



# **A world-leading material technology company**

PureGRAPH® - Revolutionising material performance

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ANNUAL GENERAL MEETING 2025



- **Financial Performance** – FY25 performance commentary and key metrics
- **Manufacturing** – Updates
- **Research & Development** – Grant Programs
- **Research & Development** – Other
- **Where are we at with the commercial adoption of Graphene?**
- **Pipeline of opportunities**
- **Cement & Concrete Segment Update**
- **Key growth opportunities and pathway**

# Financial performance

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## Commercial momentum

- Ongoing increase in approved applications and sales opportunities
- Cement and concrete segment nearing to mature sales profile
- Diversified application opportunities expanding



## Forward outlook

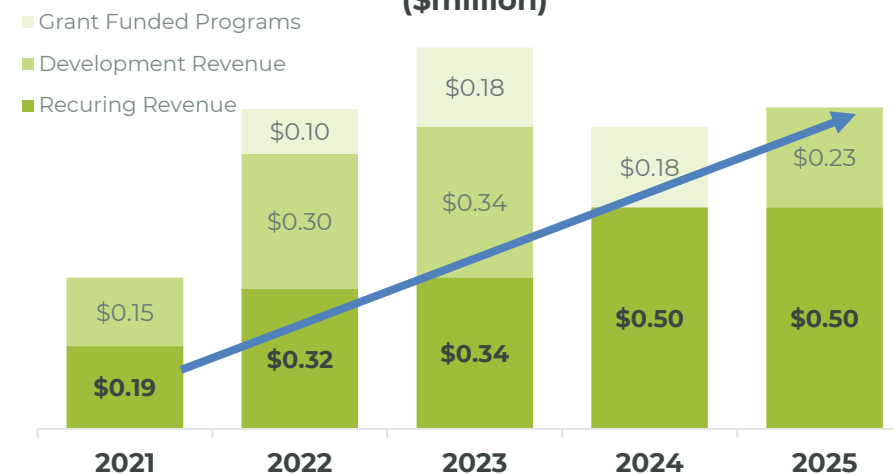
- Forecast income of circa A\$1.5m from existing client base, current development and grant programs
- Pipeline of opportunity over 18 – 24 months has potential of >A\$10m
- Continued reduction in cash burn plotting towards breakeven



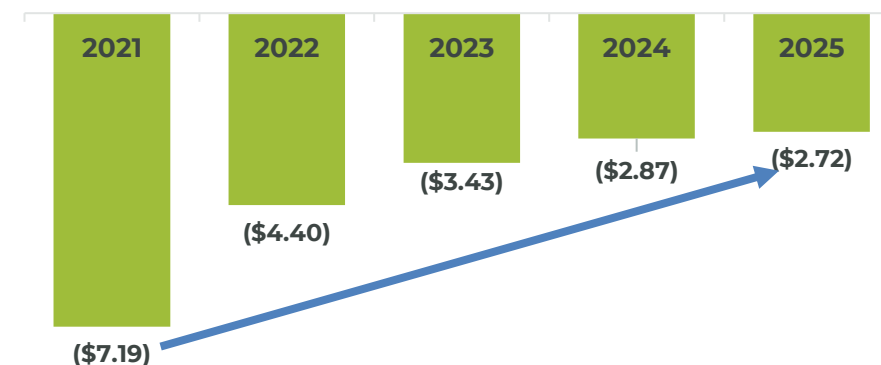
## Corporate details

- Circa \$1.6m cash
- Shares on issue: circa 836m
- Options on issue: circa 80m listed @ \$0.085 exp 06/27 (Listed)
- Share price A\$0.091<sup>(1)</sup>
- Market capitalisation: circa A\$80m

## Recurring/Development/Grant revenue (\$million)



## Operating & investing cash-outflow (\$million)



## Electrochemical Cell Optimisation

- Based on the improvements identified in the Phase One and Two Trials, Electrochemical Cell basket upgrades have now been implemented
- Overall production rate improved by **~100%** and reduced specific power consumption by **~25%** from the starting baselines

