



BluGlass Investor Presentation

Giles Bourne, CEO BluGlass Limited

July 2011

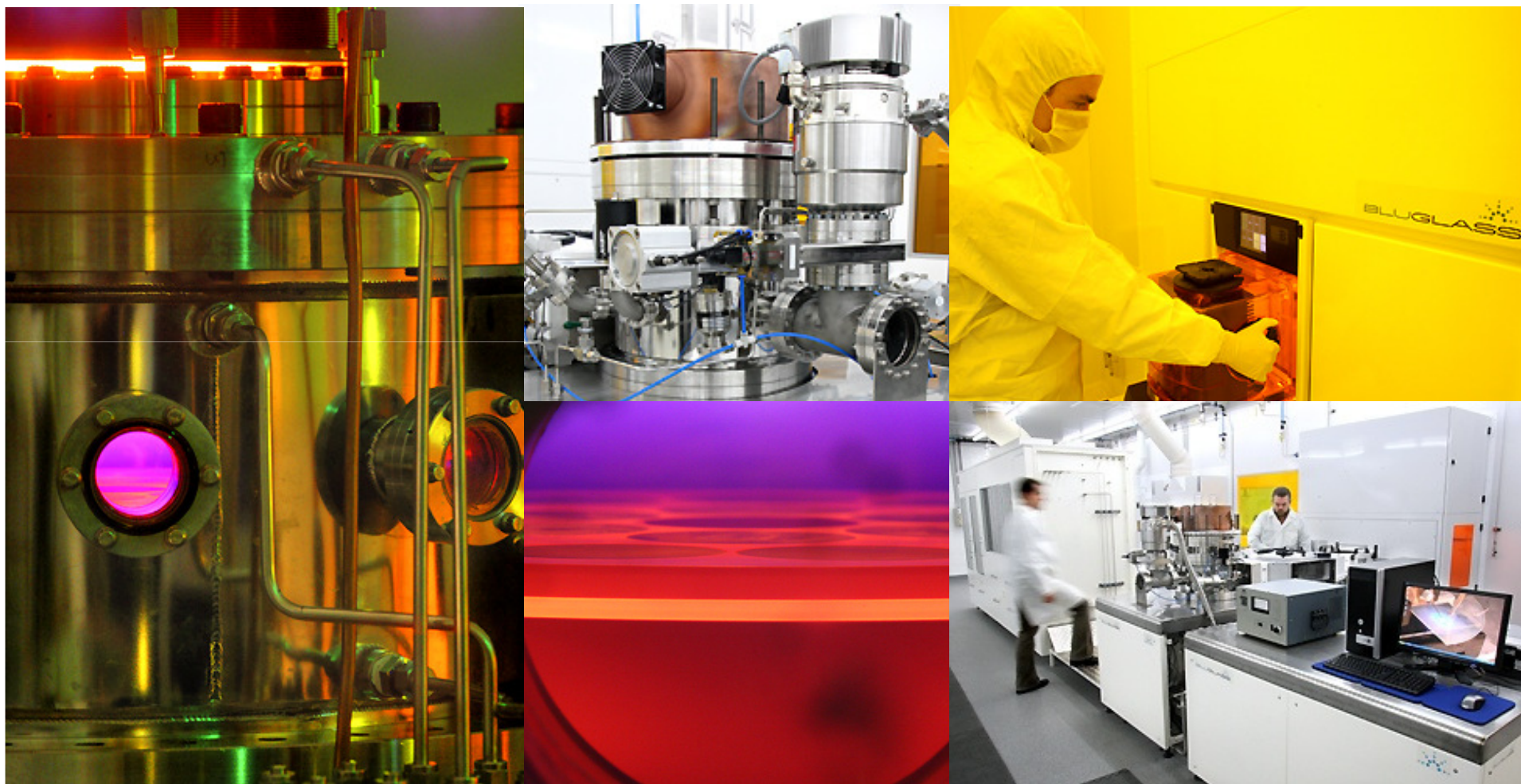
- This document has been prepared by BluGlass Limited to provide existing and prospective investors in BluGlass Limited with an update.
- Any statements, opinions, or other material contained in this document do not constitute any commitments, representations or warranties by BluGlass Limited or/and associated entities or its directors, agents and employees. Except as required by law, and only to the extent so required, directors, agents and employees of BluGlass Limited shall in no way be liable to any person or body for any loss, claim, demand, damages, costs or expenses of whatsoever nature arising in any way out of, or in connection with, the information contained in this document.
- This document includes certain information which reflects various assumptions. The assumptions may or may not prove to be correct. Recipients of the document must make their own independent investigations, consideration and evaluations prior to making any decisions to invest in the Company.

✓	Breakthrough Technology	▪ BluGlass has patented processes for exploiting Remote Plasma Chemical Vapour Deposition (RPCVD) ("BluGlass Technology") ▪ Applicable to several large end markets
✓	Significant Advantages	▪ Superior performance potential for LED and PV devices enabled through BluGlass' unique lower temperature process ▪ Efficiency, cost and environmental benefits
✓	Rapidly Growing End Markets	▪ LED market growing at 30% p.a. to US\$18bn+ by 2015 ¹. ▪ Concentrated Photovoltaic ("CPV") solar cell market growing at 100% p.a. to 2GW by 2015 ².
✓	Key Partnerships	▪ JV with SPTS (global semiconductor equipment provider) ▪ Significant Australian Government grants in PV
✓	Clear Path to Market	▪ Progress towards commercialisation ▪ Next steps - Single crystal and commercial quality material - Productisation - Customer site for testing

