

RELEASED OCTOBER 2007

# NEWSLETTER 02

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## PARTNER PROFILE EMF SEMICONDUCTOR SYSTEMS

A forward thinking approach to the manufacture of MOCVD tools.

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## MEET THE TECHNOLOGY DEPARTMENT

Our world leading team and our new facility.

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## BLUGLASS IN THE NEWS

Commercial Ready grant and other BluGlass news.



### CEO LETTER

Fellow Shareholders,

I'm pleased to be able to welcome you to our second newsletter. In this issue you'll find information about one of our business partners, get to meet our technical department and find out about our commercial ready grant.

As you may be aware, we recently gave an investor update to ensure we were keeping you informed about our progress against the commitments made in the prospectus.

During this update we covered the background to some of our market assumptions, gave an overview of the technology, and progress on building our facility at Silverwater.

Feedback from the investors who were able to attend that meeting told us that you wanted to be kept up to date, and

you appreciated being able to develop a more in depth understanding of your company, and the technology.

Unfortunately we were only able to meet a small number of you at the last update so, to ensure that you all have a chance to meet the team, ask any questions you have, and find out a bit more about the company we are planning to do a road show in November.

During this roadshow we'll be meeting with investors both one-on-one and in groups. We're also intending on hosting a site visit at our facility in Sydney early in 2008.

Naturally we understand not all of you will be able to come to Silverwater, so we'll be traveling extensively throughout Australia during the roadshow. If you would like to attend one of our road shows, I urge you to contact us as we are hoping to see as many of you as we can on this trip.

For more information about the road show, please email [gbourne@bluglass.com.au](mailto:gbourne@bluglass.com.au) and we'll make sure you are kept informed about exact dates, times and locations.

I would also like to take this opportunity to invite you to join us at our AGM on the 19 November in Sydney. The AGM will

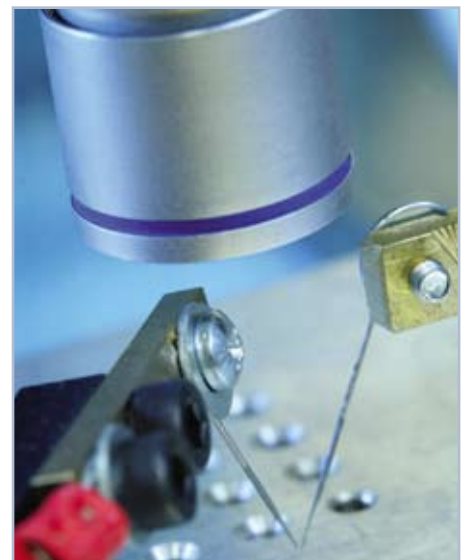
start at 3:00pm and will be held at Grant Thornton, Level 17, 383 Kent Street.

I hope you enjoy this newsletter, and find it informative. If you have any other questions about BluGlass please feel free to contact me [djordan@bluglass.com.au](mailto:djordan@bluglass.com.au)

A handwritten signature in black ink that reads "David Jordan". The signature is fluid and cursive.

DAVID JORDAN

Chief Executive Officer



## **■ PARTNER PROFILE:** EMF SEMICONDUCTOR SYSTEMS LTD

Ireland based EMFSS sells custom MOCVD equipment and has previously built integrated systems for companies including Northrop Grumman, a \$30 billion global defence and technology company and Selex, a Finmeccanica company, Finmeccanica is Italy's leading high-tech company.

The EMFSS R&D personnel played a key role in the development of the world's first commercial MOCVD system in the early 1980's.

### **Collaboration**

EMFSS is currently working closely with BluGlass Ltd. to develop a new generation production, gallium nitride (GaN) tool based on the BluGlass-patented Remote-Plasma (RPCVD) technology to meet the growing demand.

BluGlass awarded EMF the contract to supply components forming the basis of the first commercial-scale prototype GaN-on-glass reactor after their assessment of global equipment manufacturers.

Unlike regular MOCVD, BluGlass' method uses nitrogen gas rather than ammonia as the source of nitrogen in the compound semiconductor films.