## Sizing process changes

- Process operation changes were identified, significantly reducing sizing time of all PureGRAPH<sup>®</sup> grades of material
- Process changes also improved Particle Size Distribution of products, with d90 results being lower than those previously recorded
- Further trials with sizing technology ongoing within FY2026

## Graphene Oxide trials

- Successfully made graphene oxide using an alternative graphite feedstock – expanding PureGRAPH<sup>®</sup> product line

# Research & Development – Grant Programs

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## HyPStore

- Integration of **PureGRAPH®** is key component in polymer binder for Type-V Hydrogen Tanks demonstrating improved performance at cryogenic temperatures.
- HyPStore project named winner of 'Innovation in Composite Materials' category at latest Composites UK Awards ceremony in November.



Composites UK award for the HyPStore project



## CRCP R2R

- **AUD\$188,000** over 18 months to develop graphene-based electrodes for low-cost photovoltaic cells produced using a roll-to-roll process.
- First prototype flexible PV cells released to market incorporating **PureGRAPH®** material.
- Developments ongoing with new metal oxide functional graphene to increase cell efficiency.

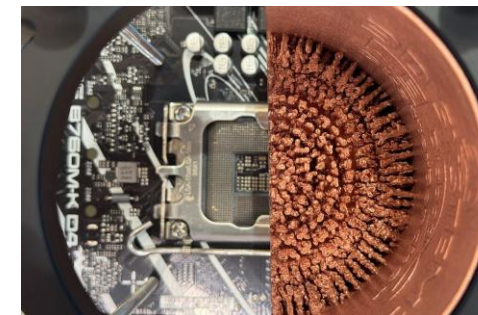


Perovskite solar cell from Halocell Energy.



## EFFICIENT

- **AUD\$68,000** over 9 months to support the scale-up of novel chemically modified graphene (CMR) for use in Additive Manufacturing (3D metal printing) of copper components for use in high-value engineering applications.
- Supports the extension of our product portfolio and routes into new high-margin markets.



Example of a copper 3D printed heatsink.



# Research & Development – Other

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## New UK Research Facilities

- Completed transition into new laboratory and office facilities in December 2024.
- New facility based in Old Trafford with excellent access to Manchester City and surrounding Innovation district.
- Cost reduction of circa **AU\$300,000** per annum has been realised over FY2025.



## Patent

- Patent filed for a modified electrochemical process to create novel metal oxide deposited graphene, leveraging cost-effective base metals such as cobalt, iron, nickel, zinc, and aluminum previously unattainable.

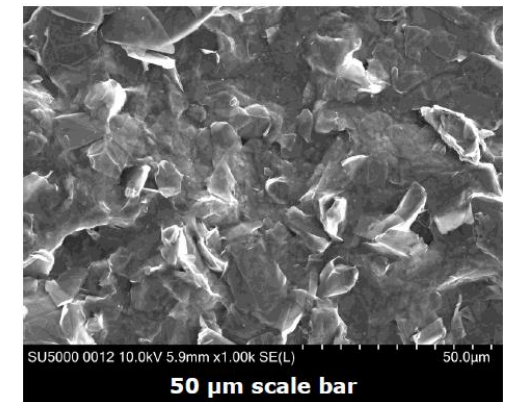


## New Product Development

- Graphite sourced from waste stream has been used as a sustainable raw material to produce new graphene oxide-type material using existing electrochemical process.
- Provides alternative source to conventional graphene-oxide manufactured via inefficient and hazardous modified Hummer's process.
- Continued development of feedstock alternatives in Graphene production.