1. Source: Aixtron 2010 2.Source: Amrock 2011

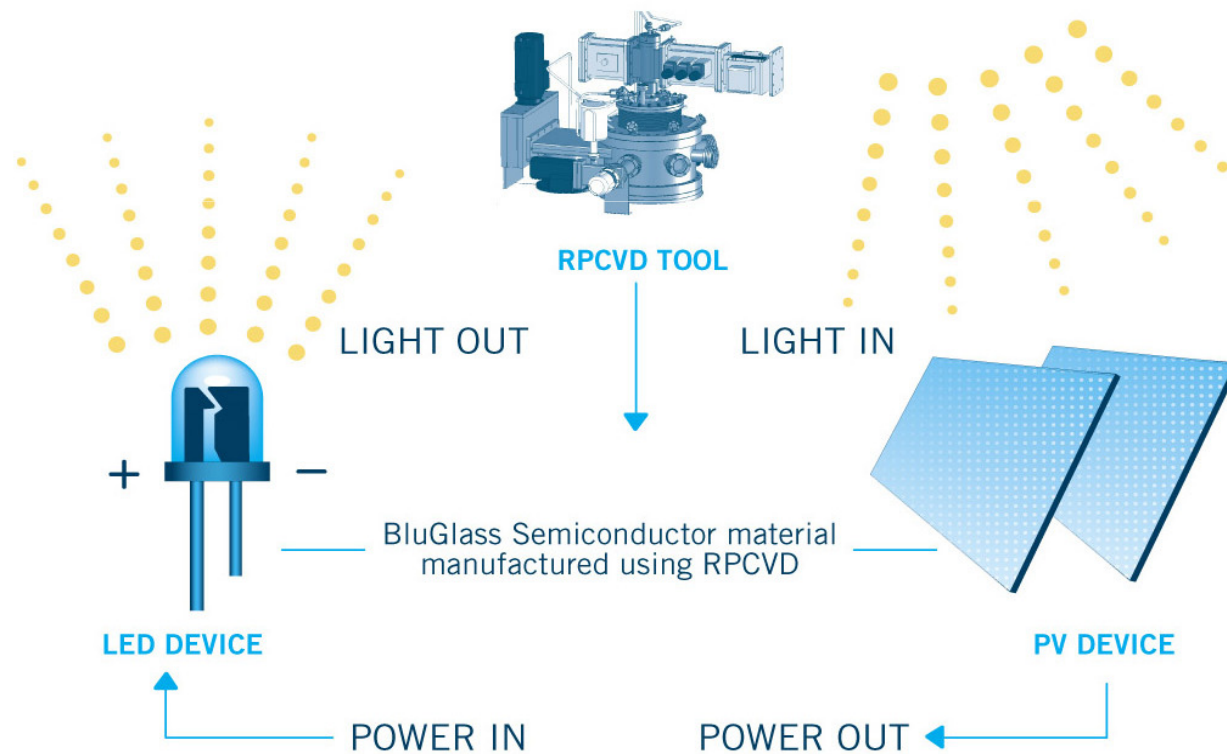
■ BLUGLASS OVERVIEW	5
■ THE LED OPPORTUNITY	8
■ LED Market Drivers	
■ Equipment Market	
■ The LED Value Chain	
■ THE SOLAR OPPORTUNITY	12
■ BluSolar	
■ InGaN Solar Cells	
■ PV Market Growth	
■ The CPV Value Chain	
■ STRATEGIC PARTNERSHIP	19
■ The JV with SPTS	
■ Roadmap to Market	
■ CONCLUSIONS	22





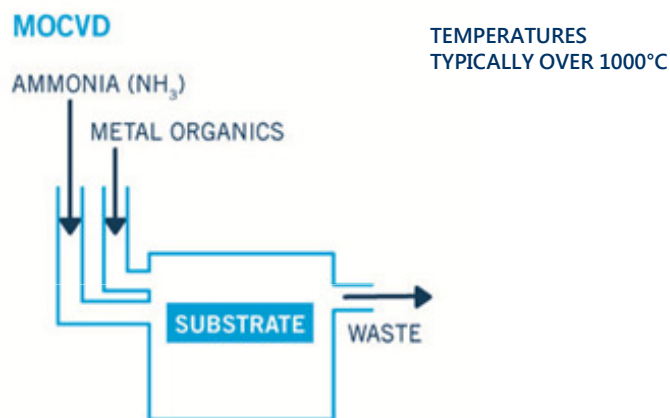
BluGlass Technology can serve several end markets including LED and PV

ONE SOLUTION, MULTIPLE MARKETS



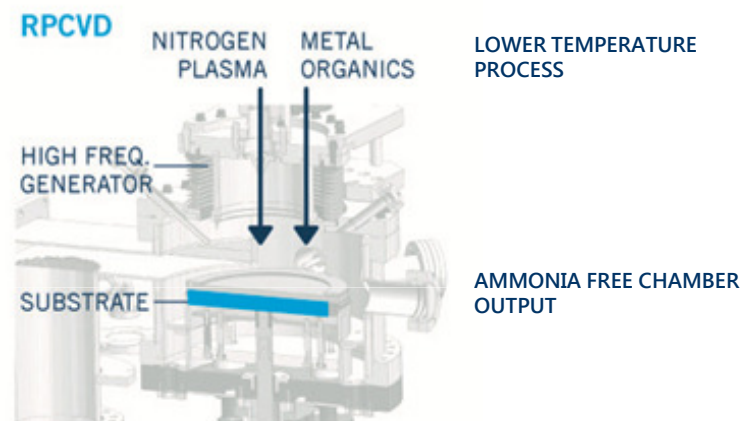
BluGlass Technology has significant benefits over existing industry processes

