

# PIONEERS IN SOLID-STATE BATERY BATERY TECHNOLOGY AND MATERIALS

# ILIKA IS A PIONEER IN SOLID-STATE BATTERY TECHNOLOGY AND MATERIALS INNOVATION

Ilika plc is the holding company for Ilika Technologies Limited. Ilika has developed ground-breaking solidstate battery technology to meet the demands of the Internet of Things ('IoT'). Ilika has a unique, patentprotected high-throughput technology platform which accelerates the discovery of new and patentable materials for identified end uses in the automotive, aeronautical and electronics sectors.

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"I have been very encouraged by the operational and commercial progress made at Ilika this year. We followed up the launch of our first Stereax<sup>™</sup> product, the M250, with the launch of a high temperature battery, the P180, for industrial IoT applications. Using our Stereax<sup>™</sup> pilot line we have been able to supply samples of our batteries to potential customers and support the discussions being led by our commercial team around the globe. The first commercial engagements for Stereax<sup>™</sup> have been secured and I anticipate these, and other interactions, to lead to closer engagements going forward. I am also pleased to see revenues tick up this year, which based on our strong current order book, is a trend I expect to see continuing in 2017/18."

MIKE INGLIS CHAIRMAN

### **FINANCIAL HIGHLIGHTS**

REVENUES

(£)

£1.1m (2016: £0.6m)





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FUNDRAISING IN A YEAR









### **OPERATIONAL HIGHLIGHTS**

- Launch of Stereax<sup>™</sup> P180, extended temperature range solid-state battery
- Collaboration with a bioelectronics company to develop Stereax<sup>™</sup> for miniature medical implants
- Collaboration with Sharp (now Lightricity) to integrate Stereax<sup>™</sup> solid-state batteries with photovoltaic technology
- Grant of patents protecting Stereax<sup>™</sup> technology
- Award of grant to develop protected anodes for lithium sulphur batteries with Johnson Matthey
- Award of grant to develop photonic materials for hard disk drives ('HDD') with Seagate
- Collaboration with Toyota Research Institute ('TRI') to identify new advanced battery materials and fuel cell catalysts that can power future zero-emissions and carbon-neutral vehicles
- Grant of patents protecting unique High-Throughput Vapour Deposition method



# AT A GLANCE

Ilika plc (LON: IKA) is a pioneer in materials innovation, including in automotive, aeronautical and electronic components sectors. Global brands such as Rolls-Royce and Toyota have long-term collaborations with Ilika's development teams. By applying that heritage of patented materials invention, Ilika has developed ground-breaking solid-state battery technology to meet the demands of the IoT.

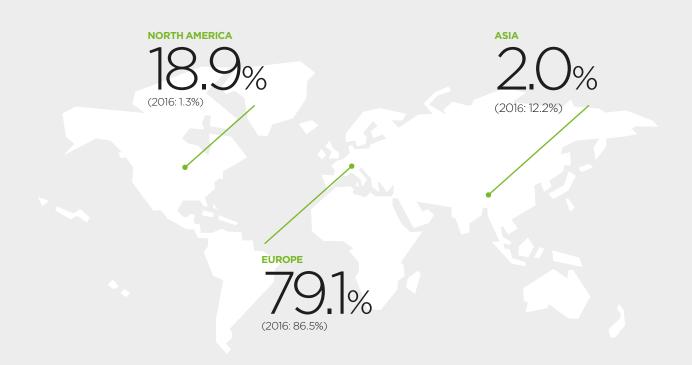
### STEREAX<sup>™</sup> BATTERY TECHNOLOGY

Miniaturised batteries are a critical enabler to current and emergent technologies, including wearables, medical devices and the IoT. Ilika has been working with solid-state battery technology since 2008 and offers its Stereax™ battery technology to companies who need energy efficient batteries. These are energy dense batteries in the smallest possible footprint, with distinct benefits over lithium-ion batteries.

### MATERIALS INNOVATION

llika's high-throughput technology enables functional materials to be made, characterised and tested up to 100 times faster than traditional techniques. Its robust datasets fully define the performance of families of materials. This enhances intellectual property value, optimises product performance and reduces time to market, thereby minimising costs and maximising the return on your R&D investment.

### **REVENUE BY GEOGRAPHICAL MARKET**



The Stereax<sup>™</sup> P180 is a unique solid-state battery that can operate and be stored in the extended temperature range -40°C to +150°C.

### APPLICATIONS



### **INDUSTRIAL IoT**

- Small unobtrusive beacons
- High temperature environments
- Retro fitting existing equipment



AUTOMOTIVE

- Autonomous increased range of sensing
- Minimal wiring to decrease weight
- Constant monitoring



### AEROSPACE

- Low temperature environment
- Fit and forget minimal maintenance
- Stable power sources



### INFRASTRUCTURE

- Easy to fit beacons
- Wide temperature range
- Minimise cost of ownership

# FREQUENTLY ASKED QUESTIONS

STEREAX<sup>™</sup> P180

## Q In what applications could the batteries be used?

The size and performance of the Stereax™ P180 solid-state battery make it ideal for applications in autonomous sensor devices in the IoT. In particular, its performance at high temperatures (up to +150°C), make it appropriate to power end nodes situated near hot machinery or engines and exhausts in cars. At low temperature, such end nodes may be deployed to monitor infrastructure such as pipelines or bridges. For automotive applications, the Stereax™ P180 may store energy and combine with supercaps to power devices on cold mornings.

## Q What is the operating temperature range of the batteries?

A The Stereax<sup>™</sup> P180 can work between -40°C and +150°C.

#### **Q** What is the capacity of the P180?

A Performance for the P180 varies with operating temperature. Above room temperature and up to 150°C, the P180 yields 180 μAh, whereas at the other end of the temperature scale, at -40°C, a capacity of 160 μAh is achieved.

## Q Can the Stereax<sup>™</sup> battery technology power real devices now?

To illustrate the ability of the Stereax™ Α P180 solid-state battery to power real devices, Ilika has designed and constructed a demonstrator for high temperature applications. This device is a perpetual beacon for industrial or automotive applications. It is an autonomous sensing device of minimal size, which is powered by a combination of harvested solar energy from a high efficiency, indoor PV panel and the Stereax™ P180 solid-state battery. The PV panel provides energy when solar energy is available (for example during the day) and keeps functioning when the solar energy becomes unavailable, by discharging the battery. The device may be placed in contact with hot surfaces of up to 105°C to replicate hot machinery or hot engine parts. A sensor measures temperature data, which is transmitted through Bluetooth® to a tablet where battery characteristics (voltage, state of charge) are displayed.

#### Q What benefits do solid-state batteries have over existing lithium-ion batteries?

A The major benefits of solid-state batteries derive from the solid electrolyte. Conventional lithium-ion batteries use an organic solvent, which is flammable and has a relatively short useful life.

Performance benefits include:

- Faster charging (6x faster)
   Increased energy density (2x energy for the same volume)
- Increased cycle life (up to 10 years, compared to 2)
- Low leakage currents (nanoamps)
- Non-flammability

#### Q How does Ilika's solid-state battery differ from other solid-state batteries?

A The main difference is the combination of materials. Other solid-state batteries use 'free lithium', which is highly reactive with moisture and air and hence requires stringent encapsulation. In the Stereax™ P180, the lithium is not free during storage or cycling; it is 'alloyed' in the cathode or anode and this reduces the encapsulation requirements.

# **Q** Is the battery voltage similar to current lithium-ion batteries?

A The output voltage for the Stereax<sup>™</sup> P180 is 3.5V.

## Q What materials are used in the batteries?

A The Stereax<sup>™</sup> P180 batteries use similar cathodes to current lithium batteries, but uses different materials for the electrolyte and anode. The anode in the Stereax<sup>™</sup> P180 is silicon. New materials were selected to enable the deployment of the P180 between -40°C and +150°C.

#### Q Are solid-state batteries limited to the same cylindrical (prismatic) format as conventional batteries such as AA or AAA format?

A Solid-state batteries are flat and the Stereax™ P180 batteries have a square footprint. The footprint can be adapted to suit the end device requirements.

#### Q How thin can a solid-state battery be?

A The thickness is dependent on the thickness of the substrate. For the Stereax™ P180 battery, we use a standard 650 µm silicon substrate and the overall thickness of the battery is circa 1.0 mm. Tests are ongoing to use other substrates, such as 200 µm glass.

# CASE STUDY

### COLLABORATION WITH LIGHTRICITY

Ilika is leading a 2-year project which will see Ilika's Stereax<sup>™</sup> solid-state battery technology integrated with Lightricity's PV technology to provide an integrated energy harvesting and storage solution for wireless sensing.



#### Q Can Stereax<sup>™</sup> solid-state batteries be integrated with a microcontroller ('MCU')?

A The size and form factor of the Stereax<sup>™</sup> solid-state batteries mean they are a good match for integration on chips or in MCU packages. The low temperature evaporation process is similar to that used for Micro-ElectroMechanical Systems ('MEMS') manufacture.

