



20 January 2022

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

## Half-year Report

Ilika (AIM: IKA), a pioneer in solid-state battery technology, announces its unaudited half-year report for the six months ended 31 October 2021.

### Operating Highlights

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

- Secured lease of a 1,600m<sup>2</sup> property for Stereax manufacturing scale-up
- Completed the design, installation and commissioning of the 340 m<sup>2</sup> Stereax clean room facility
- Completed installation of Stereax manufacturing line on time and on budget
- Commenced Stereax manufacturing process qualification
- Continued to engage with portfolio of Stereax customers from IIoT and medical device sector
- Completed Goliath development collaborations with Faraday Battery Challenge partners including Honda, JLR and McLaren
- Continued technical progress with the Goliath development programme, including increased cycle count, reduced operating temperature and increased energy density
- Commenced Goliath scale up manufacturing design collaboration with Comau, funded by the Advanced Propulsion Centre
- Appointed senior additions to management team with Brenadan McCarthy as Goliath Operations Director and Robin Bell as VP Product Development.

### Financial Summary

- In July 2021, raised c.£25m through a combination of an equity placing, a retail offer and an open offer
- Total revenue for the period £0.2m (H1 2021: £1.3m)
  - *Recognition of the initial allocation of Faraday Battery Challenge grant funding was completed at the start of the period, resulting in revenue recognition for the period of £0.2m*
  - *The environment for grant funding has become tighter but we expect around £0.2m in H2*
- Loss per share 2p (H1 2021: 1p)
- EBITDA loss £2.7m (H1 2021: £1.0m)
  - *The EBITDA loss was due to the reduction in revenue recognition and the increase in operational costs associated with the commissioning of the Stereax manufacturing facility and an intensification of the Goliath development programme*
- Cash balance at period end £27.7m (H1 2021: £12.4m).
  - *Cash and cash equivalents at the period end were £27.7m following the placing, retail offer and open offer in July raising a net £23.7m*

### Post Period End

- Officially opened its Stereax Solid-State battery manufacturing facility in Chandlers Ford to manufacture micro batteries

**Commenting on the results Graeme Purdy, CEO of Ilika, said:** *"Our Stereax manufacturing facility has been implemented on time and on budget, despite significant supply chain disruption. I'd like to thank our employees, partners and shareholders for their support in making this happen. At the same time, our Goliath technical programme has made giant steps forwards particularly in operating temperature and cycle life, the equity placing completed in July 2021 will allow us to continue to progress towards manufacturing readiness."*

**Ilika plc**

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## 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. The Company's mission is to rapidly develop leading-edge IP, manufacture and sell solid-state batteries 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, which differentiates our products from existing batteries.

Throughout the year to date, including during the lockdown periods, the Company's facilities have remained open. Through the implementation of risk assessments, enhanced cleaning and hygiene procedures and social distancing, we have maintained a safe working environment.

#### ***Introduction to Stereax® solid-state battery technology***

Ilika has been working with solid-state battery technology since 2008 and has developed a type of lithium-ion battery, which, instead of using liquid or polymer electrolyte, uses a ceramic ion conductor. Ilika's solid-state batteries have a number of benefits over traditional lithium-ion batteries, including the following:

- Non-flammable, which eliminates the need for containment packaging
- 6 x faster charging
- 2x increased energy density, making them half the volume and weight for a given electrical charge
- 10x longer storage without loss of charge

Ilika has developed a roadmap and family of battery products, ranging from miniature solid-state devices designed for powering wireless sensor applications and medical devices to large format cells for automotive power.

#### ***Miniature Stereax batteries***

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 solid-state routes. This results in the following benefits relative to previous solid-state battery designs:

- Lower cost of manufacture through avoiding use of expensive sputtering targets
- Long cycle life through use of a silicon anode
- Less encapsulation 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 neuro-stimulation. 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***

In 2020, Ilika had raised funds to support the transfer of Stereax to a manufacturing facility. Having assessed various manufacturing options, the Company concluded that the most efficient and cost-effective solution was to establish its own manufacturing operation. Long lead equipment items were ordered, the lease on a suitable property was secured and a contract was awarded for the design, installation and commissioning of a clean room facility. In September 2021, Ilika announced that it had completed the installation of the clean room and principal equipment. The total area of the leased property is 1,600 m<sup>2</sup>, in which a 340m<sup>2</sup> clean

room has been installed. In December 2021, Ilika announced the official opening of the facility by the Rt Hon Steve Brine MP and Rt Hon Lord Willetts, former Minister of State for Universities and Science. The official opening was followed up by a Capital Markets Day in which investors were invited to visit the facility. In line with previous guidance, process qualification continued through to the end of December 2021 and product qualification will start in Q1 2022.

