**14 January 2021**

**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 yearly report for the six months ended 31 October 2020, during which the Company has continued to make strong progress with the implementation of its Stereax commercialisation plans, and set out a clear pathway to increased production, revenue generation and cash flow break even.

**Operating Highlights**

Ilika has continued to develop and commercialise its thin-film Stereax®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.

* Continued engagement with portfolio of Stereax customers from the IIoT and medical device sectors
* Completion of an over-subscribed £15m ($20m) equity placing, providing working capital to support operations until the Company reaches cash flow break even
* Signed a framework agreement with the UK Battery Industrialisation Centre (UKBIC) for the production of Goliath solid-state pouch cells, targeting growth production 1kWh per week to 5 MWh per week by 2024
* Executed a portfolio of three collaborative projects supported by the UK Government’s Faraday Battery Challenge, supported by £5.2m grant funding enabling work on rapid charging with Honda and Ricardo, battery packs for high performance vehicles with McLaren and cost-effective routes for the mass production of Goliath cells with JaguarLandRover

**Financial Summary**

* Total revenue for the period £1.3m (H1 2019: £1.5m)
* Loss per share 1p (H1 2019: 1p loss per share)
* EBITDA loss £1.0m (H1 2019: £1.0m loss)
* Cash balance at period end £12.4m (H1 2019: £1.9m)

**Post Period end**

* Concluded its assessment of various Stereax manufacturing options, demonstrating that the most efficient and cost-effective solution will be to establish its own manufacturing operation
* Confirmed that the key Stereax production tools, which are on order, are expected to be installed during May-July 2021, with manufacturing commencing after equipment and process qualification activities in the second half of 2021
  + This will result in a 70x increase in Stereax production capacity by the end of the 2021 calendar year

**Commenting on the results Graeme Purdy, CEO of Ilika, said:** *"Despite unprecedented disruption to the Company’s supply chain and operations in the first half of this financial year, we have continued to make strong progress with the implementation of our Stereax commercialisation plans. Although demand for Stereax is outstripping our current ability to supply from the pilot line, we are continuing to engage with customers to ensure we understand how demand can be extended, and ramped up further over the coming years. It has also been exciting to contribute to the relentless improvement in performance of our Goliath large format cells and to engage with the UK Battery Industrialisation Centre to plan their scale-up.”*

|  |  |
| --- | --- |
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**Notes to editor and corporate video:**

Please click link here to view latest corporate video and overview:

[https://www.ilika.com/latest-news/ilika-investor-update-november-2020](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.ilika.com_latest-2Dnews_ilika-2Dinvestor-2Dupdate-2Dnovember-2D2020&d=DwMGaQ&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=vC3VQUoBbtUPSl-ZU0Vj2lLzJCmz_4dgiZFnKJ_geWg&m=9m5mjAdM2NOelbQPdAWkTrdUfN6A4RKKct3of8sUx0c&s=0pX8fWcffGRjT1cVzkDeKUqv6mI1esNM07yON-UOVjU&e=)

Ilika plc (LON: IKA) is a pioneer in solid-state battery technology with their innovative Stereax micro batteries designed for Industrial IoT and MedTech markets, and their Goliath large format batteries for the electric vehicle and consumer electronics markets. Stereax battery technology offers compelling advantages over conventional lithium ion batteries, including smaller footprint, high energy density, non-toxic materials, faster charging, increased cycle life, low leakage and reduced flammability. Stereax solid-state batteries are also customisable in shape and form, stackable and operational at high temperatures.

**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.

***Introduction to 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**

Ilika is currently manufacturing Stereax® batteries on a pilot line. These batteries are being continuously improved for further enhancement of their properties, and also sold for customer evaluation. Increasing commercial demand for evaluation samples from our growing portfolio of customers continues to place pressure on the utilisation of the Stereax pilot line. The ramping demand for Stereax batteries underpinned an over-subscribed £15m ($20m) equity placing, which the Company concluded in March 2020, in order to support the transfer of Stereax to a manufacturing facility, strengthen the balance sheet to meet working capital requirements and provide the option for investing in further growth in Stereax production capability, including implementing a dual source production capability in the future.