# Q What is the scalability of the technology?

A Ilika's batteries can be scaled to larger footprints through production processes used to produce bulk glass and photovoltaic panels ('PV'). This creates the potential for large area batteries.

#### Q Will Stereax<sup>™</sup> battery technology ever be scaled-up large enough to provide motive power in electric vehicles?

A The materials used in Stereax<sup>™</sup> batteries can be used in large-scale battery packs like those needed for electric vehicles. However, lika is currently focused on micro-batteries for powering wireless sensors. These micro-batteries are made using lika's proprietary vapour deposition process. To be economically viable, larger batteries would probably need to be made using bulk powder processing techniques.

# Q Does Ilika have patents protecting this new technology?

A Ilika currently has 6 patent families which cover 3 main areas: the composition of the materials in the battery, the process to make the battery and the cell architecture of the battery.

# Q These solid-state batteries look great! Where can I purchase some?

A The Stereax<sup>™</sup> technology platform is developed by Ilika, who licenses its Intellectual Property ('IP') portfolio and know-how to systems and components Original Equipment Manufacturers ('OEMs') and manufacturers. This format allows Ilika to respond to partners' requirements more efficiently than manufacturing standardised product lines, for an optimal outcome and greater flexibility in terms of shape, capacity, life cycle etc. The Stereax™ M250 and P180 are embodiments of Ilika's IP, which illustrates key technological developments achieved by Ilika.

# CHIEF EXECUTIVE'S REVIEW

### **OPERATING REVIEW**

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, making it particularly suitable for micro-battery applications.



Graeme Purdey CEO

#### Solid-state batteries

Ilika has been working with solidstate 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, making it particularly suitable for micro-battery applications. Battery technology is a key challenge in the electronics sector, with the IoT being a key driver of growth and battery technology development.

IoT devices offer a different set of battery challenges compared to other electronic devices. They have similar pressures, such as cost and availability, but they also have some specific requirements:

- Small size in both footprint and thickness
- Ability to be trickle charged
- Charged only when an energy harvester can get energy
- Longer life span to match those of sensors and MCUs
- Support wider temperature ranges

llika's solid-state batteries have several benefits over currently available lithium-ion batteries:

- 6x faster to charge
- Energy dense in a small footprint
- 10x lower leakage currents
- Non-flammable
- Can be integrated into Integrated Circuit ('IC') components to reduce end device size





#### **Battery product launch**

In April 2016, Ilika launched its Stereax™ M250 solid-state battery IP. This is a miniaturised solidstate battery for IoT devices and is designed to address the key challenge of always-on, self-charging and efficient energy. Ilika Stereax batteries use patented materials and processes enabling superior energy density per battery footprint, up to 40 percent improvement on current solid-state solutions. Ilika's batteries do not contain any free lithium, which makes them more moisture resistant. The Stereax™ M250 operates in a temperature range to over 100°C, 30°C higher than existing solid-state products.

In April 2017, Ilika launched the Stereax<sup>™</sup> P180, with the additional benefits of support for extended temperature ranges from -40°C up to +150°C. This range is required for many Industrial IoT and automotive end applications enabling alwayson, self-charging energy-efficient IoT solutions for more demanding environments. As the trend towards digitising industrial processes gathers momentum, there is a growing requirement for components with enhanced tolerance to temperature, moisture and vibration.

#### CASE STUDY

### MINIATURE MEDICAL IMPLANTS

Ilika is leading a 2-year project to develop a solid-state battery for use in miniature medical implants. Ilika's Stereax™ batteries have a high power density, a long battery life and they can be produced in miniature form, making them particularly suitable for these micro-devices.

This programme aims to deliver key components of bioelectronic devices, which have the potential to provide treatments for serious health conditions, through the body's own nervous system.



# CHIEF EXECUTIVE'S REVIEW CONTINUED

### **BUSINESS STRATEGY**

The Company's strategy is to commercialise the IP that it has created, and continues to create, in its Stereax<sup>™</sup> solidstate battery programme. The Company has developed miniature batteries as an enabler for wireless sensors used in industrial and medical applications.

The Company's strategy is to commercialise the IP that it has created, and continues to create, in its Stereax<sup>™</sup> solid-state battery programme. The Company has developed miniature batteries as an enabler for wireless sensors used in industrial and medical applications.

The Company's objective is to have its batteries integrated into market-leading products sold by leading commercialisation partners around the world. The Company generally expects these endproducts to fit into or create endmarkets worth in excess of \$1 billion per year, in which the Directors believe a number of the Company's commercialisation partners are positioned to have a leading share.

The Company uses its processes to discover and commercialise novel materials for integration into products with high-value endmarkets. In order to ensure a high probability of commercial success. the Company prefers to develop these materials in collaboration with large multinational companies, which have the expertise to bring new products to market to address unmet needs in their sectors. The Company aims to create IP such that it will benefit from commercialisation rewards associated with the ultimate generally adopted technology.

#### THE COMPANY IS PURSUING ITS OBJECTIVES THROUGH THE FOLLOWING STRATEGIES

Developing leading-edge high-throughput development processes

Partnering with companies committed to developing and globally commercialising jointly developed products

Using high-throughput processes to invent patentable functional materials across addressable markets in the automotive, aeronautical and electronic components sectors

Development of valuable products through the application of functional materials

#### PROGRESS IN 2016/17

- Grant of patent protecting HT-PVD system in Europe, completing targeted patent coverage
- \$1 million contract with the TRI
- Photonic materials development contract with Seagate
- Battery anode development contract with Johnson Matthey
- Grant of patents in China and USA covering Stereax<sup>™</sup> deposition processes
- Grant of patents covering core-shell catalysts in USA
- 8 new patent applications published

 Launch of Stereax<sup>™</sup> P180 battery, extending the operating temperature range of the Stereax<sup>™</sup> family of solid-state batteries Stereax<sup>™</sup> P180 batteries integrated into a BLE beacon



The Company's revenue model involves three phases of activity: a) commercially-funded and grantfunded development projects; b) IP licensing; and c) receipt of royalties when products incorporating Company IP reach market. The Company is currently in the first phase of activity, with its revenue being generated from development fees. The Company has built a pipeline of licensing opportunities to support the start of its second phase of revenue generation.

#### Our business model

- Advanced solid-state technology developer
- Business model to potentially yield high margins over time
  - Upfront license fee from flexible licensing models
  - Ongoing royalties, based on a percentage of system volume shipped
- Technology deployed across multiple applications
- Long-term, global growth markets



# CHIEF **EXECUTIVE'S REVIEW** CONTINUED

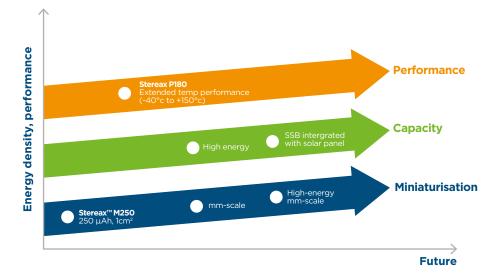
### **BUSINESS STRATEGY continued**

Battery roadmap The Ilika Stereax™ roadmap focuses on three main areas:

- Performance. The hostile environment of many industrial applications requires tolerance to extended temperature ranges and vibration. The Stereax™ P180 is the first solid-state battery to address these needs and its launch will be supported by further development in this area.
- Capacity. For the launch of both the M250 and the P180, Ilika designed and made some wireless sensor nodes measuring temperature, humidity and light intensity. The power requirements of sensors does vary, depending on the nature of the sensor. For example, a motion detector has a higher power requirement than a temperature sensor. In order to be able to power a wider range of devices, Ilika is increasing the energy footprint of its batteries. Increasing the amount of energy for a given active footprint can be achieved by utilising Ilika's patented stacking feature, which allows multiple cells to be stacked on top of one another.
- Miniaturisation. This looks at progressively smaller footprints at smaller currents (µAh), making them ideal for small sensor driven devices.

#### Medical

During the year, the Company announced a 2-year collaborative project with a well-financed bioelectronics company to develop a battery for miniature medical implants to provide treatments for serious health conditions, through the body's own nervous system. The programme is supported by Innovate UK and the Medical Research Council.



#### Integrated energy harvester and battery

During the year, the Company announced a 2-year collaborative project with Sharp Laboratories of Europe (now known as Lightricity) to create an autonomous energy harvesting power source which will involve the integration of Ilika's solid-state battery with Lightricity's photovoltaic ('PV') technology, creating the world's first fully integrated thin-film power source. This integration project is aligned with the development track for increasing the capacity of Stereax™ batteries.

