Tomorrow's materials,
available today

Results for the year ended 31 March 2018

About us

- Founded 2011
- Now ~100 employees in UK
- Revenue producing
- Admitted to AIM Market of London Stock Exchange 2013
- Work with leading UK universities to identify and commercialise technology bases at UOM, Cambridge and Ulster
- Acquire companies to utilise developed technology giving us a unique position in the market
- Primed for international expansion
- Completed or active in c.20 Innovate projects

Group Structure

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Hong Kong

Versarien

USA

Versarien PLC

Versarien ADVANCED COMPOSITES

aac cyroma

CAMBRIDGE GRAPHENE

Versarien TECHNOLOGIES

TOTALCARBIDE

2-DTECH

Financial Highlights

- Group revenues increased by 52% to £9.02 million (2017: £5.93 million)
- *LBITDA decreased by 33% to £0.8 million (2017: £1.2 million)
- Loss before tax decreased by 27% £1.6 million (2017: £2.2 million)
- Cash at 31 March 2018 of £2.3 million (2017: £1.4 million)
- Net assets increased by 23% to £8.0 million (2017: £6.5 million)
- Successful fundraising of £2.9 million gross in November 2017

*LBITDA (Loss before interest, tax, depreciation and amortisation) excludes exceptional items and share based payment charges)

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Operational Highlights

- Eight graphene application collaboration agreements secured during the year, with a further five entered into post period, with more in the pipeline
- Asian graphene expansion targeted through incorporation of intermediate Hong Kong holding company
- Continued investment in graphene manufacturing capability to support collaborative application agreements and increase maximum capacity to almost 3 tonnes
- Graphene investment in China on-going as a result of increased interest with 24 potential partners now identified. Joint ventures will be determined by funding levels and IP protection
- US expansion targeted through a local sales office in Palo Alto and appointment as inaugural Council Member of the US National Graphene Association
- UK Government support provided through the secondment of its Head of Outward Direct Investment
- Hexotene ™ and Graphinks ™ launched to further strengthen the Group's range of commercially available 2d materials
- Mature businesses showing much improved financial performance

Why Versarien?

- Only company with links to University of Manchester and University of Cambridge
- Close links with UK Government including being with Prime-minister in China

Two scalable and patented manufacturing processes

- Nanene - high quality few-layer graphene nano-platelets with low defect ratio and large lateral dimensions - Mechanical Chemical Exfoliation
- Graphene inks - Micro-fluidisation

Also available

- Few Layer Boron Nitride
- Graphene oxide
- Reduced graphene oxide
- High quality CVD

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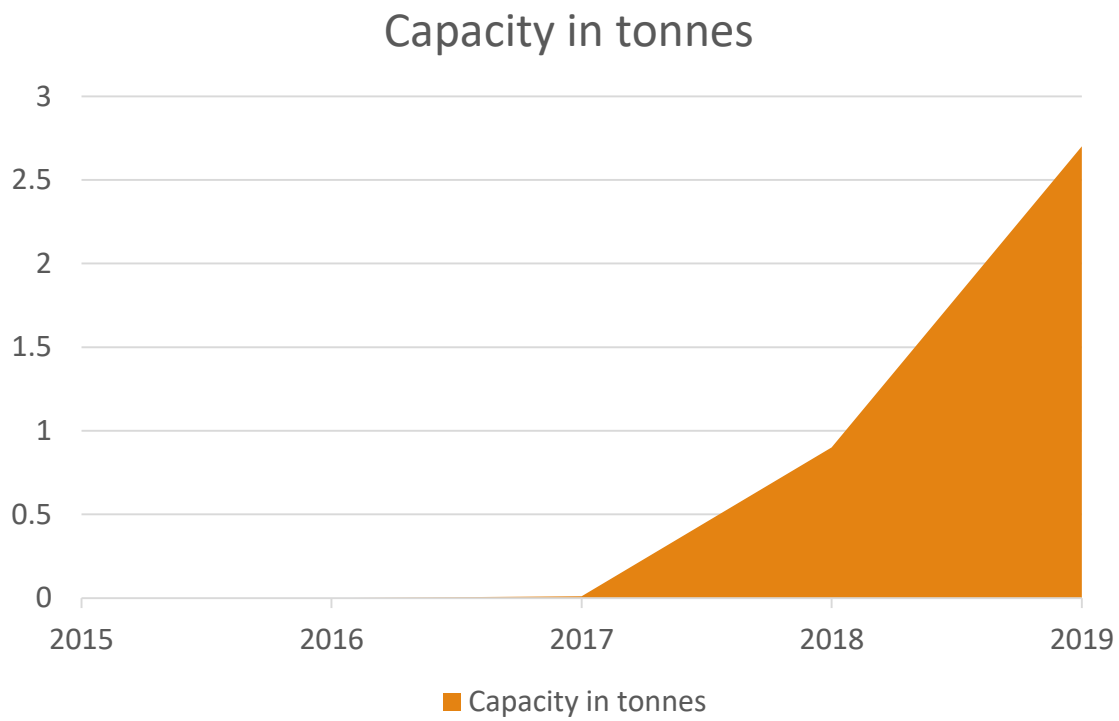
Production Capacity