Industry Standard Technology



- ✗ High temperature (typically >1000°C). These temperatures limit performance potential
- ✗ Expensive and toxic ammonia nitrogen source
- ✗ Ammonia creates large amounts of toxic waste that requires scrubbing

BluGlass Technology



- ✓ Performance advantages enabled by lower temperature process
- ✓ Lower cost inputs
- ✓ More environmentally sensitive (nitrogen plasma nitrogen source)
- ✓ Substrate flexibility
- ✓ Versatile platform technology

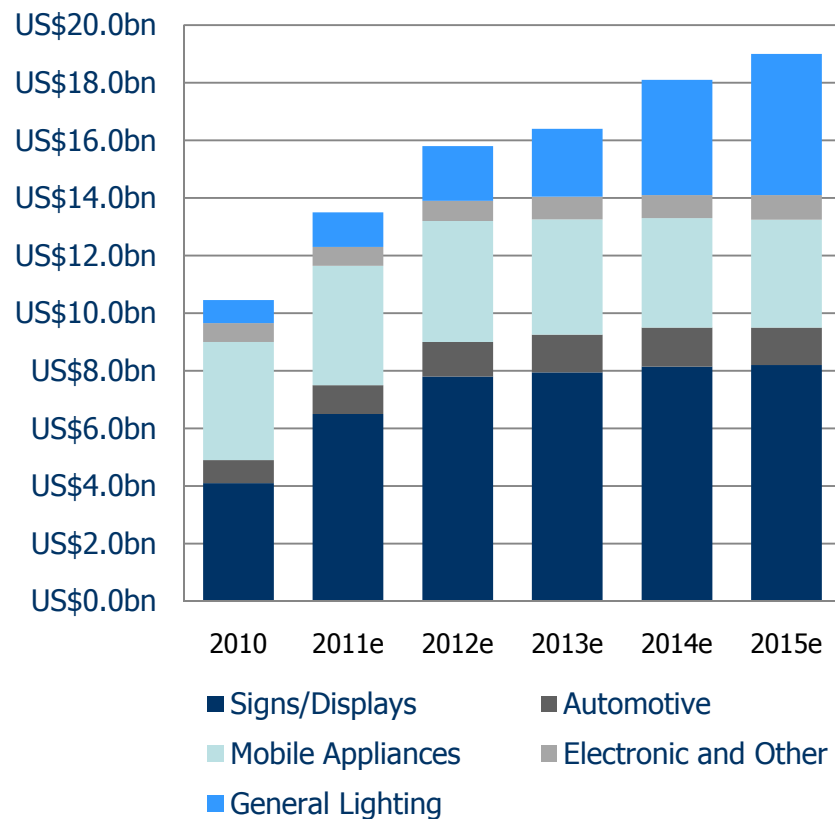


BUGLASS

LED OPPORTUNITY

The LED Market is a key driver for wafers utilising BluGlass Technology

High brightness LED market forecast by application

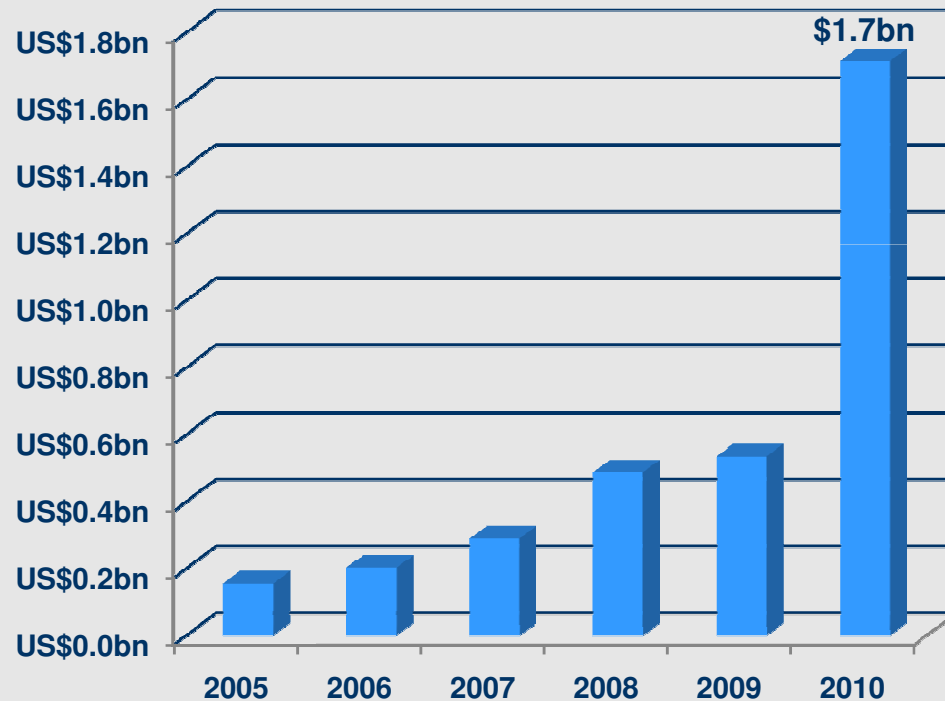


Source: Strategies in Light

- LED market growth is currently being driven by the display markets for TV and PC applications
- The next growth opportunity is the general lighting market which is currently worth in excess of US\$100 billion p.a.
- Efficiency and cost are the remaining challenges for general lighting market penetration