In November 2020, the Company concluded its assessment of various Stereax manufacturing options, which included manufacturing wafers of Stereax batteries at 3rd party facilities as an alternative to establishing its own manufacturing operations. Having fully compared the benefits and risks of installing the key equipment needed for Stereax production in different locations around the world, the Company demonstrated that the most efficient and cost-effective solution will be to establish its own manufacturing operation. We have identified a suitable facility within 5 miles of our headquarters and the lease is currently being finalised.

The key Stereax production tools, which are on order, are expected to be installed during May-July 2021,with manufacturing commencing after equipment and process qualification activities in the second half of 2021. This will result in a 70x increase in Stereax production capacity by the end of the 2021 calendar year.

Once the technology transfer into its manufacturing facility has been achieved, Ilika’s business model will continue to be to sell batteries, although some parts of the manufacturing workflow will be managed on an outsourced basis. A further step-up in production capacity with a larger manufacturing partner is expected to be required further into the future, when a licensing model may be more appropriate.

***Large Format Goliath batteries***

In September 2019, Ilika announced the opening of its new large format battery facility, the Goliath pilot line, in Romsey, UK to support its portfolio of industrial collaborations. On this pilot line, Ilika is developing low-cost printing processes suitable for forming batteries several orders of magnitude larger than miniature Stereax batteries.

In the first half of this year, Ilika has been executing a portfolio of three collaborative projects supported by the UK Government’s Faraday Battery Challenge. The projects are supported by £5.2m grant funding enabling work on rapid charging with Honda and Ricardo, battery packs for high performance vehicles with McLaren and cost-effective routes for the mass production of Goliath cells with JaguarLandRover. Ilika is also engaging with manufacturers of cordless appliances, e.g. vacuum cleaners and beauty products, which can also benefit from some of the unique properties of solid-state batteries.

**Goliath Manufacturing Scale-up**

The Company’s pilot line in Romsey is capable of producing 1kWh per week. Ilika has plans to scale up its current site to an automated facility producing 10 kWh per week by 2022. In September 2020, Ilika announced the signing of a framework agreement with the UK Battery Industrialisation Centre (UKBIC) for the production of Goliath solid state pouch cells. This stage of scale-up will involve Ilika reaching 5 MWh per week by 2024 to satisfy increasing customer demand. The signing of the framework agreement with UKBIC is a significant and important step towards achieving that goal. Discussions with the UK Government’s Faraday Battery Challenge are on-going regarding further grant funding to support the planned scale-up activities.

***Outlook***

Ilika has an intensive period of operational implementation ahead of it for the remainder of this financial year and into next year as it deploys the capital it raised in March 2020 to establish a manufacturing facility for Stereax. The technical maturity of Goliath is expected to continue to rise as prototype cell performance continuously improves. These activities will provide a strong platform for renewed revenue growth in the next financial year.

**Graeme Purdy, CEO**

**Keith Jackson, Chairman**

**Ilika plc**

**Consolidated statement of comprehensive income for the six months ended 31October 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Unaudited**  **Six months ended**  **31 Oct 2020** | **Unaudited**  **Six months ended**  **31 Oct 2019** | **Audited**  **Year**  **ended**  **30 Apr 2020** |
|  | **Notes** | **£** | **£** | **£** |
|  |  |  |  |  |
| **Turnover** |  | 1,250,249 | 1,460,639 | 2,840,648 |
| Revenue |  | 83,253 | 212,823 | 367,003 |
| UK grants |  | 1,166,996 | 1,247,816 | 2,473,645 |
|  |  |  |  |  |
| Cost of sales |  | (705,045) | (782,115) | (1,571,350) |
|  |  |  |  |  |
| **Gross profit** |  | 545,204 | 678,524 | 1,269,298 |
| Administrative expenses |  |  |  |  |
| Administrative expenses |  | (2,136,592) | (2,132,354) | (4,380,259) |
| Share-based payment charge |  | (163,787) | (119,348) | (233,786) |
|  |  | (2,300,379) | (2,251,702) | (4,614,045) |
|  |  |  |  |  |
| **Operating loss** |  | (1,755,175) | (1,573,178) | (3,344,747) |
|  |  |  |  |  |
| Financial income |  | 9,032 | 8,386 | 12,406 |
| Financial expense |  | (4,000) | (6,432) | (10,299) |
|  |  |  |  |  |
| **Loss before tax** |  | (1,750,143) | (1,571,224) | (3,342,640) |
| Taxation |  | 128,962 | 139,734 | 254,734 |
|  |  |  |  |  |
| **Loss for period/total comprehensive income attributable to owners of parent** |  | (1,621,181) | (1,431,490) | (3,087,906) |
|  |  |  |  |  |
| **Loss per share** |  |  |  |  |
| Basic and diluted | 2 | (0.01) | (0.01) | (0.03) |

