

## FIRST GRAPHENE 2021 ANNUAL GENERAL MEETING CHAIRMAN'S ADDRESS

Every start-up company needs to go through a procession of changes as it goes from concept to production and along to commerciality. First Graphene is at the point where an influx of new blood and vision needs to take over, and it has. The new team is now charged with establishing commerciality of the business on a solid footing. It needs a different set of eyes and vision. Different strategies and tactics are being employed with a strong focus on the commercialisation of our technically superior PureGRAPH product range.

The year to 30 June 2021 will be remembered as the year of the pandemic by the entire world. It hasbeen the most significant global event that any of us alive today have experienced and we are not outof the woods yet. Everyone and every company hasbeen affected to a lesser or greater extent, and I suppose every chairman's address will mention it as a matter of procedure.

The biggest impacts on First Graphene have been twofold. Firstly, a number of our prospective customers were significantly slower in moving to incorporate PureGRAPH® into the products due to lockdowns that restricted the availability of workers and inhibited regular production schedules. A level of heightened caution worked against any suggestion of accelerated innovation. Thus, we were not able to deliver the sales growth we had earlier anticipated. Secondly, there were many months during which our research and product development programs were interrupted by shutdowns of the University of Manchester, where we have operations in the Graphene Engineering Innovation Centre (GEIC).

Covid aside, 2021 was a year that involved a changing of the guard at First Graphene. We saw the retirement of both the CEO and CFO, who had

been with the Company since 2012. They comprised the key management team for approximately 10 years, initially as a mineral exploration company and for the last five years as a graphene visionary.

When First Graphene started out on the graphene journey there was no road map to follow. It was almost a case of the blind leading the blind. All we knew was how wonderful graphene was supposed to be and what a great future awaited those who were willing to embrace this wonderful 2D nanomaterial. It was a very steep learning curve.

First Graphene quickly realised that a major obstacle to the advancement of the segment was the availability of a reliable supply of graphene of consistent quality, irrespective of price. No manufacturing company would look to introduce graphene to their product lines if they could not see clear supply lines to make the change worthwhile. Many companies that experimented with graphene expressed frustration owing to the mixed results they achieved in test work, attributable to the lack of consistency from one batch to the next.

First Graphene set about addressing these concerns by taking a bench-scale graphene production methodology, pioneered by the University of Adelaide, and scaling it up firstly to a pilot plant size,



and then to a full commercial-scale manufacturing facility of Henderson, south of Fremantle in WA.

In getting to this position, the Company had to grapple with another chicken and egg conundrum. Nothing could happen without a production facility, but no-one was going to buy the product and make changes to their production lines if they could not see tangible evidence that there was a real and reliable supply.

As they say, Rome wasn't built in a day. The pioneering of new technology, taking it from the point of invention to commercial, profitable scale involves many steps and requires many different skills to meet the ever-evolving challenges along the way. Having shown that we can make graphene, your Company has recognised that the next major challenge is to sell volume to the target markets. It is not just a matter of putting our For Sale sign on the door because there is no established market already operating that we can simply enter with a promise of better product than what industry is already buying. We have to play a leading role in developing the market by interfacing with industry to show how much better their products will be with the incorporation of graphene. At the same time, we have to show how individual companies will achieve

stronger sales growth, through increased market share, when producing superior products.

Every start-up company needs to go through a procession of changes as it goes from concept to production and along to commerciality. Just as with a mineral exploration company, that is staffed by geologists who have to stand aside to enable the engineers to do their job, First Graphene is at the point where an influx of new blood and vision needs to take over, and it has. The recently retired team was instrumental in delivering production capability. The new team is now charged with establishing commerciality of the business on a solid footing. It needs a different set of eyes and vision and it involves different skill sets. Different strategies and tactics are required.