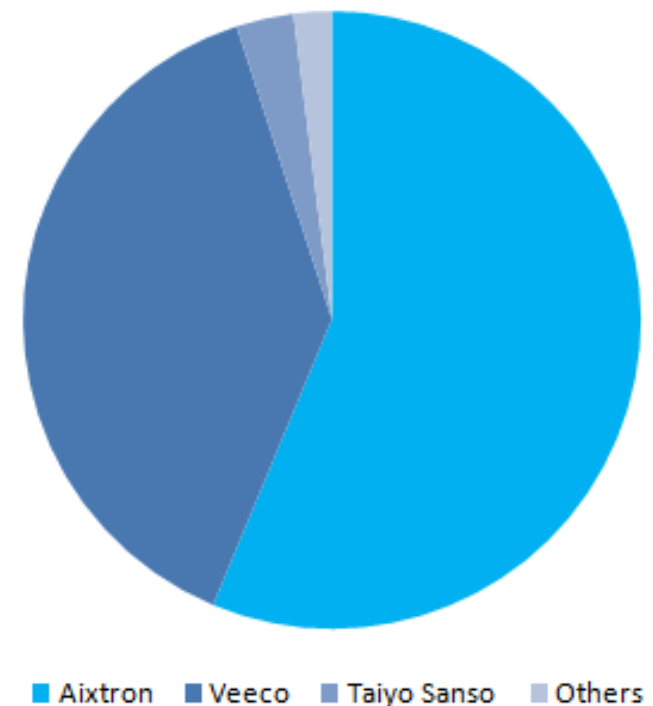
LED equipment market growth will reflect the rapidly growing LED market

LED Equipment Revenue



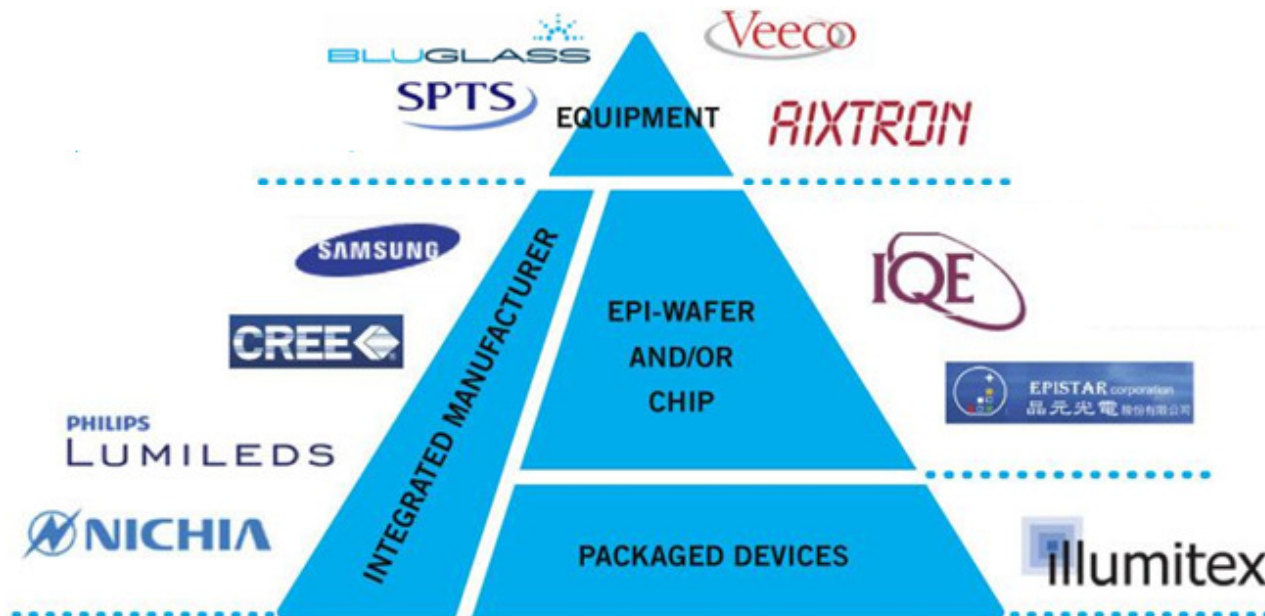
Source: Aixtron (compilation of VLSI Research and Gartner Dataquest)

2010 MARKET SHARES



Equipment manufacturing is the single highest margin & value segment in the LED chain

MARKET FEATURES



- US\$5bn+ value¹
- CAGR of ~10%²
- High margin
- Capacity constrained

- \$10.8bn LED market in 2010³
- Combined CAGR of 28.2% to 2015³
- 39% CARG for general lighting to 2015³
- Potential downstream opportunities for BluGlass as a substrate / device manufacturer