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What about the quality?

- Linked with National Physical Laboratory
- Linked with National Graphene Institute and a supplier Linked with Cambridge University and a supplier Linked with ISO TC229
- BSI standard written by a Versarien consultant
- Inaugural member of the National Graphene Association Technical advisory panel in USA
- Member of the USA Graphene Council
- Links with almost all the great UK Universities
- Desire to develop a Versarien Centre of Excellence for 2d Materials
- We are doing everything we can to establish we are the premier manufacturer of 2d Materials

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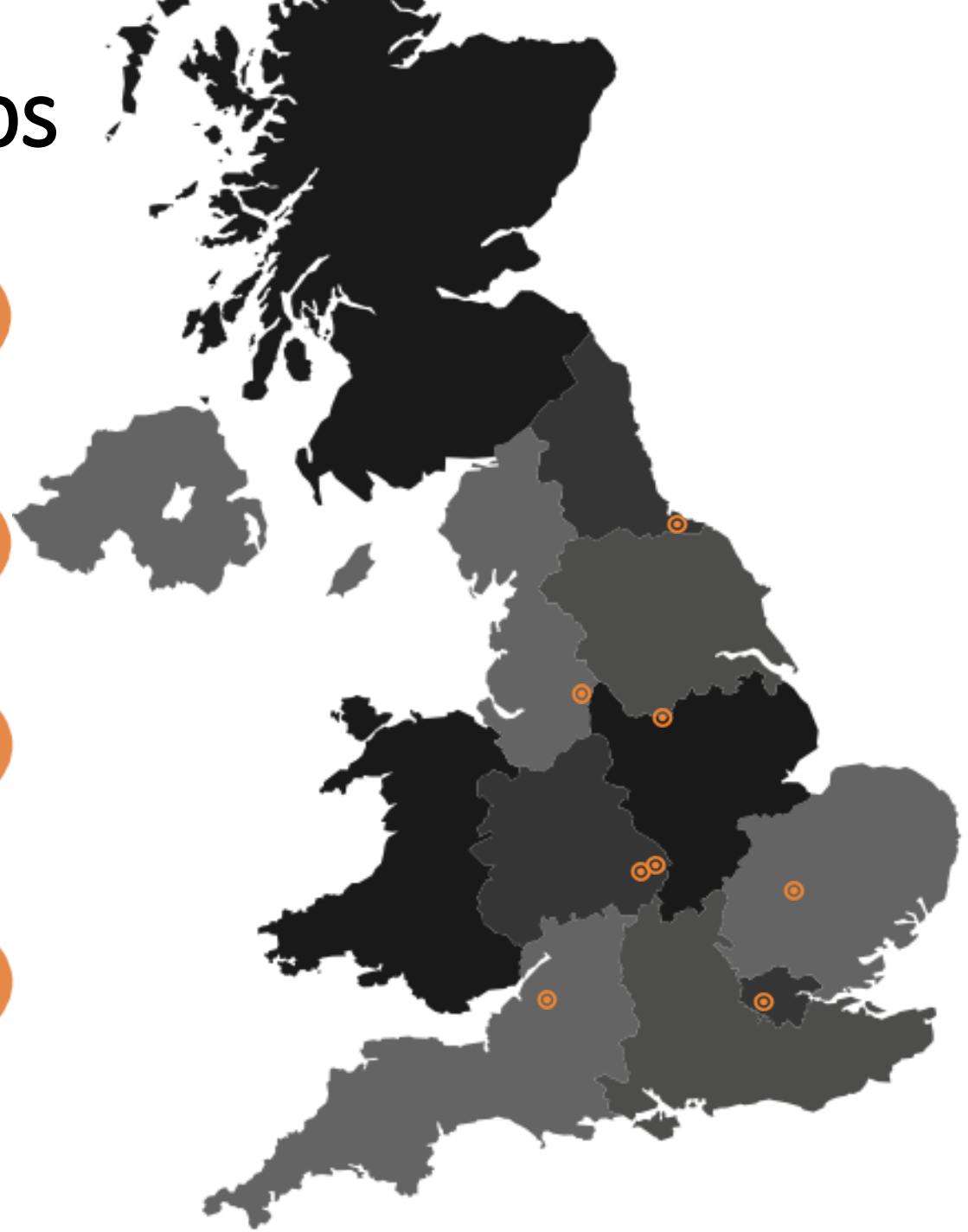
Partnerships