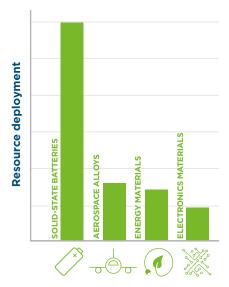
#### **Patent position**

In March 2017, Ilika announced it had received a granted patent in the USA for its patent application supporting solid-state batteries jointly filed with Toyota Motor Company in July 2011. This Notice in the USA followed the successful British grant in April 2014, the Notice of Grant in Europe in July 2015 and in China in September 2015. 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. The more recent applications in the portfolio contain both jointlyowned and solely-owned IP.

#### **Materials portfolio activities**

Solid-state battery development accounted for about 60% of activity in the year, the Company was also active in the development of aerospace alloys and materials for electronics applications.

#### Sector activity at Ilika



#### **Energy materials**

In August 2016, Ilika announced that it is taking part in a 3-year project to develop protected anodes for lithium sulphur batteries, led by Johnson Matthey Plc. This project is developing an innovative protected lithium anode approach to discover new electrolyte composition options and fabricate a free-standing, lithium-containing protected anode/ separator for integration into pouch cells. The novel protected anode will mitigate a commonly experienced problem in lithium-sulphur cells, the so-called polysulphide shuttle effect, leading to enhanced performance cells that can be made with existing cell fabrication methods. The pouch cells being developed in this project are high capacity, low-cost batteries for large-scale renewable energy storage, and therefore address a distinct market segment to the IoT applications for which Ilika's Stereax™ batteries are designed

In March 2017, Ilika announced a \$1 million commercially funded programme with the TRI to develop game-changing energy materials. The programme is part of a \$35 million investment by TRI over the next four years in research that uses artificial intelligence to accelerate the design and discovery of advanced materials. In this initial 1-year collaboration with the Company, Ilika's unique high-throughput platform is being used to make and test candidate materials, which have been identified using simulation, machine learning and artificial intelligence strategies. Promising materials will be further scaled-up by Toyota and its suppliers for deployment in its future low-emission vehicles.

#### **Aerospace alloys**

Ilika has continued in its lead role in a £2.15 million, 3-year Innovate UK grant-funded project with BAE Systems, GKN, Reliance Precision Engineering and the University of Sheffield. The project started in September 2015 to develop a new generation of self-healing alloys suitable for additive manufacturing ('AM') processes and to develop a metallic manufacturing process that takes advantage of the flexibility of AM and the precision of subtractive manufacturing. This will enable the manufacture of novel components with critical feature tolerances, meeting the challenges faced in the design of mechanisms for the aerospace industry with lower weight, structural integrity and functional performance.

Additionally, Ilika has continued in its role leading a £1.33 million 3-year Innovate UK-funded project with Rolls-Royce, Diamond Light Source and the University of Cambridge to develop new superalloy compositions for gas turbine engines with better thermo-efficiency than current alloys. The alloys are designed to increase gas turbine performance, reducing  $CO_2$  emissions and noise levels at take-off. This programme is due to continue until September 2017.

#### **Electronic materials**

The 2-year project with Seagate and the University of Southampton ('UoS'), announced in February 2016, is providing a demonstration of '2D materials' for HDD applications. 2D materials are crystalline materials consisting of a single layer of atoms. Materials with superior nanophotonic properties are being developed to achieve improved hard drive performance and reliability. These materials must operate at temperatures of up to 300µC for thousands of hours, requiring extremely robust nanomaterials that have specific photonic properties allowing light energy to be conducted

In February 2017, the Company announced a further 18-month project with Seagate to develop photonic materials and processes for HDD technology. This project will deliver a process for photonic material development with improved data capacity using engineered materials to enable heat-assisted magnetic recording ('HAMR'). Photonic materials, engineered with new process methods, will boost performance and reliability for HAMR hard drives, decreasing time to market.



# FINANCIAL REVIEW

The Financial Review should be read in conjunction with the consolidated financial statements of the Company and Ilika Technologies Limited (together, the 'Group') and the notes thereto on pages 28 to 38. The consolidated financial statements are presented under International Financial Reporting Standards ('IFRS') as adopted by the European Union. The financial statements of the Company continue to be prepared in accordance with IFRS as adopted by the EU and are set out on pages 39 to 43.

### Statement of comprehensive income Revenues

Revenue, all from continuing activities, for the year ended 30 April 2017 was £1.1 million (2016: £0.6 million). This includes £739,000 of grant income recognised from 6 projects that the Company has in progress with Innovate UK (2016: £455,000 from 3 programmes). Details of the various programmes are provided in the Materials portfolio activities on page 11.

More of the Company's activities are supported by grant or commercial funding than was the case in the prior year, where operational resources were more heavily devoted to the internally-funded battery development programme.

# Administrative expenses and losses for the period

Total administrative costs for the year were slightly increased at £3.9 million in 2017 relative to £3.8 million in 2016. This increase is attributable to the increased spend on research and development in the year, particularly associated with the solid-state battery development programme. Combined cost of sales and administrative expenses were £4.3 million in the year, which is up from the £4.1 million for 2016 and is associated with the increased level of commercial and grant supported programmes.

Options were granted in the year and, taken together with a full year's charge for options that were granted last year, gave rise to a share-based payment charge that increased by around £0.2 million to £0.5 million. This increased accounting adjustment meant that loss on continuing activities before tax remained at £3.9 million.

## Statement of financial position and cash flows

At 30 April 2017, net assets amounted to £6.2 million (2016: £3.4 million), including net funds of £5.4 million (2016: £3.0 million).

The principal elements of the £2.4 million increase over the year ended 30 April 2017 in net funds were:

- Funds raised in the year £5.8 million (2016 £0.0 million)
- Cash used in operations of £3.6 million (2016: £3.3 million)
- Purchase of plant, property and equipment of £0.2 million (2016: £0.1 million)
- Research and development tax credits received of £0.4 million (2016: £0.3 million)

On 18 October 2016, gross funds of £6.3 million were raised from new and existing institutional shareholders to strengthen the Group's balance sheet and provide additional working capital during the solidstate battery commercialisation process. Expenses of £465,000 were incurred in the placing.

Trade receivables at the year end increased from £28,000 to £133,000, due to the start of the programme with TRI. This balance was within payment terms and has been received post year end.

Accrued income at the year end increased from £117,000 to £371,000. This is revenue recognised from the 6 grant funded programmes with Innovate UK relative to the 3 programmes last year.

£75,000 of the increase in other receivables in the year is the funds placed in a bond account, taking it to £150,000 to cover the dilapidations provision shown in note 12.

## Treasury policy and financial risk management

Details of the risks associated with financial instruments are shown in note 13 on page 35.

#### Key performance indicators ('KPIs')

The Board considers that the most important KPIs are technical and operational and relate to the sales pipeline and engagement of commercialisation partners resulting from the progress of the technical development programmes outlined above.

The most important financial KPIs are the cash position and the operating loss of the Group, which remain under constant focus and which are considered in the financial review.

# PRINCIPAL RISKS AND UNCERTAINTIES

COMMERCIAL RISK	The Group is subject to competition from competitors who may develop more advanced and less expensive alternative technology platforms, both for existing materials and for those materials currently under development. The Group is largely dependent on its partners to commercialise the end- products containing the Group's materials. The Group seeks to reduce this risk by continually assessing competitive technologies and competitors. The Group seeks to commercialise materials through multiple channels to reduce overreliance on individual partners and, in agreements with partners, it ensures that there are commercialisation milestones which must be met for the partner to retain the rights to commercialise the materials.
FINANCIAL RISK	The Group is reliant on a small number of significant customers and partners. Termination of these agreements could have a material adverse effect on the Group's results or operations or financial condition. The Group expects to incur further operating losses as progress on development programmes continue. There can be no assurance that the Group will ever achieve significant revenues or profitability. The Group seeks to reduce this risk by broadening the number of customers and partners and thereby reducing reliance on individual significant companies. The Group applies for research and development tax credits to help mitigate its investment in these activities.
INTELLECTUAL PROPERTY RISK	The Group faces the risk that IP rights necessary to exploit research and development efforts may not be adequately secured or defended. The Group's IP may also become obsolete before the products and services can be fully commercialised. The Group seeks to reduce this risk by employing in-house staff with extensive
	global experience of patenting and licensing using commercially-available patent searching and landscaping software. External patent agents and attorneys are used to advise on the drafting and filing of patent applications.
DEPENDENCE ON SENIOR MANAGEMENT AND KEY STAFF	Certain members of staff are considered vital to the successful development of the business. Failure to continue to attract and retain such highly skilled individuals could adversely affect operational results. The Group seeks to reduce this risk by offering appropriate incentives to staff through competitive salary packages and participation in long-term share option schemes.
BREXIT RISK	The Group has reviewed the potential impact of Brexit on the risks identified above and believes that whilst IP risk will remain largely unaffected, there may be an impact in the future regarding the Group's ability to attract and retain highly skilled individuals. The Group is alert to and continuously reviewing this potential risk and
	formulating its response at the appropriate time.