1. Based on combined market cap

2. Consensus forecast growth rates

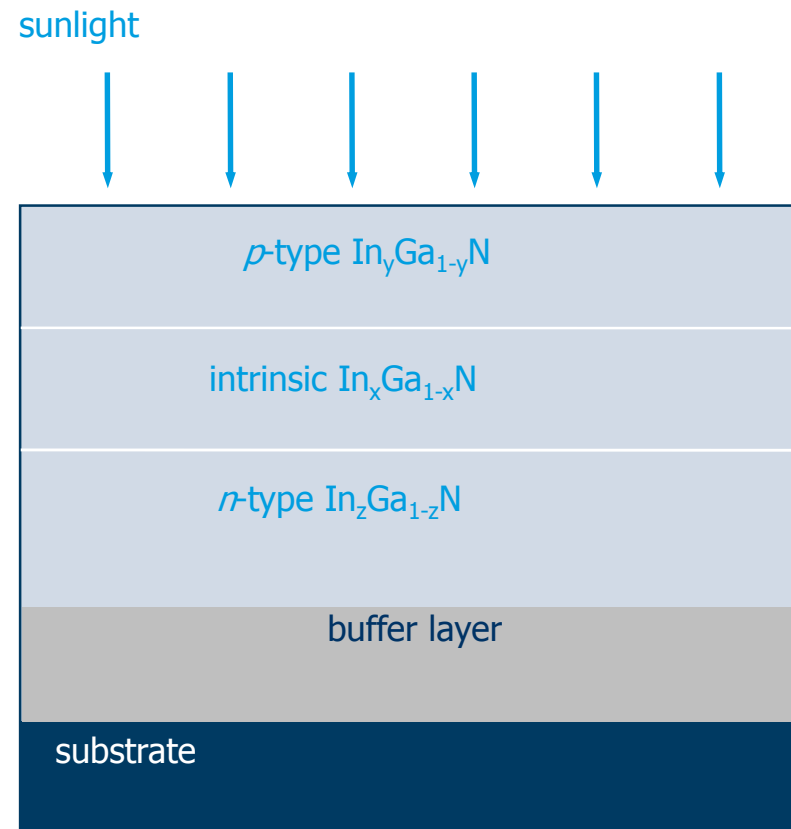
3. Strategies Unlimited 2010



BLUGLASS

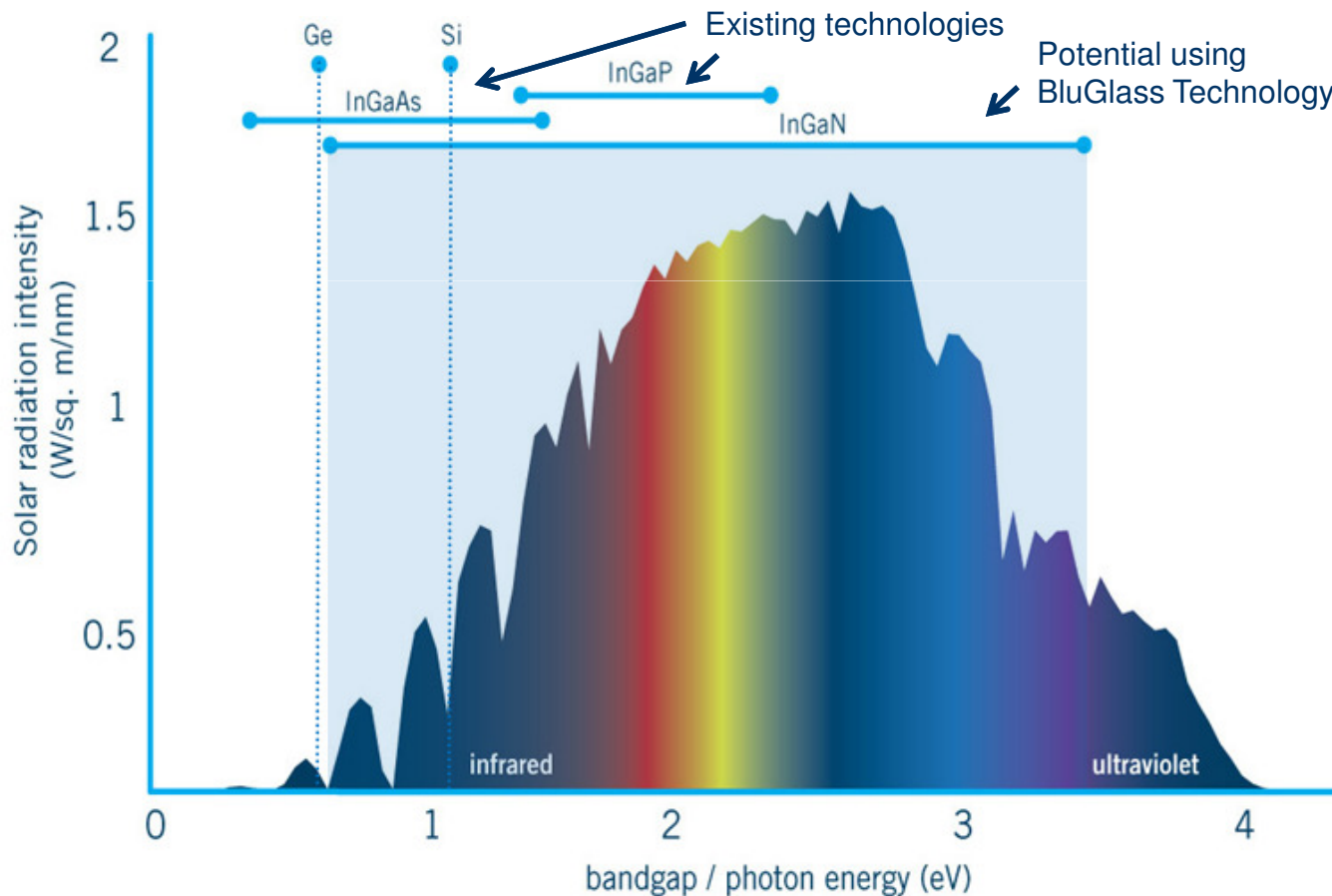
SOLAR OPPORTUNITY

- BluGlass intends to exploit InGaN solar cells patenting unique solar cell device structures and manufacturing techniques
- BluGlass Technology is an ideal platform technology for the production of high efficiency InGaN solar cells
- BluGlass has won an A\$4.95M Climate Ready Grant (Federal Government) to develop a high efficiency nitride based solar cell
- BluGlass has established a foundry service agreement with Rainbow Optoelectronics (Shanghai) to build BluGlass designed nitride solar cells (solar development activity not dependant on the RPCVD commercialisation schedule)



