



# 2017 ANNUAL GENERAL MEETING

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Greatcell Solar Board and Managing Director

23 November 2017



**greatcellsolar**  
Global leaders in hi-tech solar

# DISCLAIMER

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This presentation includes forward-looking statements that are subject to many risks and uncertainties. These forward-looking statements, such as statements about Greatcell Solar's short-term and long-term growth strategies, can sometimes be identified by use of terms such as "intend," "expect," "plan," "estimate," "future," "strive," and similar words. These statements involve many risks and uncertainties that may cause actual results to differ significantly from what maybe expressed or implied in these statements. Greatcell Solar has taken care in the preparation of this presentation and believes that all statements are made in good faith and based on reasonable grounds. However, readers are cautioned not to put undue reliance on forward-looking statements. Greatcell Solar disclaims any obligation to update information contained in these forward-looking statements whether as a result of new information, future events, or otherwise.

# AGENDA

## GREATCELL SOLAR CORPORATE VIDEO

## WELCOME

Ian Neal,  
Non-Executive Chairman

## CHAIRMAN'S ADDRESS

Ian Neal,  
Non-Executive Chairman

## MANAGING DIRECTOR REPORT

Richard Caldwell,  
Managing Director

## TECHNOLOGY UPDATE

Paul Murray,  
Global Manager R&D

## SHAREHOLDER QUESTIONS

Richard Caldwell,  
Managing Director

## RESOLUTIONS

Ian Neal,  
Non-Executive Chairman

## CLOSING REMARKS

Ian Neal,  
Non-Executive Chairman

## FAUNCE & AURORA TOUR

Tour of facility for  
registered shareholders

# GREATCELL SOLAR BOARD

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Ian Neal, BCom, Dip Sec  
Non-Executive Chairman



Gordon Thompson,  
BE(Hons), M.EngSc,  
FIE (Aust)  
Non-Executive  
Director



Richard Caldwell,  
BEc LLB FFin  
Managing Director



Rob McIntyre, Ph.D  
Fundamental  
Surface  
Electrochemistry  
Non-Executive  
Director



Kim Hogg,  
Company Secretary



# CHAIRMAN'S ADDRESS



## CHAIRMAN'S ADDRESS

- ✓ "Strategy without tactics is the slow way to victory and tactics without strategy is the sound of defeat" – Sun Tsu
- ✓ Global opportunities for GSL are growing quickly
- ✓ Economic arguments are usurping purely environment based ones
- ✓ Excellent progress made in the past year on both technology and business development fronts
- ✓ CRC-P and ARENA are great examples of leveraging shareholder funds
- ✓ We are unapologetic for our risk managed approach
- ✓ We are on track to deliver on our Commercialisation Schedule

# MANAGING DIRECTOR'S REPORT

Richard Caldwell



# GREATCELL SOLAR BOARD



Richard Caldwell, BEd LLB FFin  
Managing Director



Dr Hans  
Desilvestro,  
BSc, PhD  
Chief Scientist



Dr Luca  
Sorbello,  
BSc, MA,  
PhD  
Global Sales  
& Marketing  
Manager



Chris Moore,  
BSc  
Global Head  
of Metals



Paul Murray,  
MSc  
Global Head  
R&D



Kian Niu,  
MBA (UK),  
CA, ACIS,  
B Com  
Finance  
Director



Dr Damion  
Milliken,  
BEng (Mats),  
PhD  
Chief  
Technology  
Officer



Sung Il Lee,  
BEng  
(Electrical),  
MBA  
Head of  
Business  
Development



Dr Yanek  
Hebting, PhD  
Head of  
Production



Judith  
Pritchard,  
Global HR and  
Work Health  
and Safety  
Manager

# MANAGING DIRECTOR PRIORITIES





# THE BUSINESS

## GSL Business Model

- ✓ Greatcell Solar is a manufacturer of key PSC materials, next-gen technology and PV panels – there are additional avenues for commercial exploitation including finance and installation.
- ✓ Greatcell Solar partners with leading multinational manufacturers that possess strong brands and established routes to market that are seeking to embed PSC technology into their products to diversify their product offering.

