



# **Quarterly Activities Report: December 2024**

First Graphene Limited (ASX: FGR; "First Graphene" or "the Company") is pleased to provide an update on the financial and operational performance for the quarter ending 31 December 2024.

# **Highlights**

- PureGRAPH® arrives in UK ahead of third trial with cement producer, Breedon Group
- Permeability benefits of graphene validated in large-scale trials in the UK and South Africa
- Patent secured for cost-effective process utilised in hydrogen generation
- Rapid expansion into leading global markets through new distribution deals
- Pipeline of commercial opportunities advances with new purchase in Brazil

# **Financial performance**

First Graphene reported a combined income for the second quarter of FY2025 of circa A\$148,000 (unaudited), comprised of circa A\$125,000 in graphene and paid development sales and circa A\$23,000 in grant-funded programs. The graphene sales revenue was primarily generated from the composites and plastics segments.

The Company's financial position was supplemented with the receipt of a tax rebate of circa A\$166,000 for research and development work completed in the United Kingdom, subsequent to quarter's end.

An additional R&D tax rebate of circa A\$404,300 was also received for work conducted at the Henderson facility in Western Australia, primarily focussed on process improvement and development of a Graphene Oxide product line.

Both sets of funding further reinforce the benefits of First Graphene's research and development to broader industry.

The recognition by industry of the commercial applications of PureGRAPH® has also been reflected in the Company's financial receipts for January, received subsequent to quarter's end, including sales of circa A\$50,000 and additional grant funds of circa \$17,000.

The Company continues to maintain a strong trajectory towards cash breakeven, supported by a pipeline of commercial opportunities anticipated to launch over the coming 12 – 18 months.

One of these opportunities advanced during December, with the maiden purchase of PureGRAPH® and reoccurring orders received from a textile company in Brazil.

Additional opportunities expected to materialise over the next 12 months include supplying products for bearing lubricants, anticorrosion coatings, fire retardant construction materials and PET packing.

#### **ASX ANNOUNCEMENT**



# Segment updates

#### Cement and concrete

First Graphene made significant advancements in the cement and concrete industry, as work progressed multiple pathways to commercialisation of PureGRAPH® in this sector.

The shipment of more than three tonnes of the Company's cement and concrete focused product PureGRAPH-CEM® arrived in the United Kingdom during the quarter, ahead of a third trial with Breedon Group.

The trial will see the Company's product implemented into a real-world environment, with the project expected to further validate the dispersion and compressive strength benefits of PureGRAPH-CEM®, realised during lab work by Kirton Concrete Services, at an industrial scale.

Results are anticipated within a few weeks after the cement has been poured, and data collected will be distributed to interested partners and potential future clients.

### **Dual durability trials across UK and South Africa**

First Graphene has also supplied PureGRAPH® for multiple trials across the UK and South Africa, to showcase the durability of graphene enhanced cement and concrete.

The Company's product will be used to develop graphene enhanced repair mortar, which will be tested for improved durability and cost-effectiveness.

This trial will further validate significant improvements in permeability as detected during testing of a graphene enhanced concrete slab in South Africa.

This project found a PureGRAPH® enhanced slab showed an improvement in permeability of more than 33% compared to standard concrete, reinforcing its ability to increase longevity of concrete structures.

This research, when combined with results from other global trials, strengthens the evidential benefits of First Graphene's products for the broader cement and concrete industry.

#### **Energy generation and storage**

#### Patent secured for process required for hydrogen production

The Company filed a patent for its unique process to create metal oxide deposited graphene for electrocatalysts, used in the production of hydrogen, subsequent to quarter's end.

The new process uses existing equipment and leverages cost-effective base metals such as cobalt, iron, nickel, zinc, aluminium, vanadium, and copper.

First Graphene's process is used to create graphene enhanced electrocatalysts, which deliver a superior performance for water electrolysis, used to generate hydrogen, due to the improved thermal and electrical conductivity properties of the material.

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The patent means First Graphene is now globally recognised as the inventor of this modified process, which could make production of hydrogen as an alternative global energy source more economic.

This complements the Company's existing patented Kainos Technology, which is the subject of a sixmonth research project, aimed at determining its commercial potential.

The Kainos Technology can produce high-quality, battery-grade synthetic graphite and pristine graphene from petroleum feedstock from the oil and gas industry, with green hydrogen produced as a by-product.

Subsequent to quarter's end, the Company secured two patents for the Kainos Technology in Australia and Korea, reinforcing the demand by both countries for critical minerals including graphite.

#### Other activities to note

#### Global presence expands with additional distribution deals

First Graphene has signed four additional deals for distribution, boosting the Company's presence in Asia and South America to cover nine global markets across a variety of segments.

A distribution agreement secured in China marked First Graphene's entry into the largest manufacturing market in the world, equating to nearly US\$5 trillion in value to the global economy.

An agreement covering Vietnam also opens a distribution pathway into a leading manufacturing nation, with the country known as the fourth largest manufacturer in Asia.

Combined, the two agreements will ensure PureGRAPH® is placed at the forefront of the textiles, coatings, composites and polymers sectors across two significant manufacturing nations.