Visit by CEO to new research facilities in Old Trafford, Manchester

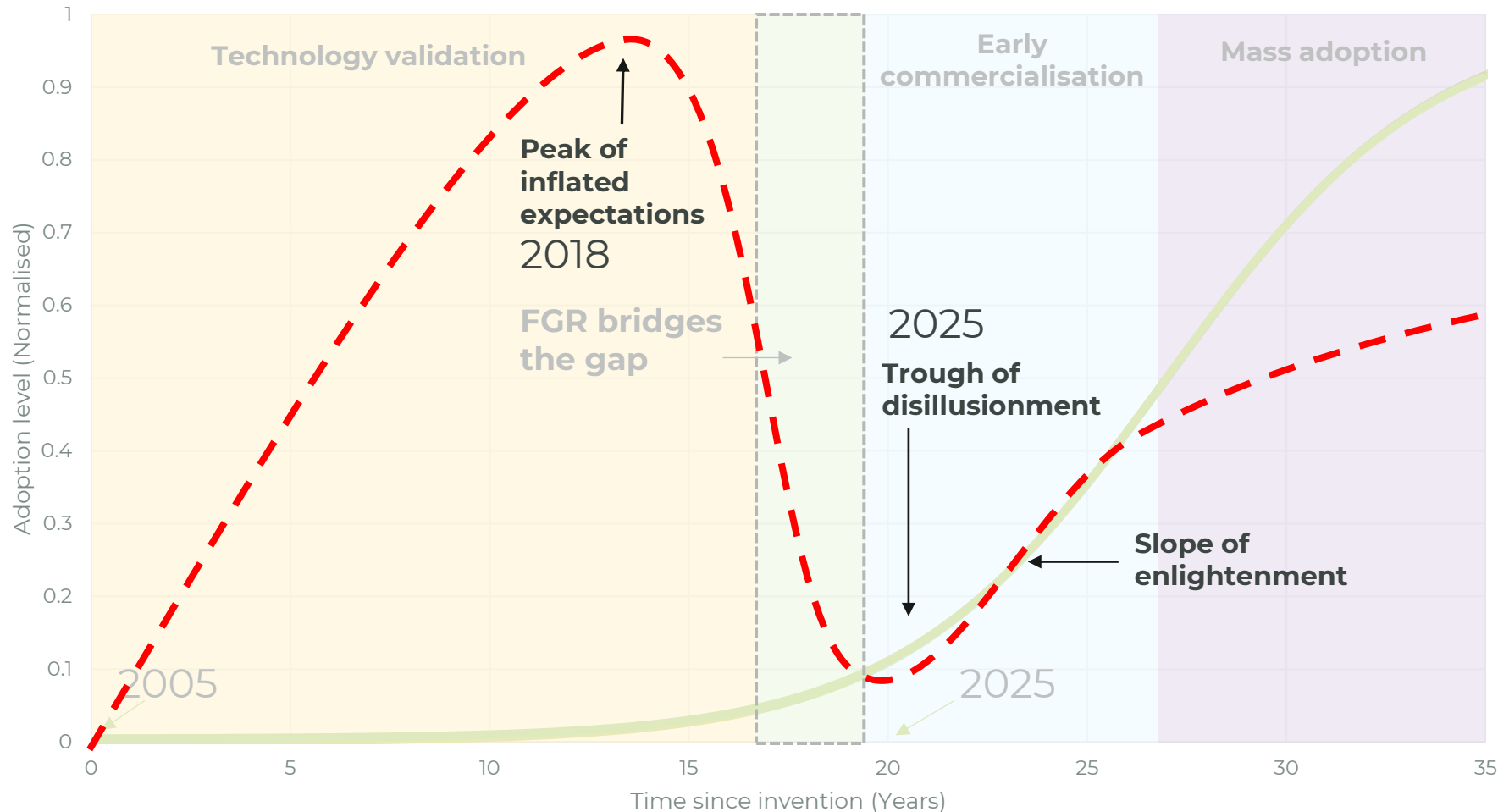


New graphene-oxide material derived from sustainable graphite source

# Where are we at?

## Commercial adoption of graphene

Discovery to deployment Commercialisation Gartner hype curve



## Technology examples

### Plastics

- Invented **1907** (first fully synthetic)
- Early adoption and **rapid growth** after 1945
- **~ 40 years** before significant growth

### Carbon fibre composites

- Invented **1958** (ref)
- Early commercial adoption and **rapid growth** in mid 1980's
- **~ 25 years** before significant growth