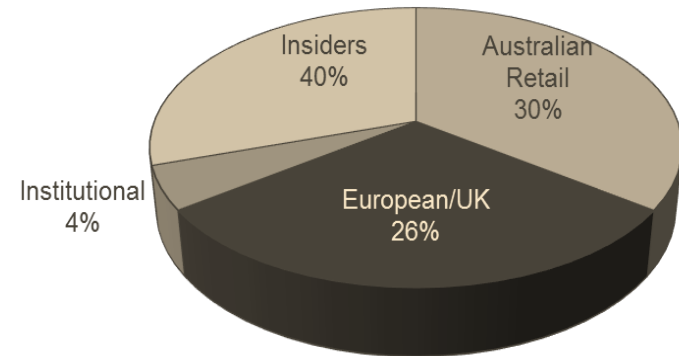
### Greatcell Solar Partnership Experience:



&

## Capital structure

> 7000 Shareholders



### Equity Snapshot

|  |                     |
|--|---------------------|
| Ticker ASX                                       | GSL                 |
| 52 Week range                                    | \$A0.17 to \$A0.225 |
| Shares outstanding (fully diluted)               | 396.3M              |
| Market Capitalisation (fully diluted) @ A\$0.185 | \$A73.3 million     |
| German Ticker                                    | D5I                 |
| 52 Week Range EURO                               | 0.11 -0.18          |



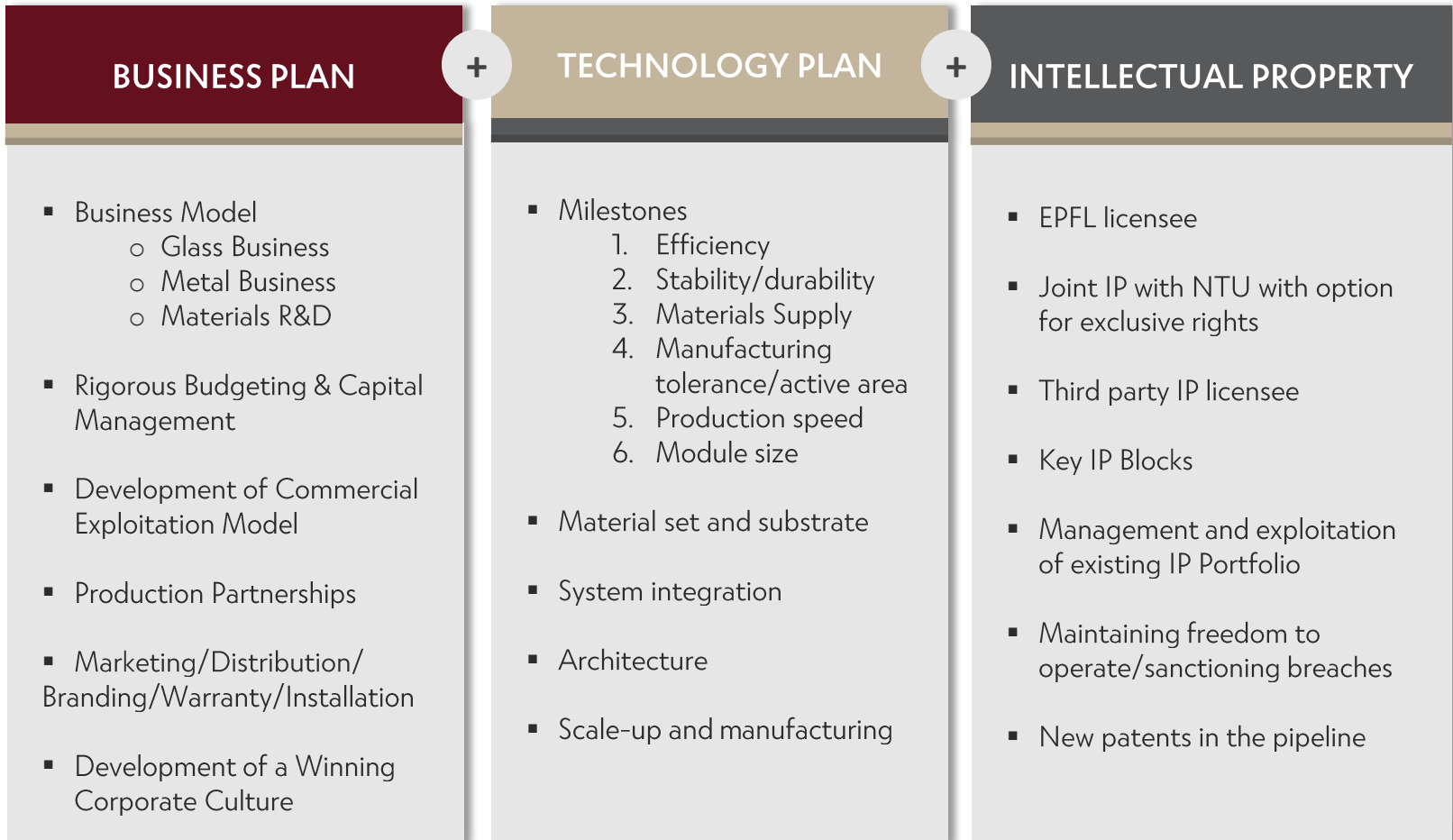
DEUTSCHE BÖRSE  
GROUP



# BUSINESS STRATEGY

Greatcell's Business Strategy has three components.