InGaN solar cells should convert almost the whole solar spectrum into useable power

SPECTRUM MATCHING OF SOLAR MATERIALS

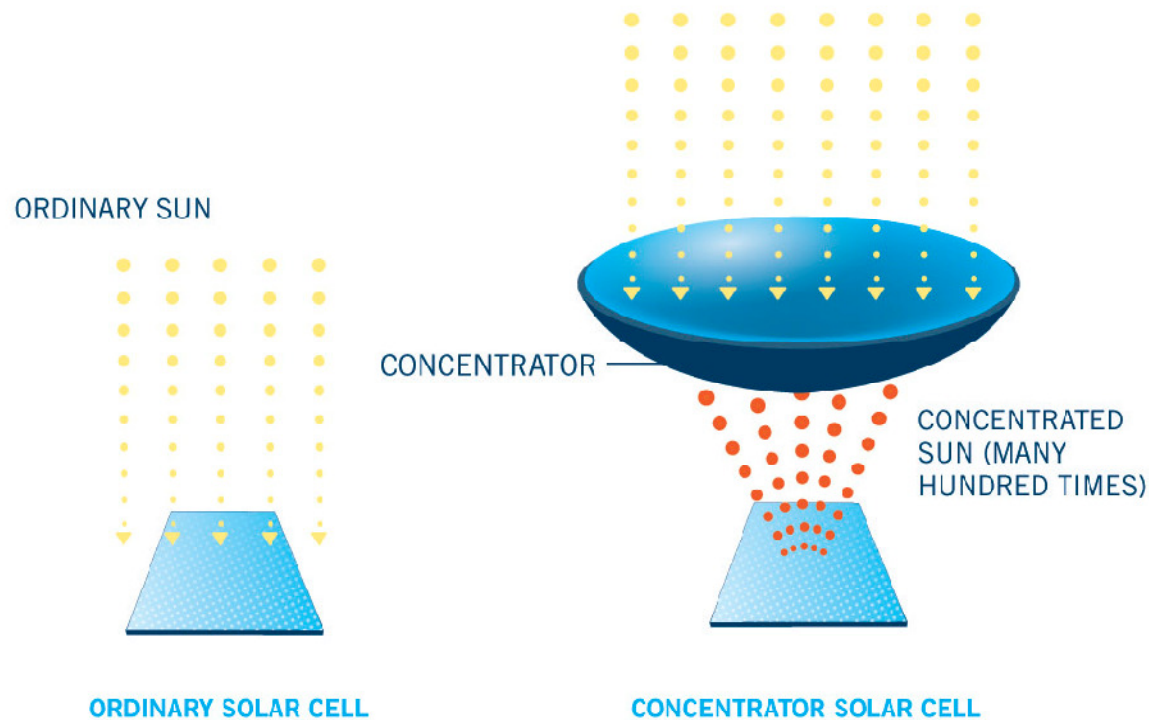


- Existing technologies (InGaAs, InGaP, Ge) capture only a small part of the solar spectrum
- InGaN captures a much broader spectrum but cannot yet be produced efficiently
- BluGlass Technology is potentially an ideal low temperature process for producing high efficiency broad spectrum InGaN solar cells

InGaN could transform the efficiency of CPV – increasing its competitiveness as a global energy source.

BluGlass Technology provides an ideal solution for growing high efficiency InGaN

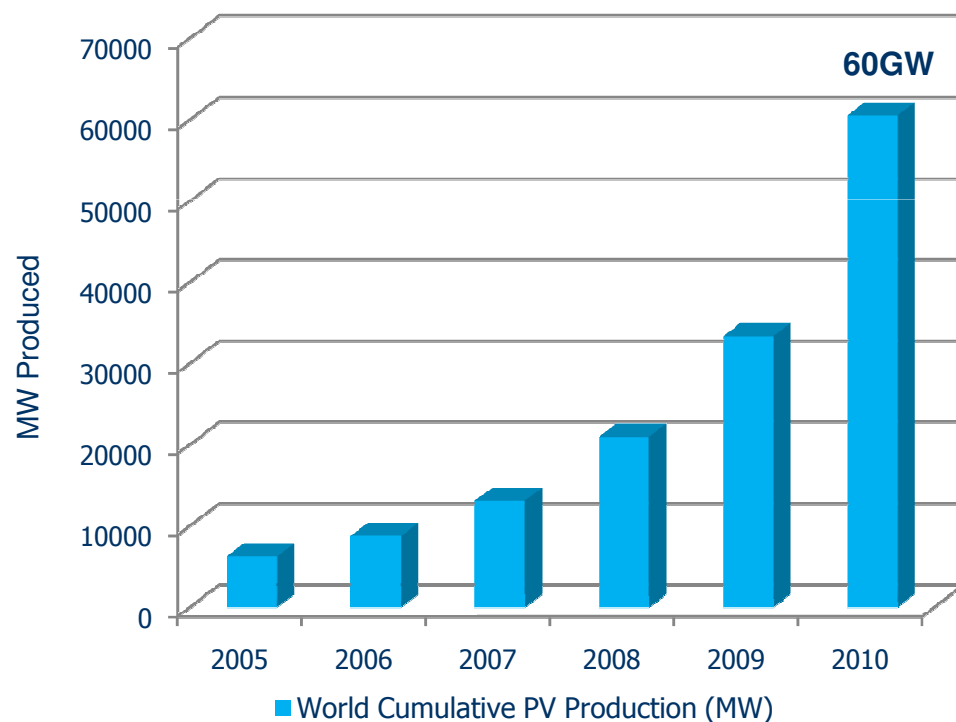
WHAT IS CPV?