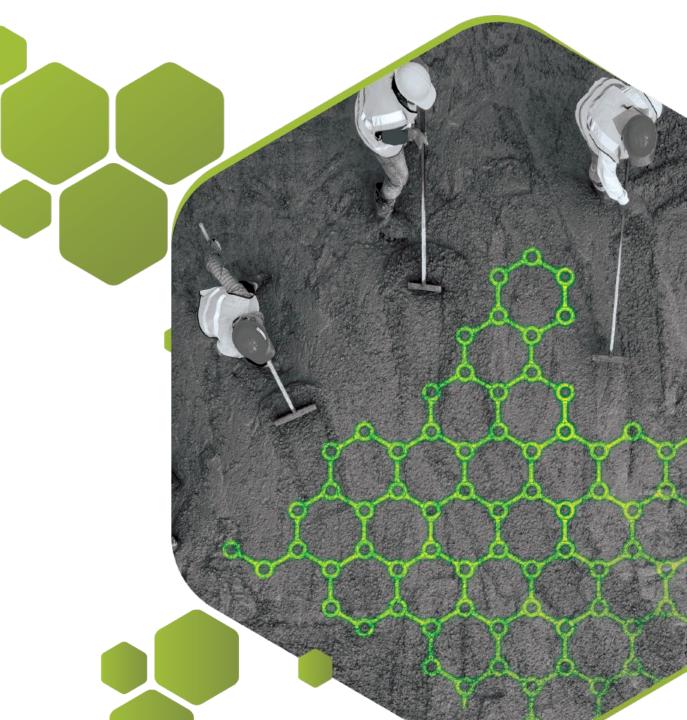
We are confident that the changes instituted this year have placed First Graphene in the best possible position to maximise the graphene opportunity before us.

#### Warwick Grigor Chairman





ANNUAL GENERAL MEETING PRESENTATION – MD/CEO NOVEMBER 2021



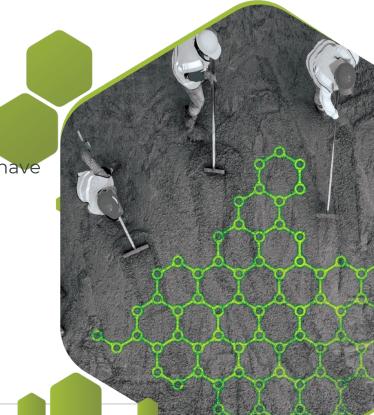
- Welcome
- A year of change
- FGR A materials technology company
- Commercialization process
- Market segments and the Commercial Team to take these forward
- A taste of what's in progress
- Green Tech Cement/Concrete, Kainos, Supercapacitors
- Board changes
- Wrap up key messages
- Hand to CFO for Finance Update



#### ASX:FGR – AGM PRESENTATION



- Change of CEO and CFO leading to a reset of overall strategy
- Switch from process/capacity investment, to revenue generation (passive to active)
- Developed materials segment structure and associated GTM strategies
- Recruited an industry specific Commercial Team with technical & sales skills
- Revised Board of Directors with critical skillsets to take FGR forward
- Revised key processes ERP system, legal, consultants and Co-Sec
- Personnel restructure, recruitment of commercial team, revised remuneration policy, we have now reduced personnel costs by >\$700k p.a.
- Revised strategy on R&D to be critically linked with path to revenue
- Record revenue Q4 FY21 of 58% of total FY21 revenue, and record PureGRAPH revenue Q1 FY22 of 40% of total FY21 revenue





We have built manufacturing capability and capacity, we continue to build technical knowledge and support to navigate adoption of graphene, we continue to grow our client support and application validation skills and ultimately build a brand –PureGRAPH



We understand our markets, we have gained the skillsets where we had gaps by arming ourselves with industry sourced material experts, and we have developed go-to-market strategies (GTM)



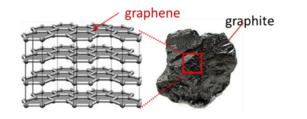
We are in the process of executing GTM strategies to grow revenue through early adopters, targeted research and development in areas that grow demand, and **drive sales and adoption through the proven** science behind graphene



We are growing downstream in the product segments to increase margin, better control value proposition, move into adjacent technologies and ultimately build a commercially viable business