Graphene Engineering Innovation Centre

National Graphene Institute

Warwick Manufacturing Group

National Composite Centre

Centre for Process Innovation

Advanced manufacturing Research Centre

The Man Technology Centre

Cambridge Graphene Centre

National Physical Laboratory

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International Expansion

- The appointment of Matt Walker, the Head of Outward Direct Investment at the UK Government's Department for International Trade in May 2018 is a significant step for our international development.
- Our focus is to continuing to win further collaborations and orders, increasing production for those wishing to use and evaluate the benefits of using our products, both in the UK and globally, and in particular with partners in China.
- We entered into a letter of intent earlier in the year with Jinan, the capital of Shangdong Province and have been in discussions since, this has resulted in possible links with another 23 cities or companies in China
- Neill Ricketts, the Company's CEO, has been appointed to the advisory board of the United States National Graphene Association, which is currently the main organization and body in the US advocating and promoting the commercialisation of graphene.
    - The NGA serves as the nexus to bring together current and future graphene stakeholders to expedite and facilitate the commercialisation of graphene products and technologies in the United States and globally.
- We are confident that we will successfully progress our overseas investment ambitions.

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Opportunities in China

Region	Interest Expressed	Proposals	JV	Research
Shangdong	9	7	5	2
Jiangsu	3	1	1	0
Yunan	4	2	1	1
Hubei	1	1	1	0
Zheijang	1	1	1	0
Beijing	1	1	1	0
Guangdong	2	2	2	0
Hunan	1	1	1	0
Heilongjiang	1	0	0	0
State	1	1	0	1
Total	24	17	13	4

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Collaborations

Date	Description	Current status
October 17	Collaboration with Israel Aerospace Industries	Test panels have been produced and tested with additional surfactants now being added.
November 17	Collaboration with Global Consumer Goods Company	Plastic bottles have been produced using graphene enhanced polymers which are currently undergoing physical testing. Blown film trials are being conducted with results expected in the next two months.
December 17	Agreement with Global Chemical Major	Blown film trials have been conducted. Performance results and film material has been analysed. A second round of trials are underway with results expected in the next two months.
January 18	Agreement with Global Apparel Manufacturer	Fabric samples enhanced with graphene have been delivered which show a significant improvement in thermal conductivity of the fabric. Larger scale trials are underway which will include the required production process.
February 18	Medical Technology collaboration at Addenbrooke's hospital	Electronics and printing for a medical bandage have developed to produce demonstration devices. The electronics will be available for other medical, sports or clothing related applications.
February 18	Agreement with the shoemaker Vivobarefoot	Initial testing concluded and further testing now being carried out with various graphene loadings. Results expected shortly.
March 18	Collaboration with Team Sky for cycling equipment	Applications and potential benefits have been reviewed and specific applications are being developed.
March 18	Collaboration with world leading aerospace group	Applications of graphene into a propeller have been reviewed and a schedule of initial works with a total value of £0.2 million has been defined.
April 18	Agreement with Luxus	Graphene enhanced polymers and recycled polymers being are evaluated for customer projects. Initial results are expected shortly.
May 18	Consumer goods collaboration for polymer structures in plastics	Polymers compounded with graphene have been shipped to customer with test results expected shortly.
June 18	Agreement with Arrow Green Tech	Samples have been shipped to the customer who has conducted tests.
June 18	Commercial agreement with MediaDevil	Earphones have been tested, demonstrating significant benefits. The product is now ready for production. Prototype phone accessories are being produced at AAC Cyroma and production units under development.
July 18	Collaboration with ZapGo Ltd	Development of supercapacitors by the addition of Nanene to improve electrical conductivity of supercapacitor cells.

