and play and custom GaN laser solutions to several market segments, including the industrial, defense, display and scientific markets. It will offer products in a range of form-factors and in a broad spectrum of wavelengths ranging from 405-450nm.

From a manufacturer's perspective, laser diodes are problematic because they require a highly specialised manufacturing process. Although the industry only has a handful of large players, BluGlass has three distinct advantages.

First, it is more agile and flexible because of its smaller size and can therefore meet individual customers' requirements as described above. Second, in the not-too-distant future it aims to combine its proprietary Remote Plasma CVD (RPCVD) process with the industry standard Metal Organic Chemical Vapour Deposition (MOCVD) technology, which will enable higher-value, higher-brightness laser diodes that are less energy intensive. Third, it is vertically integrating its supply chain and is bringing its laser diode manufacturing process in-house. This will help the company fast-track laser diode development and avoid supply chain issues that have plagued other companies in this space. Furthermore, as BluGlass brings production increasingly in-house, away from contract manufacturers, it should be able to drive gross margins higher over time.

Two key catalysts

We believe BluGlass is very well-positioned to succeed in the laser diode space because of two catalysts that we think make all the difference. First, the company purchased a laser diode production facility in Silicon Valley earlier this year, in Fremont, California to be precise. This will help with its goal of vertically integrating its supply chain and thereby achieve other objectives, including higher-performing products and greater product customisation. Once ramped up, this facility should accommodate \$160m in revenues.

Second, the company welcomed Jim Haden as company President. He has a proven track record in transforming advanced technology businesses from R&D and early-stage product development to profitable high-growth commercial entities. He was Chief Operating Officer at nLight where he helped transform the business from an early-stage company to market leader, more than doubling revenue, increasing R&D return on investment four-fold and ultimately assisted the business to attract expansion capital of US\$25m. And in his most recent role at Soraa Laser Diode, he assisted in its acquisition by Kyocera in January 2021.

All its ducks in a row

In the last 15 years, BluGlass has built up a significant body of expertise in RPCVD and in the manufacturing of GaN LEDs that it is now leveraging in GaN laser diode manufacturing. Along with its existing wafer fab in Sydney, the new fab in Fremont, which vertically integrates the company's supply chain, and its extensive portfolio of patents, standing at 93 right now, we believe the company has all its ducks in a row.

Obviously, there is execution risk in getting the company up to a sizable revenue level. But we think BluGlass has the right team in place to get the job done. And although there are competitors in the laser diode space, we think BluGlass can carve out its own, profitable niche in laser diodes where it is not really competing directly with the incumbents given the advantages of its flexible design and manufacturing process. With all its ducks in a row now and with the shares trading at 2.9 cents, we believe BluGlass is a four-star opportunity.

For a deep dive into BluGlass, you may want to read the [extensive report](#) that the team at Pitt Street Research just published on the company.

Pitt Street Research Pty Ltd

3 Spring Street, Sydney, NSW 2000, Australia

Stocks Down Under gives you an information advantage to better invest and trade in ASX-listed stocks!

Stocks Down Under (Pitt Street Research AFSL 1265112) provides actionable investment ideas on ASX-listed stocks. The Content is financial advice but is not (and cannot be construed or relied upon as) personal financial advice. No investment objectives, financial circumstances or needs of any individual have been taken into consideration in the preparation of the Content. Please make sure that investing in such products is suitable for your circumstances, and ensure you obtain, read and understand any applicable offer document.

Financial products are complex, entail risk of loss, may rise and fall, and are impacted by a range of unpredictable market and economic factors.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission from Pitt Street Research Ltd Pty. All intellectual property relating to the Content vests with Pitt Street Research/ Stocks Down Under unless otherwise noted.

Stocks Down Under/Pitt Street Research directors and staff may own shares in the companies mentioned in our articles, videos, reports and analyses.

You are receiving this email because you subscribed to our newsletter.

