

12 January 2016

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

Half Yearly Report

Ilika (AIM: IKA), the accelerated materials innovation company, announces its unaudited half yearly report for the six months ended 31 October 2015. The period has seen continued progress with its solid-state battery development programme, a strengthening of its IP portfolio and constructive discussions with its commercial partners.

Ilika accelerates the discovery of new and patentable materials using its patented high throughput technologies process for identified end uses in the energy, electronics, and aerospace sectors. Its flagship programme is the development of unique solid-state batteries.

Operational Highlights

- Data from working prototype batteries shared with potential OEM partners
- Alignment and agreement of battery capability with OEM partners, enabling definition of a roadmap of specific battery architectures
- Patent granted in China for Ilika’s proprietary process to produce solid-state batteries
- UK Grant Award of £470k to take a lead role in £2.15m collaborative programme to develop self-healing alloys for aerospace applications
- European Patent Office upheld Ilika’s opposition to a fuel cell catalyst patent from Brookhaven Science Associates (BSA)
- Mike Inglis, former board member and executive of ARM, appointed as Non-Executive Chairman

Financial Summary

- Total revenue for the period of £0.3m (1H 2014: £0.6m)
- Loss per share of 3p (1H 2014: 2p per share)
- Net cash outflow in the period of £1.5m (1H 2014: inflow £0.1m)
- Net Cash at period end of £4.5m (1H 2014: £7.2m)

As previously announced, during the first half of the year, the Group committed an increasing proportion of its operational resource to the internally funded battery development programme, intended to drive the growth of the business over the coming years. As a consequence, the Group has generated lower revenue and profit from customers than in the prior year.

Commenting on the results Graeme Purdy, CEO of Ilika, said: “Our team has made good progress and breakthroughs with this complex technology and has produced working batteries for evaluation by our target OEM partners. This effort has resulted in interactions which have led to the definition of a detailed product roadmap. We now look forward to advancing these designs and stepping up our commercial interactions with our OEM partners.”

Ilika plc

Graeme Purdy, Chief Executive
Steve Boydell, Finance Director

+44 (0)23 8011 1400

NUMIS Securities Limited

Oliver Cardigan/ Paul Gillam/
James Black

+44 (0) 20 7260 1000

Walbrook PR Ltd

Paul Cornelius
Lianne Cawthorne

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

Mob: +44 (0)7827 879 460
Mob: +44 (0)7584 391 303

Joint Chairman's and CEO's Statement

Review of Period

Ilika has continued to pursue its strategy of deploying its high throughput materials development capabilities in the energy, electronics and aerospace sectors. Ilika maintains a portfolio of activities, with its principal focus being its flagship programme for the development of solid-state batteries.

Solid-state battery technology

Ilika has been active in the development of solid-state battery technology since 2008, when it commenced a collaboration with Toyota, principally to develop materials suitable for use in batteries for hybrid vehicles. In the course of that collaboration Ilika and Toyota have filed joint patent applications protecting relevant materials and processes. The key advantages of solid-state batteries relative to standard lithium-ion batteries are:

- Non flammable
- 6 x faster charging
- 4x longer charge retention
- 2x increased energy density, making them half the volume for a given charge

Ilika has identified that these benefits also make the batteries suitable for applications outside of the automotive sector. In particular, Ilika has defined a commercially-oriented, detailed product roadmap for its initial target market, which is micro-batteries for the "Internet of Things" (IoT).