By order of the Board

**Mike Inglis** Chairman 11 July 2017 Graeme Purdy CEO

# BOARD OF DIRECTORS

14



MIKE INGLIS Chairman (independent)



**GRAEME PURDY** Chief Executive Officer



**PROF. BRIAN HAYDEN** Chief Scientific Officer



**STEPHEN BOYDELL** Finance Director

Mike Inglis was appointed a Non-Executive Director of Ilika in July 2015 and Chairman in September 2015. He is currently a Non-Executive Director of Advanced Micro Devices Inc and as of 1 September 2015 of BT plc. Mike is also a member of the BT Technology Committee.

Formerly, Mike was a Director and member of the **Executive of ARM Holdings** for over a decade, serving as Chief Commercial Officer until the end of March 2013, having previously been EVP & GM Processor **Division and EVP Sales** and Marketing. Before joining ARM, he worked in management consultancy with AT Kearney and held a number of senior operational and marketing positions at Motorola. Mike has previously worked in semi-conductor sales, marketing, engineering and consultancy with Texas Instruments, Fairchild and BIS Macintosh and gained his initial industrial experience with GEC Telecommunications. He is a Chartered Engineer and a Chartered Marketer.

Graeme was appointed to head-up Ilika from the beginning of May 2004, just before completion of the Company's seed round of funding. He led the Company through two successful rounds of venture funding before floating the Company on AIM in 2010.

Prior to joining Ilika, Graeme was Chief Operating Officer of a high-technology company in the Netherlands and before that worked internationally in a variety of technical and commercial roles for Shell. Graeme holds a Master's degree in Chemical Engineering from Cambridge and an MBA from INSEAD business school in France. Graeme is a Chartered Engineer and a Sainsbury Management Fellow.

Brian is a founder of Ilika and holds the Executive role of Chief Scientific Officer. He is also professor of Physical Chemistry at the University of Southampton, a Fellow of the Royal Society of Chemistry, Fellow of the Institute of Physics and a member of the International Editorial Board of Surface Science.

Brian is a pioneer of surface science with a strong track record in running successful industrial collaborations and has published in excess of 100 papers in the fields of surface science, surface electrochemistry and fundamental aspects of heterogeneous catalysis and electro-catalysis.

He is also the author of over 12 active patents, including new catalysts and materials for lowtemperature fuel cells and solid-state li-ion batteries. in 1996, Stephen held a number of acquisition, treasury and Group reporting roles at both Hays plc, a diversified commercial, logistics and personnel group, and then AGI Media, a global creative packaging group. He then become Finance Director of Healthy Direct, a successful Guernsey-based group of companies, producing and supplying vitamins and supplements to the UK market. He was instrumental in the restructuring of that Group and its subsequent trade sale to a competitor. He joined Ilika in 2009 as Finance Director and Company Secretary.

Having qualified with Deloittes

Stephen studied Economics at Nottingham University and is a Fellow of the Institute of Chartered Accountants.





**PROF. KEITH JACKSON** 

Non-Executive Director

**CLARE SPOTTISWOODE CBE** Non-Executive Director

Clare's career started as an economist with the Treasury before establishing her own software company.

She is perhaps best known for her role as Director General of Ofgas between 1993 and 1998, where she oversaw the transformation of the gas industry from a monopoly, which controlled the whole gas supply chain, into a deregulated, competitive industry.

Clare was a commissioner on the Independent Commission on Banking Chaired by John Vickers, and currently chairs Gas Strategies Group Limited and Flowgroup plc. She is also a Non-Executive Director of G4S plc and EnQuest plc. Awarded a CBE for services to industry in 1999, she holds degrees from Cambridge and Yale Universities and has an honorary doctorate from Brunel.

PROF. SIR WILLIAM WAKEHAM Non-Executive Director

Prof. Sir William Wakeham retired as Vice-Chancellor of the University of Southampton in September 2009. He studied Physics at Exeter University at both undergraduate and doctoral level.

He is a Fellow, Senior Vice-President and International Secretary of the Royal Academy of Engineering, a Fellow of the Institution of Chemical Engineers, the Institution of Engineering and Technology, the Institute of Physics and the Portuguese Academy of Engineering. He is a Visiting Professor at Imperial College London, Exeter and Lisbon, Chair of Exeter Science Park Limited and Trustee of Royal Anniversary Trust.

He was knighted in 2009 for services to Chemical Engineering and Higher Education. Keith has had a wide-ranging and successful career in companies varying from start-ups to multinationals. He founded and grew an automotive control systems company whose engine control systems are used on millions of vehicles around the world. Following the sale of the Company to a major car company he joined Rolls-Royce plc, where he worked as Chief Technology Officer in the electrical power and control systems group.

Keith is Chief Technology Officer at Meggitt PLC, a global aerospace and energy components and systems company, where he is responsible for the technology strategy and research and technology. He is also actively involved on talent development at Meggitt through its Fellowship and graduate programmes.

Keith is a Fellow of the Society of Automotive Engineers, a Rolls-Royce Engineering Fellow and a visiting Professor at Sheffield University. He is a graduate from University College London.

### **DIRECTORS' REPORT**

#### **Directors**

The Directors who served on the Board of Ilika during the year and to the date of this report were as follows:

#### Executive

Mr. S. Boydell (FD and Company Secretary) Prof. B. E. Hayden (CSO) Mr. G. Purdy (CEO)

#### **Non-Executive**

Mr. M. Inglis (Chairman) Ms. C. Spottiswoode CBE Prof. Sir W. Wakeham (Senior Independent Director) Prof. K. Jackson

#### **Research and development costs**

In accordance with the policy outlined in note 1, the Group incurred research and development expenditure of £2,110,843 in the year (2016: £2,057,966). Commentary on the major activities is given in the Strategic Report.

#### **Financial instruments**

The use of financial instruments and financial risk management policies is covered in the Strategic Report and also in note 13 of the financial statements.

#### **Future developments**

Information on the future developments of the business are included in the Strategic Report on page 2.

#### Dividends

The Directors do not recommend the payment of a dividend.

#### **Directors' interests in ordinary shares**

The Directors, who held office at 30 April 2017, had the following interests in the Ordinary Shares of the Company:

	Number of Shares		
	1 May 2016	30 April 2017	
G. Purdy C. Spottiswoode S. Boydell M. Inglis W. Wakeham K. Jackson B. Hayden <sup>1</sup>	589,427 45,454 9,090 65,000 - - -	609,427 45,454 9,090 115,000 20,000 20,000	

1 B. Hayden had an interest in Preference Shares of the Company amounting to 426,300 at 1 May 2016 and at 30 April 2017.

Between 30 April 2017 and the date of this report, there has been no change in the interests of Directors in Shares as disclosed in this report.

#### **Substantial Shareholdings**

On 28 June 2017 the Company had been notified of the following holdings of more than 3 percent or more of the issued Share capital of the Company.

Shareholder	Number of Ordinary Shares	Percent Shareholding
Henderson Global	11,300,000	14.4
Charles Stanley Group plc	8,117,094	10.4
Ruffer LLP	6,715,999	8.6
IP Group plc	6,358,779	8.1
Baillie Gifford & Co.	5,905,706	7.5
Parkwalk Advisors	5,300,000	6.8
Richard Griffiths	2,574,836	3.3
Southampton Asset		
Management	2,349,900	3.0

#### Post balance sheet events

There are no significant post balance sheet events from 30 April 2017 to the signing of this report.

#### Auditors

All the current Directors have taken all the steps that they ought to have taken to make themselves aware of any information needed by the Company's auditors for the purposes of their audit and to establish that the auditors are aware of that information. The Directors are not aware of any relevant audit information of which the auditors are unaware.

A resolution to reappoint BDO LLP will be proposed at the next Annual General Meeting.

By order of the board

#### Steve Boydell Company Secretary

### DIRECTORS' REMUNERATION REPORT

#### **Remuneration Committee**

The Group's remuneration policy is the responsibility of the Remuneration Committee (the 'Committee'). The terms of reference of the Committee are outlined in the Corporate Governance Statement on page 21. The Committee members are Mike Inglis (Chairman), Clare Spottiswoode, Prof. Keith Jackson and Prof. Sir William Wakeham, all of whom are independent Non-Executive Directors.

The Chief Executive Officer and certain Executives may be invited to attend Committee meetings to assist with its deliberations, but no Executive is present when their own remuneration is being discussed.

### **Remuneration policy**

#### (i) Executive remuneration

The Committee has a duty to establish a remuneration policy which will enable it to attract and retain individuals of the highest calibre to run the Group. Its policy is to ensure that the Executive remuneration packages of Executive Directors and the fee of the Chairman are appropriate, given performance, scale of responsibility, experience, and consideration of the remuneration packages for similar Executive positions in companies it considers to be comparable. Packages are structured to motivate Executives to achieve the highest level of performance in line with the best interests of shareholders. A significant proportion of the total remuneration package, in the form of bonus and share options, is performance-driven and has been constructed following consultation with major shareholders.

