



19 January 2023

Ilika plc
(‘Ilika,’ the ‘Company,’ or the ‘Group’)

Half-year Report

Significant advancements for Stereax & Goliath, positioning the Group for commercialisation

Ilika (AIM: IKA), a pioneer in solid-state battery technology, announces its unaudited half-year report for the six months ended 31 October 2022.

Operating Highlights:

Ilika has continued to develop and commercialise its thin-film Stereax[®] miniature solid-state batteries (SSBs) for powering medical devices and industrial wireless sensors in specialist environments, as well as progressing its development of large-format Goliath cells for electric vehicles (EV) and cordless appliances.

Stereax

- Programme launch of product qualification and process optimisation to increase process yield in preparation for initiating commercial release in Q2 calendar year 2023
- Commercial demand remains strongest from the miniature medical device sector
- Secured 21 initial orders from 18 customers of which 11 are for implanted medical devices, 3 for smart dental applications, 2 for smart lenses, 1 for aerospace and 4 others

Goliath

- Improved the performance of the large format SSBs for electric vehicles and cordless consumer appliances
- Energy density of prototype cells have increased by c.80% since the start of the financial year
- Launched a series of scale-up studies including:
 - Completing a manufacturing equipment design study with COMAU
 - An economic feasibility study with the UK Battery Industrialisation Centre (UK-BIC)
 - Securing grant funding for the commencement of manufacturing equipment trials
- Continued to interact with a portfolio of automotive and consumer appliance OEMs globally, demonstrating strong interest for the product
- Progressing discussions for both grant-supported and commercial projects

Financial Summary:

- Total revenue for the period £0.2m (H1 2022: £0.2m)
- EBITDA loss £4.1m (H1 2022: £2.7m)
 - The EBITDA loss for the period, excluding share-based payments, increased due to the increase in operational costs associated with the Stereax manufacturing facility and the Goliath development programme
- Cash balance at period end £18.6m (H1 2022: £27.7m)
- Grant funding of £0.2m (H1 2022: £0.2m)
 - In respect of three grant applications during this period.

Post Period End:

- Signed a memorandum of understanding (MOU) with Cirtec Medical LLC (Cirtec) to transfer Stereax manufacturing under license to Cirtec’s facility in the US
- Appointment of new Chief Financial Officer, Jason Stewart

Commenting on the results Graeme Purdy, CEO of Ilika, said: *"The first half of this year has seen our technical teams make significant progress in developing both Stereax and Goliath product lines. Our recent MOU with Cirtec is an important milestone on the journey to implementing our chosen IP licensing model. The Goliath programme has reached the half-way point in matching lithium-ion equivalence and we are engaging with*

partners to assist with product specification and scale-up. Our Goliath partnering activities will provide a platform from which we aim to secure both grant funding and commercial revenue.”

Ilika plc

+44 (0)23 8011 1400

Graeme Purdy, Chief Executive
Jason Stewart, Chief Financial Officer

Liberum Capital Limited

+44 (0) 20 3100 2000

Andrew Godber, William Hall, Nikhil Varghese

Joh. Berenberg, Gossler & Co. KG (Joint Broker)

+44 (0) 20 3207 8700

Matt Armitt, Mark Whitmore, Detlir Elezi,
Mara Grasso

Walbrook PR Ltd

+44 (0)20 7933 8780 or ilika@walbrookpr.com

Lianne Applegarth

Mob: +44 (0)7584 391 303

Nick Rome

Mob: +44 (0)7748 325 236

Joe Walker

Mob: +44 (0)740 702 0470

About Ilika plc

Ilika specializes in the development of solid-state batteries. Its Stereax product line is designed for miniature medical implants and specialist internet of Things (IoT) applications. Stereax enables disruptive product designers looking for an intrinsically safe, long life (1000s recharges), low leakage (nA) and miniature power source in a rectangular form factor similar to ICs. For more information about Ilika, please visit: <https://www.ilika.com>.