## FGR-A materials technology company





# Vein Graphite and Chemical Exfoliation

- High purity vein graphite
- Electrochemical Exfoliation
- High yield processing
- Low waste



Industrial Finishing and

6-Sigma quality control

Repeatable standards

Quality is key difference

**Quality Assurance** 

Modular finishing

• At line testing





# Third Party Formulators and Partners

- Internal/External formulators
- Industrial/academic solution development
- Mobile across value stream

### Graphitic Material Product Differentiators

- PureGRAPH Powder/AQUA
- Masterbatches
- Liquid Admixtures
- Cement Grinding Aids
- Inks & Coatings
- Continued expansion

## Commercialisation process

### Production capability and capacity

- 100 (t) per annum with minor optimization
- Short lead time to increase capacity, focused on cheap, renewable energy to support our ESG story
- Grant and investment only when demand justifies

### Progress towards positive cashflow

- Continued efforts to reach breakeven a) increase demand/revenue, b) maximize segment specific margin, and c) controlled cost base
- Working to reduce the historical 20(t) breakeven point by reducing cost base and driving revenue
- Better focused R&D spend with clear path to revenue

### Strategic appointments

• Recruitment of industry Commercial Managers

### Early adopter production clients

- Aquatic Leisure Technologies swimming pools
- Steel Blue work boots and safety footwear
- newGen Group mining wear materials
- Ascent Shipwrights GRP boats
- Others not under structured Supply Agreements

### **Development clients/applications**

- Coatings thermal, electrical and anti-corrosion, consumer textiles, electronics and fire retardancy
- Plastics solar thermal roofing tiles, thermal and electrically conductive casings, boats, abrasion
- Cement/Concrete liquid grinding aids and admixtures
- Geotextiles conductive construction textiles
- Rubbers mining wheels, gloves/PPE, shoes and apparel
- And many more...



INKS

\$151BN market with predicted CAGR of 5.4% to 2028 (Source: Fortunebusinessinsights & Marketresearchfuture) where graphene additives enhance resistance against water, corrosion, abrasion and fire, whilst imparting increased flexibility and strength to the product. Graphene is adding benefits via its inherent antistatic, electrical conductivity, EM shielding and thermal conductivity properties.

### ENERGY STORAGE

\$41.1BN Li-ion battery devices market predicted to almost triple by 2030 with CAGR of 12.3% and Li-ion battery anode materials market predicted to reach \$6.3BN by end of 2027, growing at a CAGR of 12.0%. Supercapacitor device market projected to grow to \$720M by 2025 at a CAGR of 12.0%. These are high value opportunities in which graphene has been proven to provide significant performance advantages. Green hydrogen market expected to reach \$2.28BN by 2027 with a CAGR of 14.2%.

## Commercial sales team

## first graphene



**Neil Armstrong** Commercial Manager -**Composites & Plastics** 

- Chemical engineer with 10 years commercial experience
- Significant role in developing FGR's production facility and facilitating early adopters of PureGRAPH®
- Previously held roles with Wear Systems Solutions



Todd McGurgan Commercial Manager -Cement & Concrete

- More than 25 years experience in the alobal cement industry
- Former leadership position at Holcim Australian & N7
- Previous roles include BASF, Cement Australia. Sunstate Cement and Readymix



• More than 25 years

Marine industry

Chartered Naval

and Asia

experience in the

Architect in Europe

• Expertise designing,

engineering and

America's Cup and

structures for

other boats

producing composite

Matt Curthoys Commercial Manager -Marine Composites & Windfarms



Peter Osborne Commercial Manager -Rubbers & Flastomers

- Almost 30 years technical and commercial experience in the chemical industry
- Held leadership positions at Wanhua Borsodchem. Notedome I td and Axalta Coating Systems
- Previous roles include BD and Product Management at Huntsman and Baxenden



Shoaib Qureshi Commercial Manager -Coatings and Inks

- 30 years' experience in the coatings and related industries
- . **Business and** technical management experience
- Senior roles within the specialty chemical and coatings sectors including Dow, BASF, PSI and Axalta