Combined, they direct the effort of global resources towards the successful commercialisation of PSC technology:



# FY 2017 HIGHLIGHTS

## QUARTER 1

- ✓ Quarterly Technical Advisory Board (TAB) milestone achieved – UV Stability for Porous Carbon (IEC 61215);
- ✓ DYE ranked Top 5 in the prestigious Australian Financial Review/Inventium Innovation Awards;
- ✓ World Economic Forum ranks PSC as a leading emerging & disruptive renewable energy technology;
- ✓ DYE secures \$3.84M R&D Tax Rebate.

## QUARTER 2

- ✓ Quarterly TAB milestone achieved – Thermal Cycling for Porous Carbon Strip Cells (IEC 61215);
- ✓ Mini-MAD Prototype commences world first in scale-up for PSC PV;
- ✓ DYE enters new financing & banking arrangements with CBA to fund emerging projects;
- ✓ DUK wins £75,000 Innovate UK Grant to fund PSC research.

## QUARTER 3

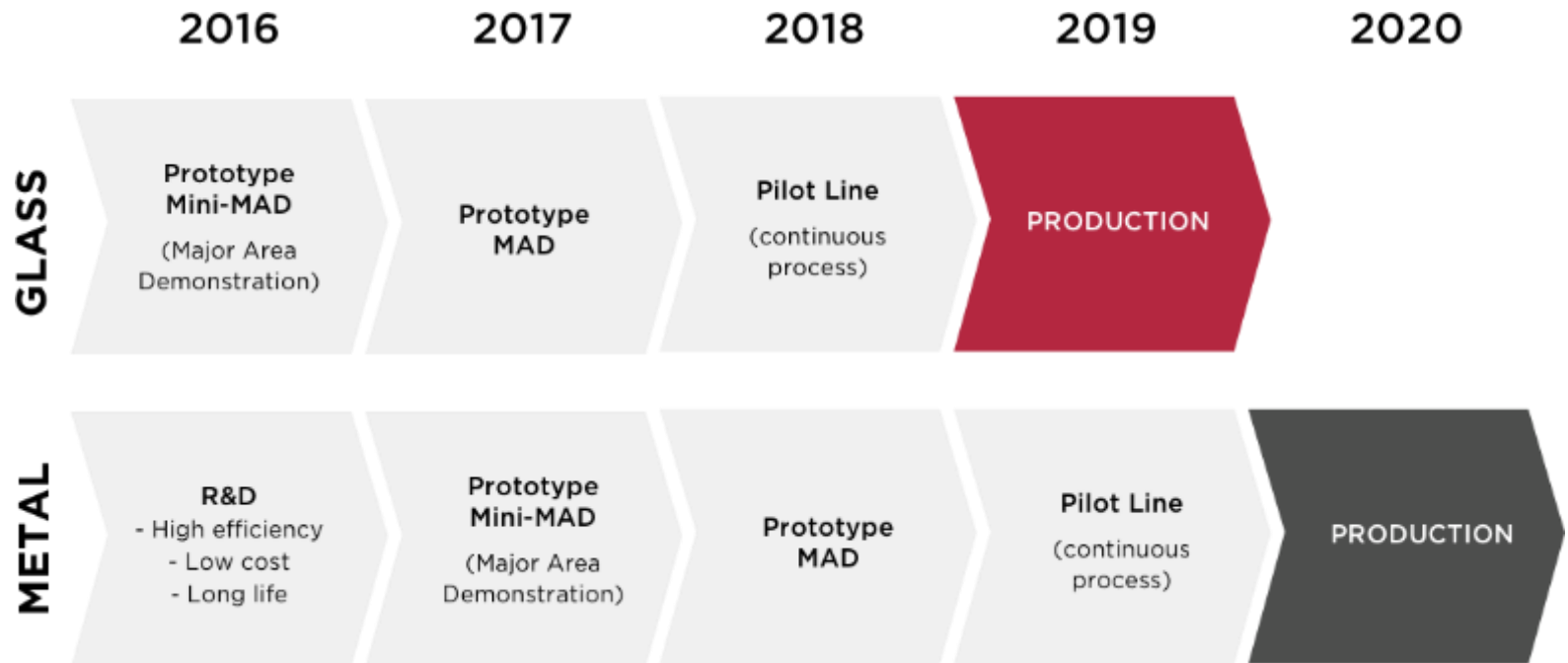
- ✓ Quarterly TAB milestone achieved – 9% conversion efficiency (MPPT) for inorganic strip cells on metal substrates;
- ✓ DYE awarded \$2.5M CRC-P grant from Department of Industry in collaboration with CSR and CSIRO;
- ✓ Planning commenced for co-location for prototype facility at CSIRO at Clayton, Melbourne;
- ✓ Solliance/DYE establishes world record of 12.6% for reel-to-reel PSC PV.