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

**Consolidated balance sheet as at 31 October 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Unaudited**  **Six months ended**  **31 Oct 2020** | **Unaudited**  **Six months ended**  **31 Oct 2019** | **Audited**  **Year**  **ended**  **30 Apr 2020** |
|  | **Notes** | **£** | **£** | **£** |
| **ASSETS** |  |  |  |  |
| **Non-current assets** |  |  |  |  |
| Intangible assets |  | 467,166 | 21,466 | 66,110 |
| Property, plant and equipment |  | 2,043,105 | 2,186,502 | 1,670,614 |
| Right-of-use assets |  | 208,034 | - | 240,040 |
|  |  |  |  |  |
| **Total non-current assets** |  | 2,718,305 | 2,207,968 | 1,976,764 |
|  |  |  |  |  |
| **Current assets** |  |  |  |  |
| Trade and other receivables |  | 1,809,990 | 1,520,349 | 1,470,664 |
| Current tax receivable |  | 428,962 | 499,734 | 300,000 |
| Other financial assets – bank deposits |  | 765,696 | 353,831 | 762,200 |
| Cash and cash equivalents |  | 11,661,566 | 1,507,631 | 13,989,538 |
|  |  |  |  |  |
| **Total current assets** |  | 14,666,214 | 3,881,545 | 16,522,402 |
|  |  |  |  |  |
| **Total assets** |  | 17,384,519 | 6,089,513 | 18,489,166 |
|  |  |  |  |  |
| **Issued capital and reserves attributable to owners of parent** | |  |  |
| Issued share capital |  | 1,391,857 | 1,013,670 | 1,391,857 |
| Share premium |  | 40,895,709 | 27,103,356 | 40,895,709 |
| Capital restructuring reserve |  | 6,486,077 | 6,486,077 | 6,486,077 |
| Retained earnings |  | (33,037,944) | (30,043,689) | (31,580,550) |
|  |  |  |  |  |
| **Total equity** |  | 15,735,699 | 4,559,414 | 17,193,093 |
|  |  |  |  |  |
| **LIABILITIES** |  |  |  |  |
| **Current liabilities** |  |  |  |  |
| Trade and other payables |  | 1,316,616 | 1,240,099 | 910,301 |
| Lease liabilities |  | 68,875 | - | 68,875 |
|  |  |  |  |  |
| **Total current liabilities** |  | 1,385,491 | 1,240,099 | 979,176 |
|  |  |  |  |  |
| **Non-current liabilities** |  |  |  |  |
| Lease liabilities |  | 122,964 | - | 157,227 |
| Provisions |  | 140,365 | 290,000 | 169,670 |
|  |  |  |  |  |
| **Total non-current liabilities** |  | 263,329 | 290,000 | 326,897 |
|  |  |  |  |  |
| **Total liabilities** |  | 1,648,820 | 1,530,099 | 1,306,073 |
|  |  |  |  |  |
| **Total equity and liabilities** |  | 17,384,519 | 6,089,513 | 18,489,166 |