Recruiting Commercial Manager -Energy Storage

• TBC

# Core markets and growth



## Green Tech – Cement & Concrete

Cement and concrete industries under increasing pressure to reduce CO and develop greener products

- Global Cement and Concrete Association (GCCA), on behalf of 40 leading cement and concrete manufacturers, committed to cutting carbon emissions by 25% by 2030
- In 2020:
  - 14 billion m<sup>3</sup> of concrete produced globally
  - 4.2 billion tonnes of cement produced globally
- Cement industry is one of largest producers of CO<sub>2</sub> globally
- Approx. 900kg of CO<sub>2</sub> is emitted for every tonne of clinker produced (kiln process), creating up to 8% of global manmade emissions
- Cement is made of approx. 85% Clinker

• PureGRAPH<sup>®</sup> enables lower clinker factor cement, 10 – 20% reduction, while maintaining performance requirements

 $_{2}$  emissions

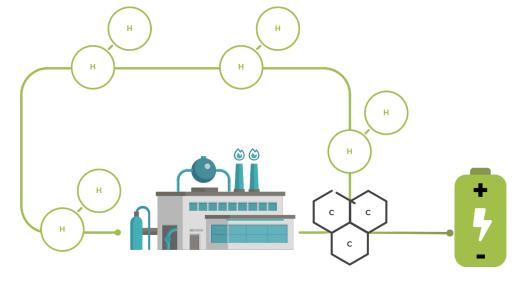
- Subsequent low clinker cement which would enable ~ 10 20% reduction of CO<sub>2</sub> produced
- Conservative addressable market of 420,000 tonnes of Graphene,

# First Graphene is part of the change towards greener cements and concretes

First Graphene has acquired patents to hydrocarbon conversion technology, developed by Kainos Innovation, to enable Petroleum companies to pivot into renewable energy

- One-step hydrodynamic cavitation process converts petroleum feedstock to battery grade graphite, graphene and green hydrogen
- Highly scalable using standard equipment
- Sets pathway to provide oil and gas sector with diversified green energy options to help meet demand of growing EV market
- Patents recently granted by the US Patent Office
- Company actively seeking industry partners to commercialize process





Research and testing continues to develop the world's best supercapacitor materials using an innovative method involving metal oxide decorated graphene in lieu of activated carbon

- Targeting supercapacitors with high energy storage capacity AND high-power density, plus fast recharging capabilities
- Designed to work alongside batteries to enhance performance
- Potential solution to develop larger EV makes and models
- Current testing indicates 2 to 3 times performance improvement over competitor products that use activated carbon
- First Graphene holds worldwide exclusive license to the technology, which has been developed with input from the University of Manchester, WMG UK and University of Belfast



## Executives and Board of Directors

## first graphene



Michael Bell Chief Executive Officer

- International sales, engineering and business leadership expertise across a diverse range of industries
- 20 years' experience in high growth across both SME and Corp. environments - former Senior Vice President of ST Engineering Group Singapore
- Bachelor of Science -Physics, Management Science University of Canterbury



Aditva Asthana Chief Financial Officer

- More than 15 years experience in finance and business across Australia and Asia
- Significant expertise in risk management, transformation and business turnarounds with Orica Ltd and its international subsidiaries
- Held a number of CFO and Director roles in Australia, Singapore and Indonesia.





Paul Ladislaus R&D Manager

- Chartered Chemical Engineer with 20 vears' chemicals experience in operational, design, project management and R&D roles
- Extensive particle manufacturing expertise with Huntsman and Thomas Swan.
- Master's Degree in Chemical Engineering from the University of Cambridge



Warwick Grigor Non-Executive Chairman

- Respected and experience mining analvst
- Graduate of the Australian National University, with degrees in law and economics
- Former Chairman of Cannacord Genuity Australia I td
- Business leadership in carbon nanomaterials since 2012.