- Concentrated Photovoltaics (“CPV”) is the most effective way to capture and convert large amounts of solar energy by concentrating the sun’s rays onto a smaller area of solar cell material

The CPV market is expected to grow very rapidly with an expected CAGR of more than 170% to 2015

World Cumulative PV Production (MWp)



- PV market is growing strongly
- CPV is the fastest growing solar market segment
 - 2010 installed CPV capacity of 21.8MWp
 - Expected to reach >2GW by 2015
- CPV is being recognised as the best way forward for cost effective, large scale and reliable solar renewable energy

Source: Amrock 2011

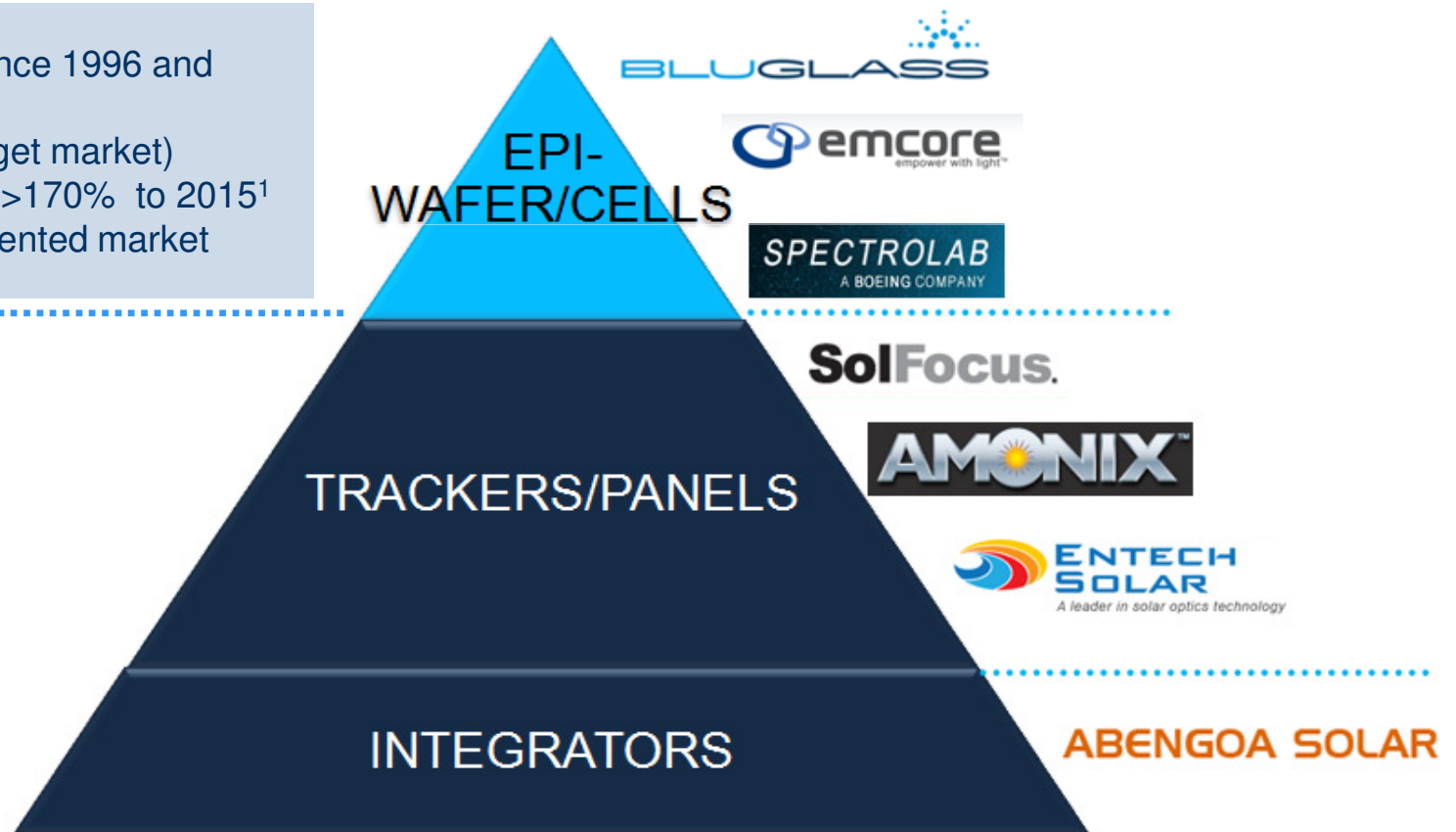
InGaN offers many potential advantages for large utility scale CPV applications

✓	High Efficiency	▪ Efficiencies of over 50% are possible
✓	Durable and Long Life	▪ Can withstand extreme temperatures, environments, radiation ▪ Significantly longer life
✓	Suitable for CPV and Space Applications	▪ Efficiency and durability make InGaN solar cells very desirable for CPV and space applications
✓	Single Material Solution	▪ Offering simpler manufacture over existing triple junction solar cells
✓	BluGlass Technology is ideally suited to manufacture InGaN	▪ RPCVD's low temperature process makes it an ideal solution for the growth of Indium-rich InGaN over competing technologies - Current high temperature (MOCVD) processes restrict Indium content to <30% - Scalable for mass manufacture