Ilika's battery technology is differentiated from other solid-state batteries through its choice of materials and its use of an efficient evaporation process that is capable of higher deposition rates than other solid-state routes. This results in the following benefits relative to previous solid-state battery designs:

- Ability to stack cells in a continuous process prior to encapsulation, increasing the energy capacity per footprint of battery
- Less encapsulation required
- High temperature resilience

Within the IoT market, there are a number of segments which are addressable with Ilika's technology. The largest market for IoT connected devices is in domestic homes and commercial buildings (smart buildings). Typical devices in smart buildings measure light, temperature and humidity, feeding into lighting and Heating Ventilation and Air Conditioning systems. Currently, most of the systems deployed in smart buildings are hard-wired, resulting in significant installation costs. Deploying battery-powered sensors reduces installation costs, particularly for the retrofit of existing buildings, but such batteries must be rechargeable to avoid high maintenance costs associated with regular battery replacement. In this context, Ilika's battery technology offers the benefit of being suitable for combination with energy harvesting devices. The most readily available energy harvesters are photovoltaic panels, which are becoming increasingly efficient and cost effective.

The specific benefits of Ilika's battery technology for this application are a small battery footprint, a long battery life (expected to be 10 years), the ability to discharge rapidly when a burst of data transmission is required and finally, the ability to be trickle charged by the small electrical currents typically generated by such small harvesting devices.

Another segment of interest is transport applications, including automotive and aerospace, where using distributed batteries and energy harvesters can reduce the significant capital and operating cost of the cabling currently required to connect instrumentation. The high temperature resilience of Ilika's batteries is one of the key benefits relevant here.

A further addressable market is the healthcare sector. Ilika's batteries can enable miniature medical devices in a way that is currently not possible with conventional lithium-ion batteries. Also, the use of wireless

technology and distributed sensors can create patient monitoring solutions with substantial cost reduction and enhanced care benefits.

The product that Ilika will market to its partners will be a licensing package including the following:

- Battery architecture design
- Detailed definition of the materials composition and properties
- Manufacturing process description
- Sample battery devices and supporting system
- IP portfolio

Following the commencement of pilot production of solid-state batteries in March 2015, Ilika has been optimising the performance of the equipment and the batteries and has shared performance data for evaluation by commercial partners.

The first product on Ilika's roadmap is code-named "Pelican", which is expected to be launched in H1 2016 and is designed to address multiple opportunities identified in the above discussion on addressable markets. It will provide a basis for further product lines going forward.

Commercial Progress

Ilika's intention is to license its technology to OEM partners using the model that has become familiar in the semiconductor industry, based on license fees and royalties. Through the use of its pilot line, Ilika is also able to provide initial quantities of product to seed the market for OEM's. Licensing may also involve the use of 3rd party foundries working under contract to OEM's.

Ilika has continued to pursue a three-phase strategy to the commercialisation of its battery technology:

- Optimisation of the battery architecture for specific applications
- Validation and integration of the batteries into application systems
- Technology transfer and licensing for manufacture

The development of the roadmap is demonstration of the implementation of the first phase of this strategy. This phase will continue to run in parallel with second phase, which has now commenced. The first two phases are creating a pipeline of commercialisation opportunities underpinning the future revenue growth of the company.

Intellectual Property Reinforcement

Ilika has continued to support the filing and prosecution of patents protecting its proprietary intellectual property (IP) in solid-state batteries. In September 2015, Ilika received a Notice of Grant in China for its patent application supporting solid-state batteries jointly filed with Toyota Motor Company on 21 July 2011. This notice followed the successful British grant in May 2014 and the European grant in July 2015. This filing resulted from collaborative work undertaken by Ilika and Toyota, which commenced in 2008. This patent family is one of the two earliest filings of a growing portfolio of IP exemplifying Ilika's unique approach to solid-state battery production using evaporation sources. More recent applications in the portfolio contain both jointly-owned and solely-owned IP.

Materials Development Portfolio

In addition to its flagship product development programme for solid-state batteries, Ilika has continued to support an active portfolio of materials development projects. Over the first half of the current financial year, around 75% of Ilika's resources were deployed in solid-state battery development, 15% in alloys for aerospace and 10% in materials for electronics.