As well as being more environmentally friendly the technique also operates at a lower temperature than MOCVD, allowing for the use of glass as the base substrate meaning lower production costs.

### **MOCVD**

Metal Organic Chemical Vapour Deposition: the process whereby semi-conducting material is deposited on a base.

### **RPCVD**

Remote Plasma Chemical Vapour Deposition: BluGlass' patented method for depositing semi-conducting material on a base.



## **■ BLUGLASS ON THE ROAD**

Following the investor presentation earlier this year in Sydney we're doing a major Roadshow down the Australian East Coast, and over to South East Asia to meet with our investors. Over the month of November we'll be visiting Innisfail, Brisbane Newcastle, Sydney, Melbourne, Singapore, China, Hong Kong and Taiwan.

We'll be running both one on one meetings and seminars to ensure everyone will have an opportunity to talk to us.

The following dates are tentative, and may change slightly. If you would like to attend one of our seminars, or arrange a face to face meeting, please contact [gbourne@bluglass.com.au](mailto:gbourne@bluglass.com.au) – to ensure you are kept updated with any changes, for more information and to register your interest.

- 09 November – Sydney
- 12 November – Innisfail
- 13 November – Brisbane
- 14 November – Newcastle
- 15 November – Melbourne
- 16 November – Melbourne
- 19 November – Sydney
- 21 November – Singapore
- 23 November – Shenzhen
- 26 November – Hong Kong
- 28 November – Taipei
- 29 November – Taipei

## THE TECHNOLOGY DEPARTMENT

BluGlass' technology was developed by Dr Scott Butcher and Dr Marie Wintrebert-Fouquet over a period of 15 years at Macquarie University.

They've now come to BluGlass to work on the full scale commercialisation of their breakthrough.

The team is focused on demonstrating light emitting diodes from gallium nitride crystals grown by BluGlass using a technique relatively new to the field, RPCVD.

The main aim is to show that gallium nitride LEDs of reasonable quality can be grown and fabricated from material grown by the RPCVD technique.



### SCOTT BUTCHER

#### CHIEF TECHNOLOGY OFFICER

Scott has 15 years experience in the development of nitride-based film growth systems and in the growth and characterisation of nitride-based semi-conductor materials.

He is responsible for film growth and material characterisation, as well as the general running of the department.

### MARIE WINTREBERT-FOUQUET

#### SENIOR RESEARCH SCIENTIST

Marie's specialist expertise is in the characterisation of semiconductors; in the growth of thin film nitride semiconductors at low temperature, and in the fabrication of optical and semiconductor devices.

### GUY REYNOLDS

#### EQUIPMENT ENGINEER

Guy is an equipment engineer who specialises in the tailored design and manufacture of specialised process equipment and is supporting the commercial reactor development.

### SATYANARAYAN BARIK

#### RESEARCH ENGINEER

Satya has just completed his PhD at ANU and has experience in a range of material deposition and characterisation techniques.

He has published a number of articles in reputed international journals on this topic.

### TIM DABBS

#### RESEARCH ENGINEER

Tim has over 25 years experience in optics, optical networks and optics-based measurement and image analysis.

He has worked extensively as a research scientist with organisations such as Australian Optical Fibre Research, CSIRO, James Hardie and NORTEL Networks.

### ALANNA FERNANDES

#### RESEARCH ENGINEER

Alanna is a material characterisation specialist with experience and skill in GaN-based material analysis.

## BLUGLASS' EXPANSION CONTINUES

During this year, BluGlass has welcomed a number of new members to it's team.



### GILES BOURNE

#### COMMERCIAL MANAGER

Giles is a specialist in developing offshore business opportunities for Australian corporations.

He has over 12 years experience working with multinationals and SME's in Australia and overseas focussing on growing businesses through securing inward investment, setting up domestic and international partnerships, JV's and licensing deals.

His primary focus will be on business development and the establishment of sales

and marketing structures to support the commercialisation of BluGlass' light emitting diode (LED) technology.



### PIOTR GLOWACKI

#### FACILITIES MANAGER

Piotr comes to BluGlass from Quantum Precision Instruments in Singapore where he was a project

manager responsible for technology development, design and testing of prototype, quantum-tunneling based nano-sensors in 90nm geometry.