A third distribution deal with signed subsequent to quarter's end with an operator in India, which will see non-exclusive distribution of PureGRAPH® to a range of segments over an initial five-year period.

A fourth agreement was also secured with a distribution company based in Brazil for 12 months initially, which will see First Graphene's products supplied across a variety of industries.

The Company's strategic direction to expand distributor networks will enable broader representation in key target markets, access to validated clients and customers, and increasing knowledge of the benefits of PureGRAPH® in new industries.

#### Promoting graphene on the world stage

First Graphene's Senior Development Chemist Evelyn Sigley showcased graphene's unique properties at the Paint and Coatings Conference in Barcelona in November.

The anticorrosion, conductivity and durability properties of PureGRAPH® make it an attractive additive to paint and coating applications.

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During her presentation, Evelyn explained how these properties contained within the Company's products can improve material performance and deliver sustainable outcomes for global industries.

Evelyn attended the conference alongside one of the Company's distribution partners, Keyser & Mackay, who have secured more than 60 trials of PureGRAPH® with potential clients across broader Europe.

- ENDS -

This release has been approved for release by the Chairman.

For further information please contact:

## **Investors**

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### Media

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# **About First Graphene Ltd (ASX: FGR)**

First Graphene Limited is focused on the development of advanced materials to help industry improve. The Company is a leading supplier of graphitic materials and product formulations with a specific commercial focus on large, high-growth global markets including cement and concrete; composites and plastics; coatings, adhesives, sealants and elastomers (CASE); and energy storage applications.

One of the key outcomes that these advanced materials offer is the reduction of carbon dioxide emissions, whether directly through a reduction in output of these harmful greenhouse gases or lower energy usage requirements in manufacturing, or indirectly due to enhanced performance characteristics and extending the usable life of products.

First Graphene has a robust manufacturing platform based on captive and abundant supply of high-purity raw materials, and readily scalable technologies to meet growing market demand. As well as being the world's leading supplier of its own high performance PureGRAPH® graphene product range, the Company works with multiple industry partners around the world as a supplier of graphitic materials and partner to research, develop, test and facilitate the commercial marketing of a wide range of sector-specific chemical solutions.

First Graphene Ltd is publicly listed in Australia (ASX:FGR) and has a primary manufacturing base in Henderson, near Perth, WA. The Company is incorporated in the UK as First Graphene (UK) Ltd and is located at the new trailblazing Manchester Innovation District which is a science and technology ecosystem strategically placed in the heart of Manchester, UK.

# **Appendix 4C**

# Quarterly cash flow report for entities subject to Listing Rule 4.7B

## Name of entity

First Graphene Limited			
ABN Quarter ended ("current quarter")			
50 007 870 760 31st December 2024			

Cor flov	nsolidated statement of cash ws	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	125	199
1.2	Payments for		
	(a) research and development	(56)	(136)
	(b) product manufacturing and operating costs	(129)	(272)
	(c) advertising and marketing	(105)	(215)
	(d) leased assets	-	-
	(e) staff costs	(427)	(840)
	(f) administration and corporate costs	(224)	(500)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	6	14
1.5	Interest and other costs of finance paid	(6)	(11)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	23	43
1.8	Other (provide details if material)	(19)	(42)
1.9	Net cash from / (used in) operating activities	(812)	(1,760)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(14)	(25)

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Con flow	solidated statement of cash s	Current quarter \$A'000	Year to date (6 months) \$A'000
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	(17)	(17)
2.6	Net cash from / (used in) investing activities	(31)	(42)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	_	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material) - reduction in lease liability - Cash received from third parties	(23)	- (47) -
3.1 0	Net cash from / (used in) financing activities	(23)	(47)

Consolidated statement of cash	Current	Year to date
flows	quarter	(6 months)
	\$A'000	\$A'000

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,181	3,160
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(812)	(1,760)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(31)	(42)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(23)	(47)
4.5	Effect of movement in exchange rates on cash held	8	12
4.6	Cash and cash equivalents at end of period	1,323	1,323

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,323	2,181
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,323	2,181

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	145
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

Amounts included in 6.1 relate to payment of executive Director salaries and consulting fees.

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	_	-
7.5	Unused financing facilities available	at quarter end	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
		-	

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(812)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,323
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	1,323
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	1.6

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

- 8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:
  - 8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Yes.

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: Yes. The entity has taken steps to secure further cash to fund its operations which include the following,

- 1. Applied for and received a \$166,000 UK R&D tax rebate (refer ASX announcement 22/01/2025)
- 2. Applied for and received a \$404,300 Australian R&D tax rebate (refer to ASX announcement 30/01/2025)
- 3. Receipts already received post the period from sales of circa \$50,000 and additional grant funds of approximately \$17,000

Based on the above the entity believes it has been successful in securing sufficient additional funding to allow for over 2 quarters funding of operations.

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. With the received research and development tax rebates, the existing cash resources the Company will be able to meet its business objectives.

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

## **Compliance statement**

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2025

Authorised by: With authority of the board, this announcement has been authorised for release, by;

Michael Bell Chief Executive Officer and Managing Director

#### Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this

has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.