### Silicon microchip

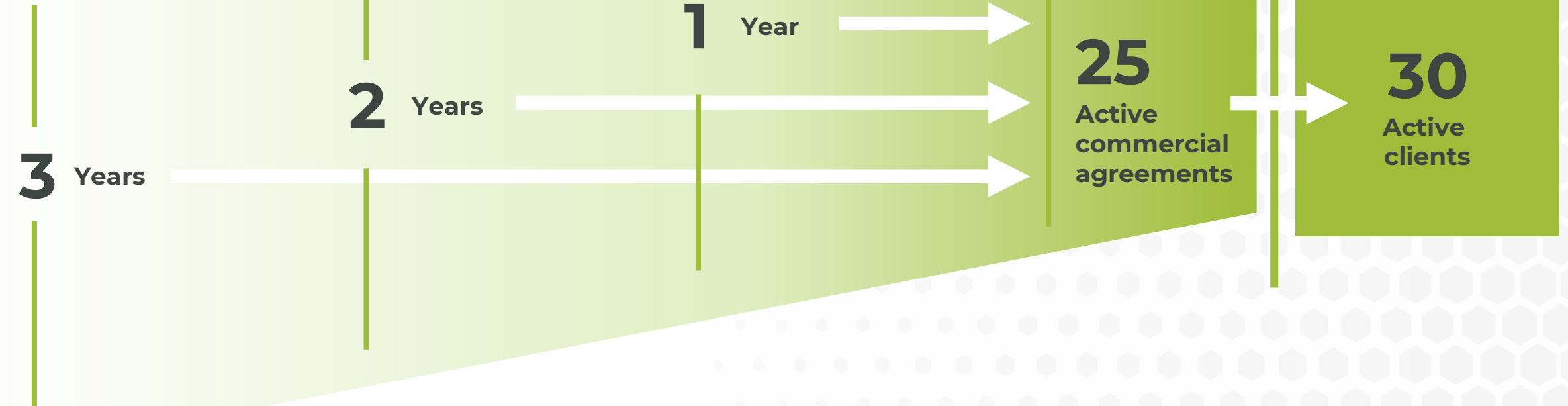
- Transistor invented in **1947**
- **First commercial use** in 1961 (**military/aerospace**)
- Commercially available for **general purpose** in 1971 (Intel 4004)
- **~ Between 15 and 25 years** before significant growth

# Pipeline of opportunities

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**350-500**

Long lead enquiries  
varying from 3 to 1 years





# Cement & Concrete Update

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## Precast Contract

- First Graphene is a subcontractor in a project with the UK's largest precast concrete supplier (FP McCann). (£15,000)
- Working with UK's largest cement producer, Breedon Group, to fulfill the order of between 40 and 60 tonnes of graphene enhanced cement.
- Around 200 tonnes of roofing materials will be produced.



## Breedon Trial (December 2025)

- Full scale production trial involving 3.2 tonnes of **PureGRAPH-CEM®** manufacturing minimum 500 tonnes of cement
- Cement will be batched by Capital Concrete (part of the UK's largest materials group) and laid as a slab at a Morgan Sindall Infrastructure (£4.7B group ARR) site.



## Other developments

- Cement and concrete waterproofing additive product containing PureGRAPH® released to market in South Africa through Glade Chemicals.
- Plant improvements to reduce embodied CO<sub>2</sub> of PureGRAPH® has knock-on benefits for use of graphene in cement and concrete