Prior to Quantum Precision Instruments he was with Redfern Integrated Optics, where he was involved in technology

development and pilot production of planar optical devices.



### CONNOR MARTIN

#### MANAGER, EQUIPMENT DESIGN & DEVELOPMENT

Connor is managing the commercial reactor development program.

He has joined BluGlass from German firm Aixtron, a world leader in semiconductor deposition equipment.

He is responsible for the development of the mass production scale commercial manufacturing equipment using flow, thermodynamics and chemistry computational modelling for optimisation of the vector design and process.

74 Asquith Street  
SILVERWATER NSW 2128 AUSTRALIA

P + 61 2 9334 2300  
F + 61 2 9748 2122  
E admin@bluglass.com.au

for further information  
visit us at [www.bluglass.com.au](http://www.bluglass.com.au)

## ■ \$5 MILLION COMMERCIAL READY GRANT BOOST TO BLUGLASS

BluGlass Limited has been offered a \$5 million Australian Government Commercial Ready grant to help commercialise its innovative energy-efficient lighting project.

Australian Industry Minister, Mr Ian Macfarlane said the company's technology will significantly cut the cost of producing gallium nitride, a core component of LEDs (light emitting diodes).

*"Gallium nitride is a vital element in the production of a range of high-performance electronic devices, particularly LEDs,"* Mr Macfarlane said.

*"LEDs are the future of lighting because of their high energy efficiency, robust construction, long life and excellent light brightness and colour quality, and*

*their use of environmentally friendly materials. They outperform bulbs, are comparable with, but will soon exceed fluorescents and, in time, will replace the old bulbs.*

*BluGlass is leading the way with this technology and owns a patented process for making the low-cost gallium nitride wafers, a core element of LEDs."*

The gallium nitride market could double over the next four years, from about US\$4.5 billion in 2007 to more than US\$9 billion by 2011.

Mr Macfarlane said the product would have the same impact on high-tech industries as the advent of the silicon chip did decades ago.

*"LEDs can be found in products as diverse as mobile phones and personal digital assistants, traffic lights and household lamps,"* Mr Macfarlane said.

*"They have low power requirements that can be operated by batteries, use up to 80 per cent less energy and last up to 100 times longer than bulbs. The Australian Government is always willing to support innovation that puts our dynamic companies on the world stage."*

David Jordan, BluGlass CEO said, *"We were delighted to receive the commercial ready grant, as it demonstrates we have a process with huge potential for commercial success."*

## ■ BLUGLASS IN THE NEWS

### 6 SEPT

#### COMMONWEALTH GRANT BRIGHTENS BLUGLASS

Australian energy-efficient lighting innovator BluGlass Ltd has won \$5 million in federal funding to pursue commercialization of its break through technology. *The Age.*

### 11 SEPT

#### BLUGLASS AWARDED \$5M IN GOVERNMENT FUNDING

A company that hopes to commercialise a low-cost process for the production of gallium nitride LED wafers has received Australian government backing. *LEDs Magazine.*

### 21 SEPT

#### BLUGLASS SET TO HIRE AS GOVERNMENT GRANT KICKS IN

A multi-million-dollar grant from the Australian government should help BluGlass move towards commercializing its GaN-on-glass LED technology. *Compound Semiconductor.net.*

### 26 SEPT

#### BLUGLASS WINS \$5M LIGHTING TECH GRANT

The federal government has announced a \$5 million grant to a company working on an energy-efficient lighting project tipped to provide the next generation of lighting in homes. *Yahoo News.*

### 26 SEPT

#### BLUGLASS WINS \$5M LIGHTING TECH GRANT

The federal government has announced a \$5 million grant to a company working on an energy-efficient lighting project tipped to provide the next generation of lighting in homes. *The Sydney Morning Herald.*

### 8 OCTOBER

#### THE LIGHTS ARE ON

With an oversubscribed public float, a \$5 million AusIndustry grant in the bag and a \$100 billion global market beckoning BluGlass Limited is a start-up company defying Australia's poor track record of commercialising innovative technology. *The Sydney Morning Herald.*