The largest aerospace alloy project was the continuation of the £1.3 million grant-funded superalloy development project which started in April 2014 with the University of Cambridge, Diamond Light Source and Rolls Royce. In September 2015 Ilika announced that it had been awarded a further £466,000 grant for research and technology into self-healing alloys, as part of a lead role in a £2.15 million, three-year collaborative project with Reliance Precision Engineering, University of Sheffield, GKN and BAE Systems. This

latest project has two objectives: the development of a new generation of self-healing alloys suitable for additive manufacturing (AM) and secondly the development of manufacturing processes combining the flexibility of AM with the precision of subtractive (conventional) machining.

Board

In July 2015, Ilika announced the appointment of Mike Inglis as a Non-Executive Director, who subsequently took over from Jack Boyer OBE as Non-Executive Chairman following Mike's successful election at the AGM in September 2015. Mike is also a Non-Executive Director of BT and an Independent Director of US-based Advanced Micro Devices Inc (AMD). He was formerly Chief Commercial Officer at ARM Holdings plc until March 2013, having previously been EVP of ARM's Processor Division and EVP Sales and Marketing. Mike's appointment is particularly pertinent to Ilika's ambition to commercialise its know-how through licensing models successfully deployed by ARM in the semiconductor sector.

Outlook

Sustained technical progress in 2015 has resulted in Ilika being in a strong position to intensify its interactions with OEM partners going forward. In 2016, the Company expects to make further progress with the implementation of its roadmap, including entering into a series of technology integration projects designed to bring IoT solutions to the market.

Graeme Purdy, CEO
Mike Inglis, Chairman
Ilika plc

Consolidated statement of comprehensive income for the six months ended 31 October 2015

	Notes	Unaudited Six months ended 31 Oct 2015 £	Unaudited Six months ended 31 Oct 2014 £	Audited Year ended 30 Apr 2015 £
Revenue		253,693	606,328	1,093,978
Cost of sales		(166,881)	(339,458)	(591,044)
Gross profit		86,812	266,870	502,934
Administrative expenses		(1,980,137)	(1,866,561)	(3,588,837)
Operating loss		(1,893,325)	(1,599,691)	(3,085,903)
Financial income		18,162	27,080	50,557
Loss before tax		(1,875,163)	(1,572,611)	(3,035,346)
Taxation		203,423	167,500	333,647
Loss for period/total comprehensive income attributable to owners of parent		(1,671,740)	(1,405,111)	(2,701,699)
Loss per share	2			
Basic and diluted		(0.03)	(0.02)	(0.04)

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

Consolidated balance sheet as at 31 October 2015

Notes	Unaudited Six months ended 31 Oct 2015 £	Unaudited Six months ended 31 Oct 2014 £	Audited Year ended 30 Apr 2015 £
ASSETS			
Non current assets			
Intangible assets	22,102	35,192	30,119
Property, plant and equipment	486,540	553,246	560,698
Total non current assets	508,642	588,438	590,817
Current assets			
Trade and other receivables	525,374	636,454	496,985
Current tax receivable	175,000	137,975	304,122
Other financial assets – bank deposits	536,461	6,052,336	528,349
Cash and cash equivalents	4,005,500	1,202,433	5,479,035
Total current assets	5,242,335	8,029,198	6,808,491
Total assets	5,750,977	8,617,636	7,399,308
Issued capital and reserves attributable to owners of parent			
Issued share capital	663,779	658,836	663,748
Share premium	17,467,077	17,391,768	17,465,442
Capital restructuring reserve	6,486,077	6,486,077	6,486,077
Retained earnings	(19,673,197)	(16,831,890)	(18,094,830)
Total equity	4,943,736	7,704,791	6,520,437
LIABILITIES			
Current liabilities			
Trade and other payables	657,241	762,845	728,871
Provisions	150,000	150,000	150,000
Total liabilities	807,241	912,845	878,871
Total equity and liabilities	5,750,977	8,617,636	7,399,308