The Company has continued to engage with its portfolio of customers from the IIoT and medical device sectors. The tolerance of Stereax cells of high temperatures makes them attractive for powering industrial sensors, while the benefits of Stereax batteries for medical devices, including miniaturised footprint, biocompatibility, zero risk of leakage and a long lifespan, underpin their design for applications including neurostimulation, orthopaedics, ophthalmic sensors and monitoring of heart rhythm and blood pressure. Commercial sales are expected to start in FY 2023 following product qualification. Product sales will be ramped up to match demand from a portfolio of customer new product development (NPD) programmes, with an initial focus on miniature medical devices.

### ***Large Format Goliath batteries***

In July 2021, the Company raised £25m through a combination of an equity placing, a retail offer and an open offer. Ilika outlined that £10m will be used to accelerate the development of Goliath technology to match and exceed lithium-ion equivalence; £5m will be used to fund a tenfold increase in capacity of the Goliath pre-pilot line from 1kWh to 10kWh per week and the remainder will be used for working capital purposes and to support Goliath development until mid-2023. Beyond that, once cell manufacturing readiness is achieved in 2024, Ilika will transfer production to a mega-scale facility such as the UK-BIC, with which it has a framework agreement, before moving to Giga-scale through a JV or licensing.

The Company's initial development collaborations with its Faraday Battery Challenge partners including Honda, JLR and McLaren, have been completed. During the course of those collaborations, Ilika successfully achieved sustained technical progress, including increased cycle count, reduced operating temperature and increased energy density.

Work continues with Comau in a programme funded by the APC (Advanced Propulsion Centre) to design the Goliath mega-scale facility. Discussions are also progressing with other supply chain partners to support materials supply and cell manufacturing scale-up implementation.

### ***Outlook***

For the remainder of the current financial year, Ilika will continue to qualify the process established at its Stereax manufacturing facility and rapidly follow up with product qualification. Commercial Stereax sales are expected to commence in the next financial year. The technical maturity of Goliath is expected to continue to rise as prototype cell performance continuously improves.

**Graeme Purdy, CEO**

**Keith Jackson, Chairman**

**Ilika plc**

**Consolidated statement of comprehensive income for the six months ended 31 October 2021**

	Notes	Unaudited Six months ended 31 Oct 2021 £	Unaudited Six months ended 31 Oct 2020 £	Audited Year ended 30 Apr 2021 £
<b>Turnover</b>		195,418	1,250,249	2,255,688
Revenue		15,932	83,253	230,453
UK grants		179,486	1,166,996	2,025,235
Cost of sales		(125,257)	(705,045)	(1,271,612)
<b>Gross profit</b>		70,161	545,204	984,076
Administrative expenses				
Administrative expenses		(3,301,949)	(2,136,592)	(4,405,622)
Share-based payment charge		(248,504)	(163,787)	(419,591)
		(3,550,453)	(2,300,379)	(4,825,213)
<b>Operating loss</b>		(3,480,292)	(1,755,175)	(3,841,137)
Financial income		2,867	9,032	14,806
Financial expense		(14,675)	(4,000)	(9,694)
<b>Loss before tax</b>		(3,492,100)	(1,750,143)	(3,836,025)
Taxation		225,000	128,962	308,962
<b>Loss for period/total comprehensive income attributable to owners of parent</b>		(3,267,100)	(1,621,181)	(3,527,063)
<b>Loss per share</b>				
Basic and diluted	2	(0.02)	(0.01)	(0.03)

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

Consolidated balance sheet as at 31 October 2021

Notes	Unaudited Six months ended 31 Oct 2021 £	Unaudited Six months ended 31 Oct 2020 £	Audited Year ended 30 Apr 2021 £
<b>ASSETS</b>			
<b>Non-current assets</b>			
Intangible assets	1,737,318	467,166	1,063,059
Property, plant and equipment	4,843,932	2,043,105	2,305,183
Right-of-use assets	785,765	208,034	890,421
<b>Total non-current assets</b>	<b>7,367,015</b>	<b>2,718,305</b>	<b>4,258,663</b>
<b>Current assets</b>			
Trade and other receivables	2,053,304	1,809,990	2,173,597
Current tax receivable	555,000	428,962	330,000
Other financial assets – bank deposits	770,903	765,696	769,080
Cash and cash equivalents	26,933,312	11,661,566	8,997,208
<b>Total current assets</b>	<b>30,312,519</b>	<b>14,666,214</b>	<b>12,269,855</b>
<b>Total assets</b>	<b>37,679,534</b>	<b>17,384,519</b>	<b>16,528,548</b>
<b>Issued capital and reserves attributable to owners of parent</b>			
Issued share capital	1,574,679	1,391,857	1,396,265
Share premium	64,698,829	40,895,709	40,992,933
Capital restructuring reserve	6,486,077	6,486,077	6,486,077
Retained earnings	(37,706,618)	(33,037,944)	(34,688,022)
<b>Total equity</b>	<b>35,052,967</b>	<b>15,735,699</b>	<b>14,187,253</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Trade and other payables	1,759,570	1,316,616	1,373,210
Lease liabilities	195,524	68,875	195,524
<b>Total current liabilities</b>	<b>1,955,094</b>	<b>1,385,491</b>	<b>1,568,734</b>
<b>Non-current liabilities</b>			
Lease liabilities	531,108	122,964	632,196
Provisions	140,365	140,365	140,365
<b>Total non-current liabilities</b>	<b>671,473</b>	<b>263,329</b>	<b>772,561</b>
<b>Total liabilities</b>	<b>2,626,567</b>	<b>1,648,820</b>	<b>2,341,295</b>
<b>Total equity and liabilities</b>	<b>37,679,534</b>	<b>17,384,519</b>	<b>16,528,548</b>