#### **Components of remuneration**

Component	Purpose and link to strategy	Operation	Performance metrics
Base salary	To attract and retain talent.	Reflecting individual's role, experience and performance. Base salaries are reviewed annually in January.	Take into account Group and individual performance, external benchmark information and internal relativities.
Benefits and pension	To offer market- competitive package.	Contribution to the Executive Director's individual money purchase scheme (at between 8 percent and 10 percent of base salary) and critical illness cover.	n/a.
Short-term incentive plan – annual performance related bonus	Rewards the achievement of short-term financial and strategic project milestones.	Maximum bonus of base salary: 100 percent CEO, 60 percent CSO and 40 percent CFO. 50 percent of the bonus is payable in cash and 50 percent is deferred into Shares (using nominal cost options) for one year, subject to continued employment.	Delivery of exceptional performance against a series of financial, commercial and technology objectives.
Long-term incentive plan – restricted share unit awards	Incentivise, retain and reward the Executive Directors for successfully taking the Company through the next stage of its growth.	Ilika plc Long Term Incentive Plan 2015 (the 'LTIP'), was adopted by Shareholders at the 2015 AGM. Single awards of Share options with an exercise price of the nominal value of the Shares were made which will vest after 3 years.	Awards vest to the extent that challenging Share price targets have been met.
Shareholding guidelines	To increase Shareholder alignment.	100 percent of the net of tax Share awards which vest must be retained until the following guidelines are met: CEO 300 percent of salary. CSO 250 percent of salary. CFO 150 percent of salary.	n/a.

# DIRECTORS' REMUNERATION REPORT

CONTINUED

#### (ii) Chairman and Non-Executive Director remuneration

The Chairman, Mr. Inglis, receives a fixed fee of £65,975 p.a.. Clare Spottiswoode, Prof. Sir William Wakeham and Prof. Keith Jackson received a fixed fee of £32,988 p.a.. The fixed fee covers preparation for and attendance at meetings of the full Board and Committees thereof. The Chairman and the Executive Directors are responsible for setting the level of Non-Executive remuneration. The Non-Executive Directors are also reimbursed for all reasonable expenses incurred in attending meetings. All remuneration policies will be reviewed regularly to maintain adherence with best market practice as appropriate.

#### **Directors' remuneration**

The aggregate remuneration received by Directors who served during the year ended 30 April 2017 and 30 April 2016 was as follows:

	Basic salary £	Benefits- in-kind £	Bonus £	Total short- term benefits £	Pension £	Total £
Year to 30 April 2017						
G. Purdy	191,000	615	50,250	241,865	30,100	271,965
S. Boydell	123,429	399	13,043	136,871	17,434	154,305
B. Hayden <sup>1</sup>	64,320		19,372	83,692	-	83,692
M. Inglis	65,325	-	-	65,325	-	65,325
K. Jackson	32,662	-	-	32,662	-	32,662
W. Wakeham	32,662	-	-	32,662	-	32,662
C. Spottiswoode	32,662	-	-	32,662	-	32,662
	542,060	1,014	82,665	625,739	47,534	673,273
Veer to 70 April 2015						
Year to 30 April 2015	100.000	C71	70.000	220 671	70.000	
G. Purdy S. Boydell	190,000 120,260	671 423	30,000 10,181	220,671 130,864	30,000 17,181	250,671 148,045
B. Hayden <sup>1</sup>	64,000	425	16,095	80,095	17,101	80,095
M. Inglis	54,000	_	10,095	54,167	_	54,167
J. Boyer	25,500		_	25,500	-	25,500
K. Jackson	32,500	_	_	32,500	-	32,500
W. Wakeham	32,500		-	32,500	-	32,500
C. Spottiswoode	32,500	_	_	32,500	_	32,500
	551,427	1,094	56,276	608,797	47,181	655,978

1 B. Hayden is employed by the University of Southampton. The amounts disclosed in the table above relate to payments made directly to B. Hayden. The University of Southampton recharged employment costs of £72,859 to the Company in the year in respect of B. Hayden (2016: £63,171).

Benefits-in-kind include critical illness cover.

#### **Share options**

The Share options of the Directors are set out below:

	2016 Number	2017 Number <sup>1</sup>	Exercise Price	Expiry date	Performance conditions
Unapproved					
G. Purdy	136,200	136,200	80p	July 2017	n/a
G. Purdy	1,050,000	1,050,000	51p	May 2020	n/a
G. Purdy <sup>2</sup>	872,727	872,727	1p	September 2025	See note 4
B. Hayden	59,300	59,300	80p	July 2017	n/a
B. Hayden	525,000	525,000	51p	May 2020	n/a
B. Hayden	177,900	177,900	81.5p	February 2025	See note 4
B. Hayden <sup>2</sup>	527,272	527,272	1p	September 2025	See note 4
S. Boydell	117,600	117,600	51p	May 2020	n/a
S. Boydell <sup>2</sup>	274,909	274,909	1p	September 2025	See note 4
W. Wakeham	65,100	65,100	51p	May 2020	n/a
C. Spottiswoode	50,100	50,100	51p	May 2020	n/a
M. Inglis <sup>3</sup>	120,000	120,000	68.75p	September 2025	See note 4
K. Jackson <sup>3</sup>	40,000	40,000	68.75p	September 2025	See note 4
Approved					
G. Purdy	26,500	26,500	80p	May 2017	n/a
G. Purdy	245,300	245,300	81.5p	February 2025	See note 4
S. Boydell	90,000	90,000	80p	December 2019	n/a
S. Boydell	154,600	154,600	81.5p	February 2025	See note 4

1 There was no movement in the Share options of the Directors in the year.

2 Shareholders' approval to adopt and establish the Ilika plc LTIP was received at the AGM in September 2015.

3 Shareholders' approval to grant unapproved Share options to the Non-Executive Directors Mike Inglis and Prof. Keith Jackson was received at the AGM in September 2015.

4 These awards will vest on the achievement of the following Share price targets, assessed over a 3-year performance period:

(a) Less than 50 percent growth in Share price - no vesting.

(b) 50 percent growth in Share price - 25 percent of the Shares subject to award will vest.

(c) 100 percent growth in Share price - 75 percent of the Shares subject to award will vest.

(d) 200 percent growth in Share price - 100 percent of the Shares subject to award will vest.

Awards will vest between points (b) and (c) and between (c) and (d) on a straight-line basis.

Share-based payment charge attributable to Directors in the year was £428,587 (2016: £267,301).

During the year, the Committee received independent advice on executive remuneration matters from FIT Remuneration Consultants LLP. FIT received £7,099 in fees for these services.

#### Mike Inglis

**Chairman of the Remuneration Committee** 

### STATEMENT OF DIRECTORS' RESPONSIBILITIES

IN RESPECT OF THE ANNUAL REPORT AND THE FINANCIAL STATEMENTS

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors have elected to prepare the Group and Company financial statements in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the European Union. Under Company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss of the Group and Company for that period. The Directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market ('AIM').

In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with IFRSs as adopted by the European Union, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

#### Website publication

The Directors are responsible for ensuring the Annual Report and the financial statements are made available on a website. Financial statements are published on the Group's website in accordance with legislation in the UK governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the Group's website is the responsibility of the Directors. The Directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

#### **Going concern**

The Directors have prepared and reviewed financial forecasts. After due consideration of these forecasts and current cash resources, the Directors consider that the Company and the Group have adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least 12 months from the date of this report), and for this reason the financial statements have been prepared on a going concern basis.

By order of the Board

Graeme Purdy Chief Executive 11 July 2017

### **CORPORATE GOVERNANCE STATEMENT**

#### **Board of Directors**

The Board of Directors (the 'Board') consists of a Non-Executive Chairman, 3 Executive Directors and 3 Non-Executive Directors.

The responsibilities of the Non-Executive Chairman and the Chief Executive Officer are clearly divided. The Chairman is responsible for overseeing the formulation of the overall strategy of the Company, the running of the Board, ensuring that no individual or group dominates the Board's decision making and ensuring that the Non-Executive Directors are properly briefed on matters. Prior to each Board meeting, Directors are sent an agenda and Board papers for each agenda item to be discussed. Additional information is provided when requested by the Board or individual Directors.

The Chief Executive Officer has the responsibility for implementing the strategy of the Board and managing the day-to-day business activities of the Group through his Chairmanship of the Executive Committee.

The Non-Executive Directors bring relevant experience from different backgrounds and receive a fixed fee for their services and reimbursement of reasonable expenses incurred in attending meetings.

The Board retains full and effective control of the Group. This includes responsibility for determining the Group's strategy and for approving budgets and business plans to fulfil this strategy. The full Board ordinarily meets bi-monthly.