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Case Study - Media Devil

- New range of headphones to be launched Q3
- Tested and proven to work
- Premium Product as a demonstrator for other users
- Range of new products to be sold via Amazon
- Plans to test with Bowers and Wilkins

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Case Study – Team Sky

- Working with Team Sky, the most successful Tour de France team in recent times, to bring the benefits of graphene enhanced materials to professional cycling
- Products may include cycle frames, wheels and tyres, rider helmets and other rider apparel
- Applications and potential benefits have now been reviewed
- Specific applications are being developed

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The Future

- Smart materials and textiles
- Stronger and lighter materials
- Superior batteries and supercapacitors
- Flexible electronics
- Faster electrical components
- Superior radio frequency antennas
- Optoelectronics including lasers

Strength - Thermal - Electronics

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Summary

- The current financial year has started positively
- 5 five significant collaborations since the year end, including an agreement with MediaDevil to launch a new range of earphones and audio equipment which will utilise our Nanene brand
- Our international expansion plans are in motion and we look to grow our international market, especially China
- We have received initial purchase orders for Nanene
- We anticipate to continue the trend of new collaboration agreements
- We look forward with real optimism and confidence to the year ahead

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Thank You

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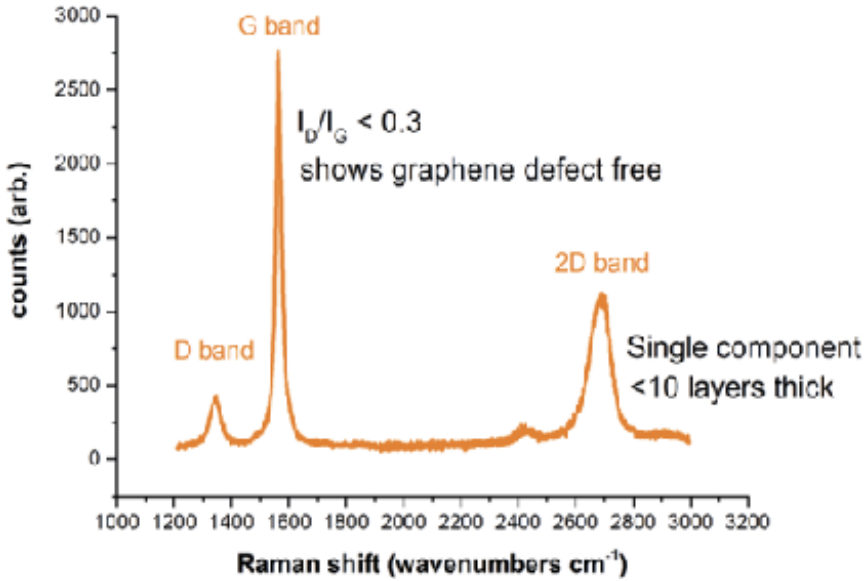
Nanene Technical Data

Partnered to National Graphene Institute

	Value	Method
Layers ≤5	60%	Raman Spectroscopy
Layers ≤10	90%	Raman Spectroscopy
Layers >10	10%	Raman Spectroscopy
Defect ratio	0.3Av. ID:IG	Raman Spectroscopy
Lateral diameter - average	2 µm	SEM, Laser Diffraction
Lateral diameter - range	0.5-10 µm	SEM, Laser Diffraction
Bulk density	185.7 kg/m3	Tapped
Surface area	45 m2/g	BET
Carbon	98.3%	XPS
Nitrogen	0.3%	XPS
Oxygen	1.3%	XPS
Other	0.1%	XPS



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2-DTECH

Graphene Inks Technical Data

Partnered to Cambridge Graphene Centre

	CG ink 1	CG ink 2
Viscosity (@ 100 s-1)	3-4 cP	~600 cP
Total solids content	~0.1 wt%	10.3 wt%
Flake type	Few-layer graphene	Graphene plus graphite nanoplatelets
Lateral size	80-500 nm	1000 ± 500 nm
Graphene flake thickness	<3 nm	~ 10± 5 nm
Deposition method	Ink Jet Printing, Vacuum Filtration, Meyer Bar Coating	Flexo/Gravure/Screen Printing. Blade /Meyer Bar Coating
Sheet resistance @ thickness	~4 kΩ/□ @ 80nm 30 Ω/□ @ 2µm	~10 Ω/□ @ 25µm

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CAMBRIDGE GRAPHENE

Carbon Fibre Reinforced Polymer

Partnered to Cambridge Graphene Centre

Epoxy resin only*

- 60% improvement in tensile modulus
- 36% improvement in the ultimate tensile strength
- 126% improvement in loss modulus
- 63% improvement in storage modulus
- No change in the glass transition temperature