**Consolidated cash flow statement for the six months ended 31October 2020**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Unaudited**  **Six months ended**  **31 Oct 2020** | **Unaudited**  **Six months ended**  **31 Oct 2019** | **Audited**  **Year**  **ended**  **30 Apr 2020** |
|  | **£** | **£** | **£** |
| **Cash flows from operating activities** |  |  |  |
| Loss before taxation | (1,750,143) | (1,571,224) | (3,342,640) |
| *Adjustments for:* |  |  |  |
| Amortisation | 6,697 | 5,566 | 11,700 |
| Depreciation | 551,605 | 464,349 | 1,035,907 |
| Equity settled share-based payments | 163,787 | 119,348 | 233,786 |
| Loss on disposal of plant, property and equipment | 1,557 | - | 3,552 |
| Net financial income | (5,032) | (1,954) | (2,107) |
| **Operating cash flow before changes in working capital, interest and taxes** | (1,031,529) | (983,915) | (2,059,802) |
| Decrease/(increase) in trade and other  receivables | (339,326) | 3,514 | 60,036 |
| Increase /(decrease) in trade and other payables | 406,315 | (458,907) | (256,844) |
| Decrease in provisions | (29,304) | - | (120,330) |
| **Cash utilised by operations** | (993,844) | (1,439,309) | (2,376,940) |
| Tax received | - | - | 314,734 |
| **Net cash flow from operating activities** | (993,844) | (1,439,309) | (2,062,206) |
|  |  |  |  |
| **Cash flows from investing activities** |  |  |  |
| Interest received | 9,033 | 8,386 | 12,406 |
| Purchase of intangible assets | (407,753) | (3,217) | (53,995) |
| Purchase of property, plant and equipment | (893,649) | (617,917) | (1,202,855) |
| Sale of property, plant and equipment | - | - | 12,595 |
| Increase in other financial assets | (3,496) | (1,867) | (410,237) |
| **Net cash used in investing activities** | (1,295,865) | (614,614) | (1,642,086) |
|  |  |  |  |
| **Cash flows from financing activities** |  |  |  |
| Proceeds from issuance of ordinary share capital | - | 600 | 15,105,525 |
| Cost of share issue | - | - | (934,385) |
| Capital element of finance leases repaid | (38,263) | (38,262) | (76,526) |
| **Net cash from financing activities** | (38,263) | (37,662) | 14,094,614 |
|  |  |  |  |
| **Net (decrease)/ increase in cash and cash equivalents** | (2,327,972) | (2,091,585) | 10,390,322 |
|  |  |  |  |
| **Cash and cash equivalents at the start of the period** | 13,989,538 | 3,599,216 | 3,599,216 |
|  |  |  |  |
| **Cash and cash equivalents at the end of the period** | 11,661,566 | 1,507,631 | 13,989,538 |

**Consolidated statement of changes in equity (unaudited)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Share capital** | **Share premium account** | **Capital**  **restructuring reserve** | **Retained earnings** | **Total** |
|  | **£** | **£** | **£** | **£** | **£** |
| **As at 30th April 2019** | **1,013,070** | **27,103,356** | **6,486,077** | **(28,725,856)** | **5,876,647** |
| Adjustment in respect of  adoption of IFRS 16 | - | **-** | **-** | (5,691) | (5,691) |
| **As at 30th April 2019 (restated)** | **1,013,070** | **27,103,356** | **6,486,077** | **(28,731,547)** | **5,871,556** |
| Issue of shares | 600 | **-** | **-** | - | 600 |
| Share-based payment | **-** | **-** | **-** | 119,348 | 119,348 |
| Loss and total  comprehensive income | **-** | **-** | **-** | (1,431,490) | (1,431,490) |
| **As at 31 October 2019** | **1,013,670** | **27,103,356** | **6,486,077** | **(30,043,689)** | **4,559,414** |
| Issue of shares | 378,187 | 14,726,738 | - | - | 15,104,925 |
| Cost of share issue | - | (934,385) | - | - | (934,385) |
| Share-based payment | - | - | - | 114,438 | 114,438 |
| Loss and total  comprehensive income | **-** | **-** | **-** | (1,651,299) | (1,651,299) |
| **As at 30th April 2020** | **1,391,857** | **40,895,709** | **6,486,077** | **(31,580,550)** | **17,193,093** |
| Share-based payment | **-** | **-** | **-** | 163,787 | 163,787 |
| Loss and total  comprehensive income | **-** | **-** | **-** | (1,621,181) | (1,621,181) |
| **As at 31 October 2020** | **1,391,857** | **40,895,709** | **6,486,077** | **(33,037,944)** | **15,735,699** |

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 2020 does not constitute the full statutory accounts for that period. The Annual Report and Accounts for 30 April 2020 have been filed with the Registrar of Companies. The Independent Auditors’ Report on the Annual Report and Accounts for 2020 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 2020, amounted to £12.4m. 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.

1. 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 2020** | **Unaudited**  **Six months ended**  **31 Oct 2019** | **Audited**  **Year**  **ended**  **30 Apr 2020** |
|  | **Number** | **Number** | **Number** |
|  |  |  |  |
| Weighted average number of equity shares | 139,185,712 | 101,321,426 | 104,645,940 |
|  |  |  |  |
|  | **£** | **£** | **£** |
|  |  |  |  |
| Loss, being loss after tax | (1,621,181) | (1,431,490) | (3,087,906) |
|  |  |  |  |

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 –**