BluGlass will position itself as a developer of high efficiency nitride solar cells for CPV devices

MARKET FEATURES

- PV CAGR >42% since 1996 and accelerating
- CPV (BluGlass' target market) expected CAGR of >170% to 2015¹
- High margin, fragmented market

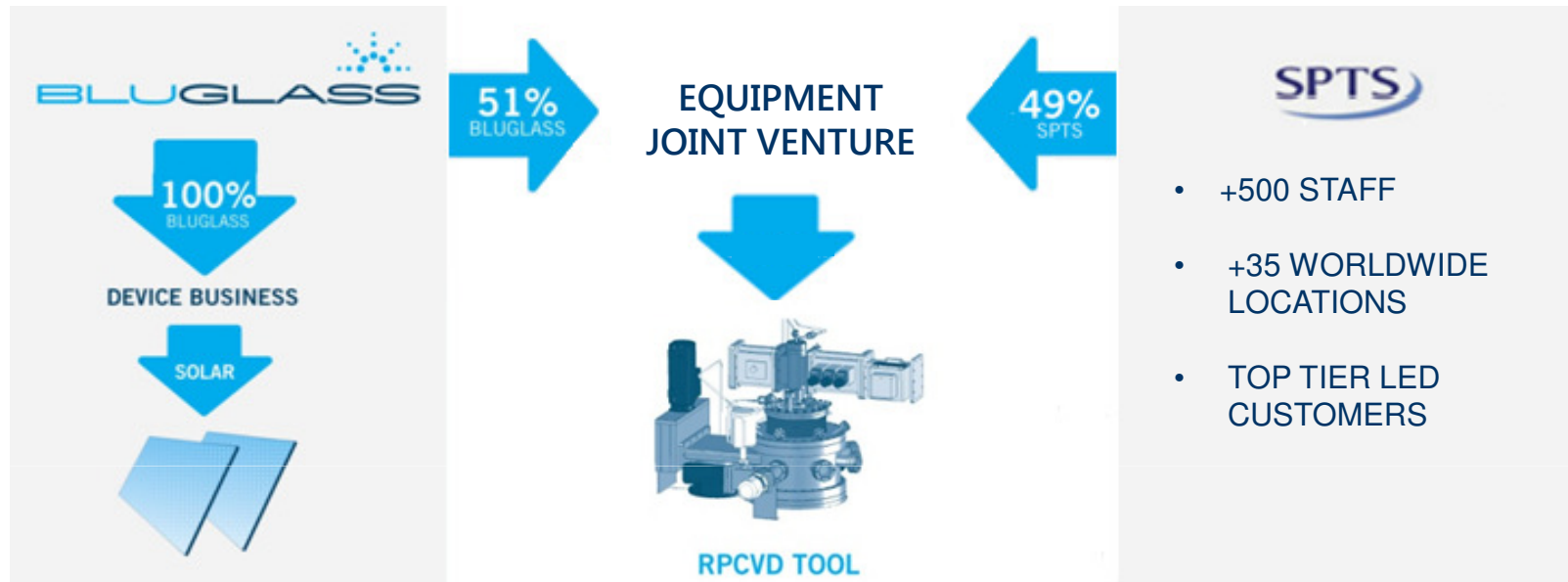


1. Source: Amrock 2011



BLUGLASS

STRATEGIC PARTNERSHIP



SPTS	Operations	Capital	IP	Control
▪ Global equipment provider to LED market ▪ +35 worldwide locations ▪ Top tier LED customers	▪ Research facility and team in Silverwater ▪ Second team and demo/testing site in Newport, Wales	▪ Jointly funded in proportion to ownership	▪ Exclusive licence of BluGlass Equipment Technology ▪ Developed IP owned by the JV	▪ JV includes change of control provisions ▪ No standstill in relation to BLG shares

- JV agreement with SPTS, SPTS invests A\$5.2m in BluGlass



30 AUGUST 2010

- SPTS establishes JV team in Australia and seconds experts



OCTOBER 2010

- Establish demonstration system for testing at strategic SPTS site (Wales, UK) with access to global customers



JULY 2011

- Single Crystal GaN grown using RPCVD

SHORT TERM

- Single Crystal GaN grown using RPCVD – with MOCVD equivalent properties

SHORT TERM

- Scale to next generation manufacturing size

MEDIUM TERM

- Establish demonstration model at top tier customer site for demonstrating and testing

LONG TERM

- Equipment sales, ramp up market penetration

LONG TERM



BUGGLASS

CONCLUSIONS

✓	Breakthrough Technology	▪ RPCVD developed in Australia from \$30m research investment
✓	Significant Advantages	▪ Superior performance potential for LED and PV devices ▪ Enabled through BluGlass' unique low temperature technology ▪ Environmental and cost benefits
✓	Rapidly Growing End Markets	▪ LED Market growing at 30% p.a. to US\$18bn+ by 2015 ▪ Concentrated PV market growing at 170% p.a. to 2GW by 2015
✓	Key Partnerships	▪ JV with SPTS (global semiconductor equipment provider) ▪ Significant Australian Government grants in PV ▪ Australian National and Macquarie Universities
✓	Demonstrated Progress	▪ Achievement of key milestones including commissioning of 5th generation RPCVD tool, establishment of strategic partner, and the commencement of the SPTS demonstration and testing site
✓	Approaching Commercialisation	▪ Enhanced market access and de-risked technology through SPTS JV



Thank You

74 Asquith Street Silverwater, NSW, 2128, Australia | +61 2 9334 2300 | gbourne@bluglass.com.au

www.bluglass.com.au