Unidirectional carbon fibre composite - transverse testing*

- 55% improvement in tensile modulus
- 23% improvement in the ultimate tensile strength
- 86% improvement in loss modulus
- 60% improvement in storage modulus
- 16% improvement in the interlaminar shear strength

Unidirectional carbon fibre composite - longitudinal testing*

- 28% improvement in tensile modulus
- 38% improvement in storage modulus

Woven fabric carbon fibre composite*

- 52% increase n interlaminar shear strength

Nanene™ Versarien

*Independent testing performed by the University of Manchester

Material tested:

- Versarien manufactured Nanene at 3wt% loading
- Araldite 556 resin
- Araldite DY917 hardener
- Araldite 070 accelerator
- T700 carbon fibres

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PEEK

PEEK material with 3wt% Nanene loading*

- 26% increase in ultimate tensile strength
- 17% increase in elongation at break
- 21% increase in tensile modulus
- No change in the crystallisation temperature

*Independently testing performed by Victrex and the University of Manchester

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Group Statement of Comprehensive Income

For the year ended 31 March 2018

	2018 £'000	2017 £'000
Continuing operations		
Revenue	**9,024**	5,928
Cost of sales	**(6,496)**	(4,531)
Gross profit	**2,528**	1,397
Other operating income	**63**	180
Operating expenses (including exceptional items)	**(4,102)**	(3,769)
Loss from operations before exceptional items	**(1,477)**	(1,929)
Exceptional items	**(34)**	(263)
Loss from operations	**(1,511)**	(2,192)
Finance costs	**(50)**	(11)
Finance income	**-**	1
Loss before income tax	**(1,561)**	(2,202)
Income tax	**63**	-
Loss for the year	**(1,498)**	(2,202)
Loss attributable to:		
- Owners of the parent company	**(1,381)**	(2,132)
- Non-controlling interest	**(117)**	(70)
	(1,498)	(2,202)
Loss per share attributable to the equity holders of the Company:		
Basic and diluted loss per share	**(1.00)p**	(1.85)p

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Group Statement of Financial Position

as at 31 March 2018

	2018 £'000	2017 £'000
Assets		
Non-current assets		
Intangible assets	**2,678**	2,923
Property, plant and equipment	**2,980**	3,106
Deferred taxation	**25**	25
	5,683	6,054
Current assets		
Inventory	**1,961**	1,888
Trade and other receivables	**2,437**	1,906
Current tax	**77**	39
Cash and cash equivalents	**2,296**	1,367
	6,771	5,200
Total assets	**12,454**	11,254
Equity		
Called up share capital	**1,486**	1,313
Share premium account	**12,529**	9,762
Merger reserve	**1,256**	1,256
Share-based payment reserve	**187**	115
Retained losses	**(7,225)**	(5,844)
Equity attributable to owners of the parent company	**8,233**	6,602
Non-controlling interest	**(254)**	(137)
Total equity	**7,979**	6,465
Liabilities		
Non-current liabilities		
Trade and other payables	**167**	271
Provisions	**-**	80
Deferred tax	**64**	64
Long-term borrowings	**456**	657
	687	1,072
Current liabilities		
Trade and other payables	**1,849**	2,363
Provisions	**80**	-
Current tax	**284**	363
Invoice discounting advances	**1,117**	735
Current portion of long-term borrowings	**458**	256
	3,788	3,717
Total liabilities	**4,475**	4,789
Total equity and liabilities	**12,454**	11,254

Statement of Group cash flows

For the year ended 31 March 2018

	2018 £'000	2017 £'000
Cash flows from operating activities		
Cash used in operations	**(1,907)**	(1,250)
Interest paid	**(50)**	(10)
Corporation Tax paid	**(9)**	-
Net cash used in operating activities	**(1,966)**	(1,260)
Cash flows from investing activities		
Acquisition of subsidiaries (net of cash acquired)	**-**	(1,324)
Purchase of intangible assets	**(148)**	(52)
Purchase of property, plant and equipment	**(280)**	(977)
Net cash used in investing activities	**(428)**	(2,353)
Cash flows from financing activities		
Share issue	**3,069**	2,560
Share issue costs	**(129)**	(67)
Finance leases (net of repayments)	**1**	776
Invoice discounting loan proceeds	**382**	63
Net cash generated from financing activities	**3,323**	3,332
Increase/(decrease) in cash and cash equivalents	**929**	(281)
Cash and cash equivalents at beginning of year	**1,367**	1,648
Cash and cash equivalents at end of year	**2,296**	1,367