Consolidated cash flow statement for the six months ended 31 October 2015

	Unaudited Six months ended 31 Oct 2015 £	Unaudited Six months ended 31 Oct 2014 £	Audited Year ended 30 Apr 2015 £
Cash flows from operating activities			
Loss before taxation	(1,875,163)	(1,572,611)	(3,035,346)
<i>Adjustments for:</i>			
Amortisation	8,017	4,644	12,736
Depreciation	143,154	190,999	324,556
Equity settled share based payments	93,373	-	33,648
Net financial income	(18,162)	(27,080)	(50,557)
Operating cash flow before changes in working capital, interest and taxes	(1,648,781)	(1,404,048)	(2,714,963)
Decrease/(increase) in trade and other receivables	(28,389)	(64,150)	79,918
Increase/(decrease) in trade and other payables	(71,630)	152,098	118,124
Cash utilised by operations	(1,748,800)	(1,316,100)	(2,516,921)
Tax received	332,545	277,716	277,716
Net cash flow from operating activities	(1,416,255)	(1,038,384)	(2,239,205)
Cash flows from investing activities			
Interest received	18,162	27,080	45,958
Sale of property plant and equipment	-	1,625	1,640
Purchase of property, plant and equipment	(68,996)	(177,285)	(279,267)
Purchase of intangible assets	-	-	(42,062)
(Increase)/ Decrease in other financial assets	(8,112)	(4,275,570)	1,248,418
Net cash used in investing activities	(58,946)	(4,424,150)	(974,687)
Cash flows from financing activities			
Proceeds from issuance of ordinary share capital	1,666	1,335,000	1,413,586
Net cash from financing activities	1,666	1,335,000	1,413,586
Net (decrease)/ increase in cash and cash equivalents	(1,473,535)	(4,127,534)	149,068
Cash and cash equivalents at the start of the period	5,479,035	5,329,967	5,329,967
Cash and cash equivalents at the end of the period	4,005,500	1,202,433	5,479,035

Consolidated statement of changes in equity (unaudited)

	Share capital £	Share premium account £	Capital restructuring reserve £	Retained earnings £	Total £
As at 30 April 2014	632,660	16,082,944	6,486,077	(15,426,779)	7,774,902
Issue of shares	26,176	1,308,824	-	-	1,335,000
Loss and total comprehensive income	-	-	-	(1,405,111)	(1,405,111)
As at 31 October 2014	658,836	17,391,768	6,486,077	(16,831,890)	7,704,791
Issue of shares	4,912	73,674	-	-	78,586
Share based payment	-	-	-	33,648	33,648
Loss and total comprehensive income	-	-	-	(1,277,940)	(1,277,940)
As at 30 April 2015	663,748	17,465,442	6,486,077	(18,094,830)	6,520,437
Issue of shares	31	1,635	-	-	1,666
Share based payment	-	-	-	93,373	93,373
Loss and total comprehensive income	-	-	-	(1,671,740)	(1,671,740)
As at 31 October 2015	663,779	17,467,077	6,486,077	(19,673,197)	4,943,736

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 2015 does not constitute the full statutory accounts for that period. The Annual Report and Accounts for 30 April 2015 have been filed with the Registrar of Companies. The Independent Auditors' Report on the Annual Report and Accounts for 2015 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 2015, amounted to £4,541,961. The directors have prepared projected cash flow information for the period ending twelve months from the date of their approval of these financial statements. The Board is confident that in the event that they choose to raise further finance this would be achievable based on the future prospects of the business and previous experience in raising equity finance, but acknowledge that this would be dependent on market conditions. 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 2015	Unaudited Six months ended 31 Oct 2014	Audited Year ended 30 Apr 2015
	Number	Number	Number
Weighted average number of equity shares	66,375,158	65,626,980	65,895,078
	£	£	£
Loss, being loss after tax	<u>(1,671,740)</u>	<u>(1,405,111)</u>	<u>(2,701,699)</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 –