Joint Chairman's and CEO's Statement

Review of Period

Principal Activities

Ilika has continued to pursue its strategy of developing and commercialising its cutting-edge solid-state batteries (SSBs). The Company's mission is to rapidly develop leading-edge IP, manufacture and sell SSBs for markets that cannot be addressed with conventional batteries due to their safety, charge rates, energy density and life limits. We will achieve this using ceramic-based lithium-ion technology that is inherently safe in manufacture and usage and easier to recycle, which differentiates our products from existing batteries.

Ilika has two product lines: miniature Stereax® SSBs for powering medical devices and industrial wireless sensors in specialist environments, and large format Goliath SSBs for electric vehicles (EV) and cordless appliances.

Stereax SSBs

Ilika's miniature Stereax cells are differentiated from other solid-state technology through its choice of materials and its use of an efficient, low temperature evaporation process that is capable of higher manufacturing rates than other existing miniature solid-state routes. This results in the following benefits relative to previous solid-state battery designs:

- Lower cost of manufacture, avoiding the use of expensive sputtering targets
- Can be charged and discharged more times through use of a silicon anode
- Less packaging required
- High temperature resilience

The unique benefits of Stereax batteries make them particularly useful for medical implants and industrial applications. Miniature Stereax batteries can enable medical devices in a way that is currently not possible with conventional lithium-ion batteries. Their compact, high energy-density, high power characteristics make them useful for a range of medical implant applications covering blood pressure monitoring to neurostimulation. Industrial automation, or Industrial Internet of Things (IIoT) as it is sometimes referred to, requires low maintenance batteries with a long lifetime, sometimes in situations that require them to operate at elevated temperatures above those for which standard lithium-ion batteries are rated (typically 60 degC).

Stereax Manufacturing Scale-up and Commercialisation

Ilika successfully commissioned its UK Stereax factory, or fab, at the end of calendar year 2021. The first product to be released to customers will be the M300. As mentioned in Ilika's trading update of 17 November 2022, initial release of this product is expected to commence in Q2 calendar year 2023. In the medical device sector, commercial ramp up usually takes five years, in line with regulatory approval timelines. Demand from applications such as smart orthopaedics, neurostimulation and smart contact lenses has created opportunities for technology transfer and licensing. Over the past year, Ilika has experienced significant inflation in energy and consumable costs relative to its budget expectations, but also relative to other countries such as the USA. This makes IIoT markets difficult to address from our UK facility and by the same token it is making an early technology transfer to a larger manufacturing partner overseas more attractive.

Ilika has intensified its partnering discussions, in particular with Cirtec Medical LLC, with whom Ilika has recently entered into an MOU to transfer production under license to Cirtec's Lowell, Massachusetts, US facility. Ilika will focus on advanced technology development and IP licensing in support of Cirtec's manufacturing and commercialisation activities.

Large Format Goliath SSBs

Ilika's Goliath cells are differentiated from other solid-state prototype cells through Ilika's choice of materials, cell architecture and manufacturing process. The key materials choices to be made by SSB developers relate to the selection of cathode, electrolyte and anodes. Different developers have selected differentiated combinations of these materials to achieve an outcome suitable for their target markets. Ilika has chosen materials that have the potential to enable longer range vehicles with battery packs that last longer and can be recycled more easily.

Ilika's initial target market for Goliath in automotive is the luxury performance market, which is less cost-sensitive than higher volume segments and is willing to pay a premium for the enhanced vehicle range. In order to address that market, Ilika is driving forward its Goliath development programme, in which it has improved the energy density of its prototype cells by c.80% since the start of the financial year. Ilika is now halfway to its target of matching lithium-ion energy density by the end of calendar year 2023, which is an important milestone on the way to the initial release of prototype cells to automotive partners for evaluation in 2024.