Dr Andy Goodwin

Ph.D. scientist with

experience in

industry

Non-Executive Director

extensive leadership

innovation and new

specialty chemicals

• 35 years in pharma &

with Sanofi, Dow

speciality chemicals

Corning Corporation

and Thomas Swan.

business arowth with



**Michael Quinert** Non-Executive Director

- Founding partner of Quinert Rodda Lawvers
- Focus on capital raising and listing rule compliance
- Over 20 years experience with ASXlisted companies in the capacity as legal counsel and director. in the mining and technology sectors
- Non-Executive Chairman of West Wits Mining Ltd.

## Investment highlights







#### 1. CAPACITY

Our purpose built, large-scale production facility, has the capability to respond to growing demands and sales order quickly and efficiently. We are the largest producer of commercial grade graphene – PureGRAPH® is a commercial grade, high volume and high quality/repeatable specifications adaptable to many products and industries.



Our focus is on unparalleled quality assurance, customer satisfaction and quality products independently verified. We are strategically positioned with a first mover advantage having already commercialised graphene into a diverse range of products relevant to many sectors and applications including cement, composites and rubbers among others.



#### 3. GROW TH STRATEGY

The appetite for graphene among many of the world's most important markets continues to grow, while we apply a strategic focus to commercialise the business and ramp up our global sales initiatives, the opportunities for graphene are seemingly limitless.

#### 4. GLOBAL ESG STORY

Our graphene products make industries and clients significantly more ecofriendly. Graphene offers major benefits to all parts of everyday society and sectors – from across the mining supply chain, to cement, composites and modern technological devices, renewables and energy storage.

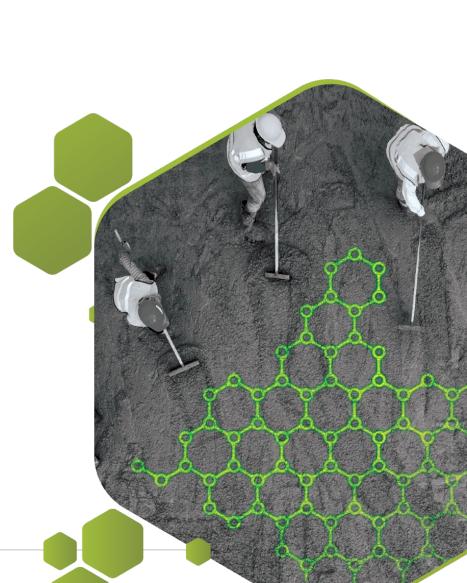
#### 5. OPPORTUNITY

With global demand for graphene promising to develop an extraordinary growth curve, now is the time to be involved with a well-managed and credentialed company that has a clear commercial focus to gain greater market share.

## Wrap up -key messages

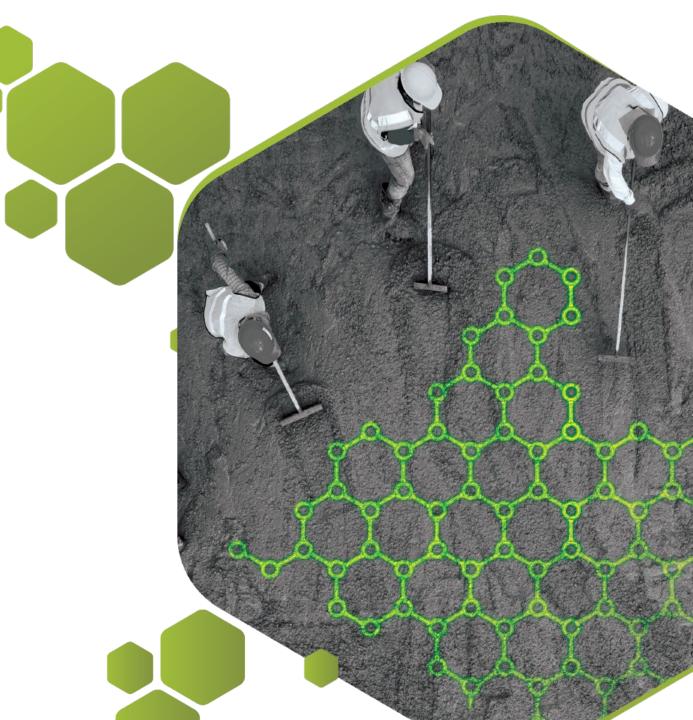
- With our commercial sales team now established, clear market segments, and focused GTM strategies in place, we are now well positioned to continue an exciting growth story. Our target markets have been determined by areas we know benefit from Graphene, have a sensible implementation path, and drives significant demand in PureGRAPH
- Our R&D spend will be focused on opportunities with a clear path to revenue, and will include a "Green Tech" factor
- We will hold further investment into production capacity until demand dictates, or is driven by the need to extend our product offering
- Looking forward, our reporting and communications on developments and opportunities will be data based, with clear expectations, timelines and metrics