The Company Secretary is responsible to the Board for ensuring that Board procedures are followed and that the applicable rules and regulations are complied with. All Directors have access to the advice and services of the Company Secretary, and independent professional advice, if required, at the Company's expense. Removal of the Company Secretary would be a matter for the Board.

#### **Performance evaluation**

The Board has a process for evaluation of its own performance, which is carried out annually.

#### **Board Committees**

As appropriate, the Board has delegated certain responsibilities to Board Committees as follows:

#### i) Audit Committee

The Audit Committee currently comprises Clare Spottiswoode CBE (Chairman), Prof. Sir William Wakeham (Senior Independent Director), Prof. Keith Jackson and Mike Inglis.

The Committee monitors the integrity of the Group's financial statements and the effectiveness of the audit process. The Committee reviews accounting policies and material accounting judgements. The Committee also reviews, and reports on, reports from the Group's auditors relating to the Group's accounting controls. It makes recommendations to the Board on the appointment of auditors and the audit fee. It has unrestricted access to the Group's auditors. The Committee keeps under review the nature and extent of non-audit services provided by the external auditors in order to ensure that objectivity and independence are maintained.

#### ii) Remuneration Committee

The Remuneration Committee comprised Mike Inglis (Chairman), Clare Spottiswoode, CBE Prof. Keith Jackson and Prof. Sir William Wakeham (Senior Independent Director).

The Committee is responsible for making recommendations to the Board on remuneration policy for Executive Directors and the terms of their service contracts, with the aim of ensuring that their remuneration, including any share options and other awards, is based on their own performance and that of the Group generally.

#### iii) Nomination Committee

The Nomination Committee comprised Mike Inglis (Chairman), Prof. Sir William Wakeham (Senior Independent Director), Prof. Keith Jackson and Clare Spottiswoode CBE.

It is responsible for providing a formal, rigorous and transparent procedure for the appointment of new Directors to the Board and reviewing the performance of the Board each year.

## CORPORATE GOVERNANCE STATEMENT

CONTINUED

#### **Attendance at Board meetings and Committees**

The Directors attended the following Board and Committees meetings during the year:

Attendance	Board <sup>1</sup>	Audit	Nomination	Remuneration
Mr. S. Boydell	8/8	_	-	-
Prof. B. E. Hayden	7/8	-	-	-
Mr. M. Inglis	6/8	2/2	1/1	2/2
Mr. G. Purdy	8/8	-	-	-
Ms. C. Spottiswoode	7/8	2/2	1/1	2/2
Prof. Sir W. Wakeham	7/8	2/2	1/1	2/2
Prof. K. Jackson	7/8	2/2	1/1	2/2

1 One meeting in the year was to formally approve the allotment of the Placing and required only Mr. G Purdy and Mr. S Boydell to attend.

#### **Risk management and internal control**

The Board is responsible for the systems of internal control and for reviewing their effectiveness. The internal controls are designed to manage rather than eliminate risk and provide reasonable but not absolute assurance against material misstatement or loss. The Audit Committee reviews the effectiveness of these systems primarily by discussion with the external auditor and by considering the risks potentially affecting the Group.

The Group does not consider it necessary to have an internal audit function due to the small size of the administration function. Instead there is a detailed Director review and authorisation of transactions. The annual audit by the Group auditor, which tests a sample of transactions, did not highlight any significant system improvements in order to reduce risk.

The Group maintains appropriate insurance cover in respect of actions taken against the Executive Directors because of their roles, as well as against material loss or claims of the Group. The insured values and type of cover are comprehensively reviewed on a periodic basis.

By order of the Board

Mike Inglis Chairman 11 July 2017

### **INDEPENDENT AUDITOR'S REPORT**

TO THE MEMBERS OF ILIKA PLC

We have audited the financial statements of Ilika plc for the year ended 30 April 2017 which comprise the consolidated statement of comprehensive income, the consolidated balance sheet, the consolidated cash flow statement, the consolidated statement of changes in equity, the Company balance sheet, the Company cash flow statement, the Company statement of changes in equity and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards ('IFRSs') as adopted by the European Union and, as regards the Parent Company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

#### **Respective responsibilities of Directors and auditor**

As explained more fully in the Statement of Directors' responsibilities, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Financial Reporting Council's ('FRC's') Ethical Standards for Auditors.

#### Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the FRC's website at www.frc.org.uk/auditscopeukprivate.

#### **Opinion on financial statements**

#### In our opinion:

- the financial statements give a true and fair view of the state of the Group's and the Parent Company's affairs as at 30 April 2017 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

#### Opinion on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
   the Strategic Report and Directors' Report have
- the Strategic Report and Directors' Report have been prepared in accordance with applicable legal requirements.

#### Matters on which we are required to report by exception

In the light of the knowledge and understanding of the Group and the Parent Company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic Report or the Directors' Report.

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

#### Malcolm Thixton (Senior Statutory Auditor)

For and on behalf of BDO LLP, statutory auditor Southampton United Kingdom

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

		Year ended	d 30 April
	Notes	2017 £	2016 £
Turnover	2	1,050,667	605,924
Revenue UK grants		311,946 738,721	150,931 454,993
Cost of sales		(574,272)	(336,281)
Gross profit Administrative expenses		476,395	269,643
Administrative expenses Share-based payment charge		(3,863,411) (547,347)	(3,776,950) (352,291)
		4,410,758	4,129,241
Operating loss Income from short-term deposits	3	(3,934,363) 23,844	(3,859,598) 30,734
Loss before tax Taxation	5	(3,910,519) 370,274	(3,828,864) 357,896
Loss for period/total comprehensive income attributable to owners of Parent		(3,540,245)	(3,470,968)
<b>Loss per Share from continuing operations</b> Basic Diluted	6	(4.84)p (4.84)p	(5.23)p (5.23)p

## **CONSOLIDATED BALANCE SHEET**

COMPANY NUMBER 7187804

		As at 30	April	
	Notes	2017 £	2016 £	
ASSETS		_	_	
Non-current assets				
Intangible assets	7	2,581	15,595	
Property, plant and equipment	8	451,560	399,324	
Total non-current assets		454,141	414,919	
Current assets				
Trade and other receivables	9	1,116,367	517,695	
Current tax receivable	5	330,000	375,000	
Other financial assets - bank deposits	10	2,900,000	-	
Cash and cash equivalents	10	2,510,884	2,997,412	
Total current assets		6,857,251	3,890,107	
Total assets		7,311,392	4,305,026	
Issued capital and reserves attributable to owners of Parent				
Issued share capital	14	789,911	663.911	
Share premium	± ·	23,179,756	17,470,417	
Capital restructuring reserve		6,486,077	6,486,077	
Retained earnings		(24,206,405)	(21,213,507)	
Total equity		6,249,339	3,406,898	
LIABILITIES				
Current liabilities				
Trade and other payables	11	912,053	748,128	
Provisions	12	150,000	150,000	
Total liabilities		1,062,053	898,128	
Total equity and liabilities		7,311,392	4,305,026	

The notes on pages 28 to 38 form part of these financial statements.

These financial statements were approved and authorised for issue by the Board of Directors on 11 July 2017.

Mr. M Inglis Chairman

# CONSOLIDATED CASH FLOW STATEMENT

	Year ende	d 30 April
	2017 £	2016 £
Cash flows from operating activities		
Loss before taxation continuing operations Adjustments for:	(3,910,519)	(3,828,864)
Amortisation	13,014	14,524
Depreciation	192,331	257,274
Equity-settled share-based payments	547,347	352,291
(Profit)/loss on disposal of plant, property and equipment	(30,783)	1,049
Financial income	(23,844)	(30,734)
Operating cash flow before changes in working capital, interest and taxes	(3,212,454)	(3,234,460)
Increase in trade and other receivables	(598,672)	(26,432)
Increase in trade and other payables	163,925	19,257
Cash utilised by operations	(3,647,201)	(3,241,635)
Tax received	415,274	287,018
Net cash flow used in operating activities	(3,231,927)	(2,954,617)
Cash flows from investing activities		
Interest received	23,844	36,456
Sale of property plant and equipment	40,129	-
Purchase of property, plant and equipment	(253,913)	(96,949)
(Increase)/decrease in other financial assets	(2,900,000)	528,349
Net cash (used in)/from investing activities	(3,089,940)	467,856
Cash flows from financing activities		
Proceeds from issuance of Ordinary Share capital	6,300,000	5,138
Cost of Share issue	(464,661)	
Net cash from financing activities	5,835,339	5,138
Net decrease in each and each equivalents	(496 520)	(2 401 627)
<b>Net decrease in cash and cash equivalents</b> Cash and cash equivalents at the start of the period	(486,528) 2,997,412	(2,481,623) 5,479,035
Cash and cash equivalents at the end of the period	2,510,884	2,997,412

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

As at 30 April 2017	789,911	23,179,756	6,486,077	(24,206,405)	6,249,339
Loss and total comprehensive income	-	-	-	(3,540,245)	(3,540,245)
Cost of Share issue	-	(464,661)	-	-	(464,661)
Issue of Shares	126,000	6,174,000	-	-	6,300,000
Share-based payment	_	-	-	547,347	547,347
As at 30 April 2016	663,911	17,470,417	6,486,077	(21,213,507)	3,406,898
Loss and total comprehensive income	-	-	-	(3,470,968)	(3,470,968)
Issue of Shares	163	4,975	-	-	5,138
Share-based payment	-	-	-	352,291	352,291
As at 30 April 2015	663,748	17,465,442	6,486,077	(18,094,830)	6,520,437
	Share capital £	Share premium account £	Capital restructuring reserve £	Retained earnings £	Total attributable to equity holders of Parent £

#### 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.

#### **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.

#### **Retained earnings**

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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

#### 1 Accounting policies Basis of preparation

These financial statements have been prepared in accordance with International Financial Reporting Standards ('IFRSs') adopted by the European Union. The principal accounting policies adopted in the preparation of the consolidated financial statements are set out below. The policies have been consistently applied to all of the years presented.