Ilika is currently implementing a plan to increase the capacity of its existing pre-pilot production facility using automation and larger scale items of equipment, such as a roll-to-roll coater. Ilika has increased the target capacity of this equipment from 0.5 to 1.5 MWh/a to allow it to scale production volumes and mature its technology to the level required to respond to automotive requests for quotation (RFQ) by the end of 2025. Ilika's experience working with automotive partners in the first half of this year has shown that the industry expects suppliers to have reached what it defines as A-Sample readiness to respond to RFQs. Beyond 1.5 MWh/a, at B- and C-Sample readiness and volumes, Ilika intends to work with manufacturing partners such as the UK Battery Industrialisation Centre (UK-BIC) to scale to higher levels of production capacity on production-intent equipment i.e., equipment that could be used for mass production.

Ilika has financed its Goliath technology development programme with grant funding from the Faraday Battery Challenge and equity funding. In addition, Ilika has received grants to support market strategy analysis and scale-up studies managed by the Advanced Propulsion Centre (APC). The APC-supported SOLSTICE project between Ilika and Comau, part of Stellantis and a world leader in the industrial automation field, concluded that there were no cost or technical barriers to scaling-up Ilika's Goliath solid-state battery technology for electric vehicles and delivered a plant design for a mega-scale manufacturing facility. The recently completed BUS100 project was a collaboration between Ilika and UK-BIC which analysed the economic feasibility of placing a 100MWh SSB line at UK-BIC to enable Ilika's Goliath electric vehicle batteries to be manufactured at scale. The findings of that study were that the UK-BIC's electrode coating lines could be used for Goliath, which would significantly reduce future capital requirements for Ilika as it scales-up. Ilika continues to work with equipment suppliers in the STEP project to de-risk the move to pilot line production levels.

Furthermore, Ilika continues to interact with a portfolio of automotive and consumer appliance OEMs globally, with a view to intensifying interactions through both grant-supported and commercially-funded collaborations as the Goliath technology matures.

Board appointment

Post period end, the Company appointed Jason Stewart as Chief Financial Officer, effective as of 3 January 2023. Jason has a significant commercial experience in the manufacturing sector and was most recently interim CFO at Sunseeker International Ltd where he successfully managed the company through the COVID-19 crisis, managing costs and re-establishing production following the lockdown.

Outlook

Ilika will continue to deploy its resources to maximise shareholder return while it delivers its programmes. Regarding Stereax, Ilika will broaden and deepen its relationship with Cirtec, following up on the recently-signed MOU with an expected fully-developed contractual relationship. Goliath is well-aligned with the electrification transformation of the transport sector and Ilika expects that both government grant support and commercial interest will intensify as the product matures. Ilika will continue to monitor competitor developments to ensure Goliath remains a differentiated and compelling proposition.

Graeme Purdy, CEO

Keith Jackson, Chairman

Ilika plc

Consolidated statement of comprehensive income for the six months ended 31 October 2022

	Notes	Unaudited Six months ended 31 Oct 2022 £	Unaudited Six months ended 31 Oct 2021 £	Audited Year ended 30 Apr 2022 £
Turnover		203,723	195,418	496,103
Revenue		-	15,932	30,878
UK grants		203,723	179,486	465,225
Cost of sales		(120,464)	(125,257)	(218,794)
Gross profit		83,259	70,161	277,309
Administrative expenses		(4,940,257)	(3,301,949)	(7,966,807)
Share-based payment charge		(212,708)	(248,504)	(429,686)
		(5,152,965)	(3,550,453)	(8,396,493)
Operating loss		(5,069,706)	(3,480,292)	(8,119,184)
Financial income		6,262	2,867	5,590
Other Income		44,233	-	-
Financial expense		(18,299)	(14,675)	(31,299)
Loss before tax		(5,037,510)	(3,492,100)	(8,144,893)
Taxation		958,210	225,000	1,016,331
Loss for period/total comprehensive income attributable to owners of parent		(4,079,300)	(3,267,100)	(7,128,562)
Loss per share				
Basic and diluted	2	(0.03)	(0.02)	(0.05)

The results from the periods shown above are derived entirely from continuing operations.