## Consolidated cash flow statement for the six months ended 31 October 2021

	Unaudited Six months ended 31 Oct 2021 £	Unaudited Six months ended 31 Oct 2020 £	Audited Year ended 30 Apr 2021 £
<b>Cash flows from operating activities</b>			
Loss before taxation	(3,492,100)	(1,750,143)	(3,836,025)
<i>Adjustments for:</i>			
Amortisation	47,117	6,697	14,243
Depreciation	486,299	551,605	1,130,862
Equity settled share-based payments	248,504	163,787	419,591
Loss on disposal of plant, property and equipment	-	1,557	2,089
Net financial expense/ (income)	11,808	(5,032)	(5,112)
<b>Operating cash flow before changes in working capital, interest and taxes</b>	(2,698,372)	(1,031,529)	(2,274,352)
Decrease/(increase) in trade and other receivables	120,293	(339,326)	(293,067)
Increase /(decrease) in trade and other payables	386,360	406,315	173,777
Decrease in provisions	-	(29,304)	(29,305)
<b>Cash utilised by operations</b>	(2,191,719)	(993,844)	(2,422,947)
Tax received	-	-	278,962
<b>Net cash flow from operating activities</b>	(2,191,719)	(993,844)	(2,143,985)
<b>Cash flows from investing activities</b>			
Interest received	2,866	9,033	14,806
Purchase of intangible assets	(721,375)	(407,753)	(1,011,192)
Purchase of property, plant and equipment	(2,920,392)	(893,649)	(1,812,135)
Increase in other financial assets	(1,822)	(3,496)	(6,880)
<b>Net cash used in investing activities</b>	(3,640,723)	(1,295,865)	(2,815,401)
<b>Cash flows from financing activities</b>			
Proceeds from issuance of ordinary share capital	24,769,724	-	101,632
Cost of share issue	(885,414)	-	-
Capital element of finance leases repaid	(115,763)	(38,263)	(134,576)
<b>Net cash from financing activities</b>	23,768,547	(38,263)	(32,944)
<b>Net (decrease)/ increase in cash and cash equivalents</b>	17,936,105	(2,327,972)	(4,992,330)
<b>Cash and cash equivalents at the start of the period</b>	8,997,208	13,989,538	13,989,538
<b>Cash and cash equivalents at the end of the period</b>	26,933,313	11,661,566	8,997,208

## Consolidated statement of changes in equity (unaudited)

	Share capital £	Share premium account £	Capital restructuring reserve £	Retained earnings £	Total £
<b>As at 30th April 2020</b>	<b>1,391,857</b>	<b>40,895,709</b>	<b>6,486,077</b>	<b>(31,580,550)</b>	<b>17,193,093</b>
Share-based payment	-	-	-	163,787	163,787
Loss and total comprehensive income	-	-	-	(1,621,181)	(1,621,181)
<b>As at 31 October 2020</b>	<b>1,391,857</b>	<b>40,895,709</b>	<b>6,486,077</b>	<b>(33,037,944)</b>	<b>15,735,699</b>
Share-based payment	-	-	-	255,804	255,804
Issue of shares	4,408	97,224	-	-	101,632
Loss and total comprehensive income	-	-	-	(1,905,882)	(1,905,882)
<b>As at 30th April 2021</b>	<b>1,396,265</b>	<b>40,992,933</b>	<b>6,486,077</b>	<b>(34,688,022)</b>	<b>14,187,253</b>
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)
<b>As at 31 October 2021</b>	<b>1,574,679</b>	<b>64,678,040</b>	<b>6,486,077</b>	<b>(37,706,618)</b>	<b>35,052,967</b>

### 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 2021 does not constitute the full statutory accounts for that period. The Annual Report and Accounts for 30 April 2021 have been filed with the Registrar of Companies. The Independent Auditors’ Report on the Annual Report and Accounts for 2021 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 2021, amounted to £27.7m. 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:

	<b>Unaudited Six months ended 31 Oct 2021</b>	<b>Unaudited Six months ended 31 Oct 2020</b>	<b>Audited Year ended 30 Apr 2021</b>
	<b>Number</b>	<b>Number</b>	<b>Number</b>
Weighted average number of equity shares	148,643,793	139,185,712	139,273,884
	<b>£</b>	<b>£</b>	<b>£</b>
Loss, being loss after tax	<u>(3,267,100)</u>	<u>(1,621,181)</u>	<u>(3,527,063)</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 –