The individual financial statements of Ilika plc are shown on page 39 to 43.

#### **Basis of consolidation**

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company made up to the reporting date. The Company controls an investee if all three of the following elements are present: power over the investee; exposure to variable returns over the investee; and the ability of the investee to use its power to affect the variable returns. Control is reassessed whenever facts and circumstances indicate that there may be a change in any of these elements of control. All intra-Group transactions, balances, income and expenses are eliminated on consolidation.

#### **Going concern**

The financial statements have been prepared on a going concern basis, which assumes that the Company will have sufficient funds available to enable it to continue to trade for the foreseeable future. In making their assessment that this assumption is correct, the Directors have undertaken an in-depth review of the business, its current prospects and cash resources as set out below.

The Directors have prepared and reviewed financial forecasts. The Group meets its day-to-day working capital requirements through existing cash resources which, at 30 April 2017, amounted to £5,410,884. After due consideration of these forecasts and current cash resources, the Directors consider that the Company and the Group have adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least 12 months from the date of this Report), and for this reason the financial statements have been prepared on a going concern basis.

The Directors have also considered the likely sales, contracts and announcements that the Company anticipate being able to make over the coming months, the current Share price, levels of trading in the Company's Shares and past history of raising funds with the Company's brokers.

After taking account of all the above factors, the Directors believe that as the market becomes more aware of the Company' prospects and the scale of the opportunities that the Company's technologies create, the Company will continue to be able to raise any funds required to enable it to continue to trade and grow towards self-sufficiency.

#### **Changes in accounting policies**

#### (a) New standards, amendments to standards or interpretations adopted early

During the period ended 30 April 2017, there were no new or revised standards, amendments to standards or interpretations that have been adopted and affected the amounts reported in the financial statements.

#### (b) New standards, amendments to standards or interpretations not yet applied

The following standards, interpretations and amendments, which have not been applied in these financial statements and have an effective date commencing after 1 May 2017, will or may have an effect on the Group's future financial statements:

International Accounting Standards (IAS/IFRS)		Effective date for periods commencing
IFRS 15	Revenue from Contracts with Customers	1 January 2018

The Directors will assess the impact of IFRS 15, with particular focus on the recognition of revenue over the life of contracts and projects.

No other new standards or amendments are expected to have an effect on the Group.

#### Revenue

Revenue comprises the fair value for the sale of services, net of value added tax and is recognised as follows:

#### Sales of services

Sales of research and development services are recognised in the accounting period in which the services are rendered, by reference to completion of the specific transaction assessed on the basis of the actual service provided as a proportion of the total services to be provided.

#### Government grants

Grants that compensate the Group for expenses incurred are recognised in the income statement on a systematic basis in the same periods in which the expenses are recognised.

#### **Financial income**

Financial income is recognised in the income statement as it accrues, using the effective interest method.

#### Pension and other post-retirement benefits

Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due.

#### **Share-based payment transactions**

The Group issues equity-settled Share options to all employees. Equity-settled Share options are measured at fair value at the date of grant. The fair value determined at the grant date of the equity-settled Share options is expensed on a straight-line basis over the vesting period, based on the Group's estimate of Shares that will eventually vest and adjusted for the effect of non-market-based vesting conditions.

The fair value of non-market-based options granted by the Group is measured by use of the Black-Scholes pricing model, taking into account the following inputs: the exercise price of the option; the life of the option; the market price on the date of grant of the option; the expected volatility of the Share price; the dividends expected on the Shares; and the risk-free interest rate for the life of the option. The expected life used in the model has been adjusted, based on management's best estimate, for the effects of non-transferability, exercise restrictions and behavioural considerations.

#### **Research and development expenditure**

Research expenditure is recognised as an expense when it is incurred.

Development expenditure is recognised as an expense except that costs incurred on development projects are capitalised as intangible assets to the extent that such expenditure is expected to generate future economic benefits. Development expenditure is capitalised if, and only if, an entity within the Group can demonstrate all of the following:

- i. Its ability to measure reliably the expenditure attributable to the asset under development;
- ii. The product or process is technically and commercially feasible;
- iii. Its future economic benefits are probable;
- iv. Its ability to use or sell the developed asset;
- v. The availability of adequate technical, financial and other resources to complete the asset under development; and vi. Its intention is to use or sell the developed asset.

Prior to and during the year ended 30 April 2017, no development expenditure satisfied all of these conditions.

#### **Taxation**

Companies within the Group may be entitled to claim special tax allowances in relation to qualifying research and development expenditure (e.g. R&D tax credits). The Group accounts for such allowances as tax credits, which means that they are recognised when it is probable that the benefit will flow to the Group and that benefit can be reliably measured. R&D tax credits reduce current tax expense and, to the extent the amounts due in respect of them are not settled by the balance sheet date, reduce current tax payable. A deferred tax asset is recognised for unclaimed tax credits that are carried forward as deferred tax assets.

Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the reporting date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised.

#### **Foreign currency**

Transactions in foreign currencies are translated at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in profit or loss.

### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

#### 1 Accounting policies continued Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses. Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment.

Depreciation is charged to the statement of comprehensive income on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment less their estimated residual value. The estimated useful lives are as follows:

Leasehold improvements	lease term
Plant, machinery and equipment	3–5 years
Fixtures and fittings	3–5 years

#### Impairment

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated at the present value of the future expected cash flows associated with the impaired asset.

An impairment loss is recognised whenever the carrying amount of an asset exceeds its recoverable amount. Impairment losses are recognised in the profit and loss account.

#### Intangible assets

#### Computer software

Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortised to administrative expenses using the straight-line method over their estimated useful lives (1-3 years).

#### Intellectual property

Acquired intellectual property is included at cost and is amortised to administrative expenses on a straight-line basis over its useful economic life of 15 years.

#### **Financial instruments**

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument. The Group's financial assets are all classified as loans and receivables and carried at amortised cost. The Group's financial liabilities are all classified as 'other' liabilities which are carried at amortised cost. Cash and cash equivalents comprise cash balances and call deposits. Deposits of over 3 months' maturity, judged at inception, are classified as other financial assets.

#### Key sources of estimation and uncertainty

The preparation of the Group's financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses at the date of the Group's financial statements. The Group's estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Directors do not believe there to be any estimates or judgements that have a significant impact on the Group's financial statements.

#### 2 Segment reporting

The Group operates in one area of activity, namely the production, design and development of high-throughput methods of material synthesis, characterisation and screening. The Group has materials development programmes addressing a wide range of applications, including the solid state battery, aerospace alloys and electronic materials.