Consolidated balance sheet as at 31 October 2022

	Unaudited Six months ended 31 Oct 2022	Unaudited Six months ended 31 Oct 2021	Audited Year ended 30 Apr 2022
Notes	£	£	£
ASSETS			
Non-current assets			
Intangible assets	2,426,896	1,737,318	1,958,153
Property, plant and equipment	4,831,583	4,843,932	5,072,280
Right-of-use assets	761,126	785,765	891,254
Total non-current assets	8,019,605	7,367,015	7,921,687
Current assets			
Trade and other receivables	1,661,395	2,053,304	1,594,326
Current tax receivable	2,019,264	555,000	1,016,822
Other financial assets – bank deposits	772,675	770,902	772,675
Cash and cash equivalents	17,837,980	26,933,312	22,626,280
Total current assets	22,291,314	30,312,518	26,010,103
Total assets	30,310,919	37,679,534	33,931,790
Issued capital and reserves attributable to owners of parent			
Issued share capital	1,584,720	1,574,679	1,582,342
Share premium	64,806,916	64,698,829	64,754,910
Capital restructuring reserve	6,486,077	6,486,077	6,486,077
Retained earnings	(45,253,488)	(37,706,618)	(41,386,898)
Total equity	27,624,225	35,052,967	31,436,431
LIABILITIES			
Current liabilities			
Trade and other payables	1,705,254	1,759,570	1,407,398
Lease liabilities	281,525	195,524	223,644
Total current liabilities	1,986,779	1,955,094	1,631,042
Non-current liabilities			
Lease liabilities	459,550	531,108	623,952
Provisions	240,365	140,365	240,365
Total non-current liabilities	699,915	671,473	864,317
Total liabilities	2,686,694	2,626,567	2,495,359
Total equity and liabilities	30,310,919	37,679,534	33,931,790

Consolidated cash flow statement for the six months ended 31 October 2022

	Unaudited Six months ended 31 Oct 2022 £	Unaudited Six months ended 31 Oct 2021 £	Audited Year ended 30 Apr 2022 £
Cash flows from operating activities			
Loss before taxation	(5,037,510)	(3,492,100)	(8,144,896)
<i>Adjustments for:</i>			
Amortisation	21,717	47,116	47,512
Depreciation	767,567	486,299	1,253,038
Equity settled share-based payments	212,708	248,504	429,686
Loss on disposal of plant, property and equipment	(750)	-	(2,000)
Net financial expense/ (income)	(32,195)	11,808	25,709
Operating cash flow before changes in working capital, interest and taxes	(4,068,463)	(2,698,372)	(6,390,948)
Decrease/(increase) in trade and other receivables	(67,069)	120,293	279,221
Increase /(decrease) in trade and other payables	297,856	386,360	34,188
Decrease in provisions	-	-	100,000
Cash utilised by operations	(3,837,676)	(2,191,719)	(5,977,539)
Tax received	-	-	329,509
Net cash flow from operating activities	(3,837,676)	(2,191,719)	(5,648,030)
Cash flows from investing activities			
Interest received	6,262	2,867	5,590
Purchase of intangible assets	(490,460)	(721,375)	(942,606)
Purchase of property, plant and equipment	(396,742)	(2,920,392)	(3,491,671)
Sale of Property, Plant and equipment	750	-	2,000
Increase in other financial assets	0	(1,822)	(3,595)
Net cash used in investing activities	(880,190)	(3,640,722)	(4,430,282)
Cash flows from financing activities			
Proceeds from issuance of ordinary share capital	54,386	24,769,724	24,833,468
Cost of share issue	-	(885,414)	(885,414)
Capital element of finance leases repaid	(106,521)	(115,763)	(209,371)
Lease Payments interest	(18,299)	-	(31,299)
Net cash from financing activities	(70,434)	23,768,547	23,707,384
Net (decrease)/ increase in cash and cash equivalents	(4,788,300)	17,936,105	13,629,072
Cash and cash equivalents at the start of the period	22,626,280	8,997,208	8,997,208
Cash and cash equivalents at the end of the period	17,837,980	26,933,313	22,626,280