## QUARTER 4

- ✓ Quarterly TAB milestone achieved – 13% (MPPT) efficiency for Porous Carbon strip cells;
- ✓ Dyesol (DYE) rebrands globally to become Greatcell Solar (GSL);
- ✓ GSL signs MOU with Jinko Solar (JKS), the world's largest PV manufacturer for technology evaluation;
- ✓ Commercialisation Schedule for Glass and Steel/Flexibles updated.

## RESULTS

# COMMERCIALISATION PATHWAY





# FY2018 SOURCES & USES OF FUNDS

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- Mix of non-dilutionary (grants and rebates) and strategic investment expected;
- Greatcell to maintain reasonably constant "burn" or opex rate of approximately \$6 million - \$7 million p.a. (head count and cost reductions of \$½M introduced) after significant ATO R&D Rebate (~\$3.9M) claim;
- New financing arrangements in place with CBA to minimise capex burden
- Additional funds expected to come from emerging Australian, UK/European and Turkish grant programmes;
- Extra funds will be judiciously applied to (1) Major Area Demonstration Prototype Project, including fit-out and (2) Consolidation of Australian R&D facilities.

# GREATCELL – DRIVING SHAREHOLDER DOLLARS FURTHER

## Key Financial Trends & Ratios in the Past 5 Years

### Sales of Materials and Equipment Revenue

|              |   |
|--------------|---|
| Sales        | +35% Absolute growth through global leadership  |
| COGS         | -15% Economies of scale and headcount reduction |
| Gross Profit | +1136% Nett Profit +ve                          |

### Expenditure

|                              |   |
|------------------------------|---|
| Corporate and Administration | -27% Reduced travel & promotion                       |
| Research & Development       | +90% Acceleration of PSC commercialisation activities |

### Financial Ratios

|                             |   |
|-----------------------------|---|
| Corporate versus TCE - 2013 | +47% Absolute R&D spend has increased whilst nett corporate |
| Corporate versus TCE - 2017 | +28% spend and nett loss have fallen                        |
| R&D versus TCE - 2013       | +40%  |
| R&D versus TCE - 2017       | +63%  |
| Other versus TCE - 2013     | +13%  |
| Other versus TCE - 2017     | +9%   |

### 2017 Funding \$5M SPP = \$14.4M Total

|                 |   |
|-----------------|---|
| Dilutionary     | 35% \$1 of shareholder funds is matched by \$2 grants & rebates |
| Non-Dilutionary | 65% \$1 of shareholder funds is matched by \$2 grants & rebates |

# FY 2018 OUTLOOK

## THE YEAR AHEAD



### BUSINESS PLAN

#### BUSINESS PLAN

Secure steel commercialisation partner in Europe.

#### INVESTMENT

Maximise non-dilutionary government funding e.g. ARENA, H2O2O & institutional investment.

#### MANAGEMENT

Implementation of management restructure to accelerate commercialisation.

### TECHNOLOGY

#### R&D

Optimisation of process development in Mini-MAD project in collaboration with VDL ETG.

#### MATERIALS

Continual evaluation of cheap, inorganic materials suitable for industrialisation.

#### INNOVATION

Leveraging of global academic network e.g. NTU, CSIRO, Solliance, EPFL.

### PARTNERSHIPS

#### PROTOTYPE & PILOT LINE

Commencement of VDL ETG Phase 3 (MAD) at CSIRO, Clayton VIC - Realisation & Testing.

#### MANUFACTURE AND DISTRIBUTION

Commercialisation plans with Australian collaborators CSR & CSIRO. Formalise European Glass & Steel business partner in collaboration with government.

### TEAM

#### PRODUCTIVITY

Greater focus on scale-up and commercialisation. New head of business development. Modelling for Australian, Chinese, Korean, Turkish and European markets.

#### GLOBAL REACH

Subsidiaries strategically placed in key markets - UK, Italy, Korea & Switzerland.

# THANK YOU