Graphene and dosing equipment in Breedon Hope Works storage shed



Concrete test cores taken from Morgan Sindall site



FP McCann's tile plant at Cadeby



Funded by  
UK Government

# Key growth opportunities and pathway

| INDUSTRY APPLICATION  | EXISTING ENGAGEMENTS                                                                                                                            | NEXT 12 - 18 MONTHS                                                                                                                                                                                        | OPPORTUNITY (\$)                                                                                                                                |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| CEMENT & CONCRETE     | <ul style="list-style-type: none"> <li>Breedon – Production of CEM II Graphene enhanced Cement <b>circa 1,000 tonnes</b></li> </ul>             | <ul style="list-style-type: none"> <li>Move from trial to adopted technology within the UK cement segment.</li> <li>Execute sales contracts with growing client base as validated</li> </ul>               | <ul style="list-style-type: none"> <li>Opportunity pipeline across the UK alone, in development and commercialization – circa \$500m</li> </ul> |
|                       | <ul style="list-style-type: none"> <li>2 Additional Cement Producers – CEM II Graphene enhanced Cement evaluation</li> </ul>                    |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>F.P. McCann – Concrete roof tile trial to <b>reduce CO2 emissions</b> by 20%</li> </ul>                  |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Breedon – Permanent works slabs to <b>reduce CO2 emissions</b> by 20%</li> </ul>                         |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Morgan Sindall – UK/London light rail program to <b>reduce CO2 emissions</b> by 20%</li> </ul>           |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Bisley – Australia concrete roof tile manufacturer - to <b>reduce thickness and weight</b></li> </ul>    |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Others – &gt;50 potential clients trialing PureGRAPH in a variety of Concrete Applications</li> </ul>    |                                                                                                                                                                                                            |                                                                                                                                                 |
| COMPOSITES & POLYMERS | <ul style="list-style-type: none"> <li>Senergy – <b>Solar thermal conductivity</b> applications for water heating and batteries (PR)</li> </ul> | <ul style="list-style-type: none"> <li>Move from trial regular ordering cycle</li> <li>Execute licensing and production agreements</li> <li>Complete fire testing trials and move to production</li> </ul> | <ul style="list-style-type: none"> <li>Polyurethanes in Australian mining – circa \$30 to 50m of Graphene sales</li> </ul>                      |
|                       | <ul style="list-style-type: none"> <li>European Doctor Blade Producer – <b>Mechanical enhancement</b> of polymer Doctor Blades</li> </ul>       |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Friction Wear Pads – <b>Mechanical and lubricity enhancement</b> of recycled nylon</li> </ul>            |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>US Footwear Company – Compounded enhanced rubber for <b>mechanical enhancement</b></li> </ul>            |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Carbon Fibre – Carbon Fibre composite additives to <b>enhance mechanical properties</b></li> </ul>       |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>KRUSHERS – Safety work boots to <b>enhance mechanical/wear properties</b> (PR)</li> </ul>                |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Leading Polyurethane Producer– <b>enhanced fire-retardant</b> properties</li> </ul>                      |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Drilling Collar Producer – <b>enhanced mechanical</b> properties, moving to production</li> </ul>        |                                                                                                                                                                                                            |                                                                                                                                                 |
|                       | <ul style="list-style-type: none"> <li>Vector Group – <b>Fire-retardant</b> building materials, expand client base with Technology</li> </ul>   |                                                                                                                                                                                                            |                                                                                                                                                 |

Note: this is a snapshot of key opportunities, with several others expected to mature in the near-term.

# Key growth opportunities and pathway

| INDUSTRY APPLICATION        | EXISTING ENGAGEMENTS                                                                                                                                                                         | NEXT 12 - 18 MONTHS                                                                                                                              | OPPORTUNITY (\$)                                                                                               |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| COATINGS & ELASTOMERS       | <ul style="list-style-type: none"> <li>Protective <b>mining wear liners, screen media, conveyor belts</b> and elastomer coatings with enhanced abrasion and corrosion resistance.</li> </ul> | <ul style="list-style-type: none"> <li>Secure supply contract into conveyor belt, screen media and polyurethane coating applications.</li> </ul> | <ul style="list-style-type: none"> <li>Australian market size of &gt;\$50m in annual graphene sales</li> </ul> |
| ENERGY GENERATION & STORAGE | <ul style="list-style-type: none"> <li>Halocell – Industrial-scale production of lower-cost <b>perovskite solar technology</b>. (PR)</li> </ul>                                              | <ul style="list-style-type: none"> <li>Expand to scale up Carbon/Graphene Coating in-house and drive sales with client.</li> </ul>               | <ul style="list-style-type: none"> <li>Global market size of \$10.5b</li> </ul>                                |

Note: this is a snapshot of key opportunities, with several others expected to mature in the near-term.

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