Consolidated statement of changes in equity (unaudited)

	Share capital £	Share premium account £	Capital restructuring reserve £	Retained earnings £	Total £
As at 30th April 2021	1,396,265	40,992,933	6,486,077	(34,688,022)	14,187,253
Share-based payment			-	248,504	248,504
Issue of Shares	178,414	24,591,311			24,769,724
Cost of share Issue		(885,414)			(885,414)
Loss and total comprehensive income	-	-	-	(3,267,100)	(3,267,100)
As at 31 October 2021	1,574,679	64,698,829	6,486,077	(37,706,618)	35,052,967
Share-based payment	-	-	-	181,182	181,182
Issue of shares	7,663	56,081	-	-	63,744
Loss and total comprehensive income	-	-	-	(3,861,462)	(3,861,462)
As at 30th April 2022	1,582,342	64,754,910	6,486,077	(41,386,898)	31,436,431
Share-based payment	-	-	-	212,708	212,708
Issue of shares	2,378	52,008	-	-	54,386
Loss and total comprehensive income	-	-	-	(4,079,300)	(4,079,300)
	1,584,720	64,806,918	6,486,077	(45,253,490)	27,624,225

Share capital

The share capital represents the nominal value of the equity shares in issue.

Share premium account

When shares are issued, any premium paid above the nominal value is credited to the share premium reserve.

Retained earnings

The retained earnings reserve records the accumulated profits and losses of the Group since inception of the business.

Capital restructuring reserve

The capital restructuring reserve arises on the accounting for the share for share exchange. It represents the difference between the value of the issued equity instruments of Ilika Technologies Limited immediately before the share for share exchange and the equity instruments of Ilika plc along with the shares issued to effect the share for share exchange.

Notes to the consolidated financial statements

1. Accounting policies

Basis of preparation

The interim financial statements, which are unaudited, have been prepared on the basis of accounting policies consistent with International Financial Reporting Standards (“IFRSs”) adopted by the European Union. The accounting policies are the same as applied in the Group’s latest financial statements.

The interim financial statements do not include all of the information required for full annual financial statements and do not comply with all the disclosures in IAS 34 ‘Interim Financial Reporting’. Accordingly, whilst the interim financial statements have been prepared in accordance with IFRS they cannot be construed as being in full compliance with IFRS.

The financial information for the year ended 30 April 2022 does not constitute the full statutory accounts for that period. The Annual Report and Accounts for 30 April 2022 have been filed with the Registrar of Companies. The Independent Auditors’ Report on the Annual Report and Accounts for 2022 was unqualified and did not include references to any matters which the auditors drew attention by way of emphasis without qualifying their report and did not contain statements under Section 498(2) or 498(3) of the Companies Act 2006.

Going concern

The financial statements are prepared on a going concern basis which the directors believe continues to be appropriate. The Group meets its day to day working capital requirements through existing cash resources which, at 31 October 2022, amounted to £18.6m. The directors have prepared projected cash flow information for the period ending twelve months from the date of their approval of these financial statements. On the basis of this cash flow information the directors believe that the Group will be able to continue to trade for the foreseeable future.

2. Loss per share

Loss per ordinary share have been calculated using the weighted average number of shares in issue during the relevant financial periods. The weighted average number of equity shares in issue and the earnings, being loss after tax, are as follows:

	Unaudited Six months ended 31 Oct 2022	Unaudited Six months ended 31 Oct 2021	Audited Year ended 30 Apr 2022
	Number	Number	Number
Weighted average number of equity shares	158,309,838	148,643,793	153,175,933
	£	£	£
Loss, being loss after tax	<u>(4,079,300)</u>	<u>(3,267,100)</u>	<u>(7,128,562)</u>

The loss attributable to ordinary shareholders and weighted average number of ordinary shares for the purpose of calculating the diluted earnings per ordinary share are identical to those used for basic earnings per share. This is because the exercise of share options and warrants would have the effect of reducing the loss per ordinary share and is therefore not dilutive under the terms of IAS 33.

– Ends –