## Thank you





FINANCIAL REVIEW – CFO & COMPANY SECRETARY NOVEMBER 2021



## Financial Results Overview

Full Year ended 30 June	2021	2020	Variance
	A\$m	A\$m	%
Sales Revenue	0.34	0.29	<b>0</b> 17%
Reported Operating Profit / (Loss)	(6.3)	(5.4)	🥚 (17%)
Underlying Operating Profit / (Loss) (Reported Operating Loss, less Non-Recurring/One-off Costs)	(5.1)	(5.4)	6%
Non-Recurring / One-off Costs*	(1.2)	-	(0%)

\*Loss / Costs represented as a negative number



### Sales Growth

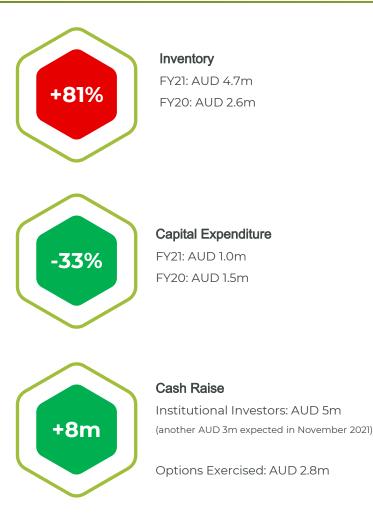
 Sales improved by 17% over FY2020 as result of a strong Q4 performance with steady orders from early adopters – ALT, Steel Blue and newGen Group.

### Underlying profitability improved

- FY2021 results were significantly impacted by one-off costs namely contractual payments to retiring directors (AUD 0.9m) and a non-cash partial write down of the company's investment in 2D Fluidics
- Excluding these one offs the underlying result improved by 6%
- Impressive Q4 result in FY 2021 sets up a strong platform for an improved FY2022 performance.

## Cash Performance

first graphene



### **Operational Performance**

- Inventory continued to grow in 2021 as a result of COVID impacts to customer projects and continued development of different product lines.
- Capital expenditure was significantly curtailed to manage working capital and will continue to be critically reviewed to ensure maximum shareholder value is generated from any future investment

### **Investor Confidence**

- In FY 2021 FGR signed a Share Placement Agreement with Specialty Materials Investments to secure AUD 8m funding, thus underwriting its Growth plans over the coming years.
- Investors continued to show confidence in the company with AUD 2.8m worth of options converted during the year

## Outlook

### **Increased Sales**

• Under the Company's re-focused commercial strategy, the aim is to deliver a significant multiple increase in sales in 2022

#### Improving Cash-Flow

- Implementing new safety stock levels and managing stock in line with increased sales activity
- Targeted reduction in cash costs of >15% through renegotiated contracts despite adding four new commercial managers.
- Revised remuneration policy to minimize cash burn

### **Targeted Investments & Divestments**

- FGR will target to only make cash investments that accelerate sales growth
- FGR aims accelerate partnership opportunities with downstream graphene enhanced product developers
- Previous investments that cannot make a commercial return in the short to medium term will be deprioritized or wound-up (as is the case with 2D Fluidics)





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