For management purposes, the Group is analysed by the geographical location of its customer base and Business Development Directors have been appointed to cover the Group's 3 territories of focus: Asia, North America and Europe.

	rear ended	rear ended 30 April	
Revenue	2017 £	2016 £	
Analysis by geographical market: By destination			
Asia	21,280	74,162	
Europe	-	23,355	
North America	197,818	7,702	
UK	831,569	500,705	
	1,050,667	605,924	

Veen ended 70 Annil

A number of customers individually account for more than 10 percent of the total turnover of the Group. The revenues from these companies are indicated below: Year ended 30 April

		Teal ended 50 April	
Revenue	2017 £	2016 £	
UK grants Customer 2	738,721	454,993	
Customer 2 Customers less than 10 percent	197,819 114,127	74,150 76,781	
	1,050,667	605,924	

3 Operating loss	Year ende	d 30 April
This is arrived at after charging:	2017 £	2016 £
Research and development expenditure in the year Depreciation Amortisation of intangible assets Auditor's remuneration:	2,110,843 192,331 13,014	2,057,966 257,274 14,524
Fees payable to the Group's auditor for the audit of the Group's accounts Fees payable to the Group's auditor for other services:	20,700	19,700
<ul> <li>The audit of the Group's subsidiaries</li> <li>All other services</li> <li>Operating lease rentals</li> <li>Share-based payment</li> </ul>	6,800 - 207,511 547,347	6,800 21,518 204,578 352,291

#### 4 Employees

The average number of employees during the year, including Executive Directors, was:

	Year ende	Year ended 30 April	
	2017 Number	2016 Number	
Administration Materials synthesis	6 32	8 27	
	38	35	

Staff costs for all employees, including Executive Directors, consist of:

Stan costs for an employees, including Executive Directors, consist of.	Year ende	d 30 April
	2017 £	2016 £
Wages and salaries Social security costs Share-based payment expense Pension costs	1,954,655 215,648 532,347 139,286	1,813,889 183,594 337,291 119,664
	2,841,936	2,454,438

The total remuneration of the Directors of the Group was as follows:

The total remuneration of the Directors of the Group was as follows:	Year ended	30 April
	2017 £	2016 £
Wages and salaries Pension costs	624,726 47,534	607,703 47,181
Directors' emoluments Social security costs Share-based payment expense	672,260 80,177 428,587	654,884 77,420 267,301
Key management personnel	1,181,024	999,605

The Directors represent key management personnel and further details are given in the Directors' remuneration report on pages 17 to 19.

### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

#### 5 Taxation

#### (a) Tax on loss from ordinary activities

There is no taxation charge due to the losses incurred by the Group during the year. The taxation credit represents R&D tax credit claims as follows:

		Teal ellueu 30 April	
	2017 £	2016 £	
Current tax on loss for the year Adjustments to prior period	330,000 40,274	329,473 28,423	
	370,274	357,896	

#### (b) Factors affecting current tax charge

The tax assessed on the loss on ordinary activities for the period is different to the standard rate of corporation tax in the UK of 20 percent (2016: 20 percent). The differences are reconciled below:

	2017 £	2016 £
Loss on ordinary activities before tax	(3,910,519)	(3,828,864)
Loss on ordinary activities before tax multiplied by the standard rate of corporation tax in the UK of 20 percent (2016: 20 percent) Effects of:	(778,975)	(765,773)
Expenses not deductible for corporation tax R&D relief	109,098 (289,726)	71,179 (329,473)
Origination of unrecognised tax losses Under provision in previous years	629,603 (40,274)	694,594 (28,423)
Total tax credit for the year	(370,274)	(357,896)

#### Unrecognised deferred taxation

There are tax losses available for carry forward against future trading profits of approximately £19,065,000 (2016: £17,009,000). A deferred tax asset in respect of these losses of approximately £3,240,000 (2016: £3,062,000) has not been recognised in the accounts, as the full utilisation of these losses in the foreseeable future is uncertain.

#### 6 Loss per Share

Earnings 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:

	Year ended 30 April	
	2017 Number	2016 Number
Weighted average number of Equity Shares	73,122,617	66,378,114
	£	£
Earnings, being loss after tax	(3,540,245)	(3,470,968)
	Pence	Pence
Loss per Share	(4.84)	(5.23)

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 would have the effect of reducing the loss per Ordinary Share and is therefore not dilutive. At 30 April 2017, there were 7,741,892 options outstanding (2016: 6,988,112) as detailed in notes 14 and 18.

#### 7 Intangible assets

	Software licences £	Intellectual property £	Total £
Cost			
As at 30 April 2015	54,365	75,000	129,365
Disposals	(8,072)	-	(8,072)
As at 30 April 2016	46,293	75,000	121,293
Disposals	(7,250)		(7,250)
As at 30 April 2017	39,043	75,000	121,293
Amortisation			
As at 30 April 2015	24,246	75,000	99,246
Provided for the year	14,524	-	14,524
Disposals	(8,072)	-	(8,072)
As at 30 April 2016	30,698	75,000	105,698
Provided for the year	13,014	-	13,014
Disposals	(7,250)		(7,250)
As at 30 April 2017	36,462	75,000	111,462
Net book value			
As at 30 April 2015	30,119	-	30,119
As at 30 April 2016	15,595	-	15,595
As at 30 April 2017	2,581	-	2,581

The amortisation charge of £13,014 (2016: £14,524) is included within administrative expenses.

### 8 Property, plant and equipment

	Leasehold improvements £	Plant, machinery and equipment £	Fixtures and fittings £	Total £
Cost As at 30 April 2015 Additions Disposals	567,500 - -	4,426,077 96,949 -	171,790 - (4,265)	5,165,367 96,949 (4,265)
<b>As at 30 April 2016</b> Additions Disposals	567,500 - -	4,523,026 253,172 (234,408)	167,525 741 (546)	5,258,051 253,913 (234,954)
As at 30 April 2017	567,500	4,541,790	167,720	5,277,010
Depreciation As at 30 April 2015 Provided for the year Disposals	567,500 - -	3,881,155 250,492 -	156,014 6,782 (3,216)	4,604,669 257,274 (3,216)
<b>As at 30 April 2016</b> Provided for the year Disposals	567,500 - -	4,131,647 187,591 (225,062)	159,580 4,740 (546)	4,858,727 192,331 (225,608)
As at 30 April 2017	567,500	4,094,176	163,774	4,825,450
Net book value				
As at 30 April 2015	-	544,922	15,776	560,698
As at 30 April 2016	-	391,379	7,945	399,324
As at 30 April 2017	-	447,614	3,946	451,560

There are no commitments for capital expenditure contracted but not provided for (2016: £nil).

### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

#### 9 Trade and other receivables

9 Trade and other receivables	As at 3	As at 30 April	
	2017 £	2016 £	
Trade receivables Prepayments Other receivables Accrued income	133,655 299,032 312,769 370,911	27,976 215,933 156,863 116,923	
	1,116,367	517,695	

The ageing of trade receivables is as follows:	As at 3	As at 30 April	
	2017 £	2016 £	
0-29 days 30-59 days	67,181 66,474	4,621 23,355	
	133,655	27,976	

Included in other receivables is an amount of £150,000 (2016: £75,000), which represents cash held in a separate bank account used as security against a bond provided by the Company's bankers (see note 12). The bond relates to the potential dilapidations costs due at the end of the Company's property lease.

#### 10 Cash and cash equivalents

10 Cash and cash equivalents	As at 30 April	
	2017 £	2016 £
Current bank accounts Short-term deposits with less than 3-months' maturity	238,371 2,272,513	125,018 2,872,394
	2,510,884	2,997,412

#### 11 Trade and other payables

11 Trade and other payables	As at 30	April
	2017 £	2016 £
Trade payables Other payables	308,635 28,454	197,117 14,654
Other taxes and social security costs Accruals	57,768 517,196	44,976 491,381
	912,053	748,128

The ageing of financial liabilities is as follows:

The ageing of financial liabilities is as follows:	As at 30	As at 30 April	
	2017 £	2016 £	
0-29 days 30-59 days 60-89 days 90+ days	562,725 163,854 3,010 124,696	390,618 61,039 21,495 230,000	
	854,285	703,152	

### **12 Provisions**

	Leasehold Dilapidations £
As at 1 May 2016 and at 30 April 2017	150,000

All provisions are due within one year.

Leasehold dilapidations relate to the estimated cost of returning a leasehold property to its original state at the end of the lease in accordance with the lease terms.

### 13 Financial instruments

The risks associated with financial instruments are set out below.

#### **Foreign currency risk**

The Group buys goods and services in currencies other than Sterling. The Group's non-Sterling liabilities and cash flows can be affected by movements in exchange rates. The Group has denominated some of it sales transactions in non-Sterling currencies and has entered into a forward exchange contract to mitigate this risk.

#### **Credit risk**

The Group's credit risk is attributable to its trade receivables and banking deposits. The Group places its deposits with reputable financial institutions to minimise credit risk. The maximum exposure to credit risk for each period is the amount disclosed above as total loans and receivables. For the periods above there were no trade receivables which were past due or impaired. Risk is further mitigated through the use of credit limits, but also through the nature of the customers, who, for the most part, are large multinationals.

#### **Liquidity risk**

The Group's policy is to maintain adequate cash resources to meet liabilities as they fall due. All Group payable balances fall due for payment within one year. Cash balances are placed on deposit for varying periods with reputable banking institutions to ensure there is limited risk of capital loss. The Group does not maintain an overdraft facility.

#### Interest rate risk

The main risk arising from the Group's financial instruments is interest rate risk. The Group placed deposits surplus to short-term working capital requirements with a variety of reputable UK-based banks. These balances are placed at floating rates of interest and deposits have maturities of 1-12 months. The Group's cash and short-term deposits are set out in note 11. Floating-rate financial assets comprise cash on deposit and cash at bank. Short-term deposits are placed with banks for periods of up to 12 months and are categorised as floating-rate financial assets. Contracts in place at 30 April 2017 had a weighted average period to maturity of 26 days (2016: 30 days) and a weighted average annualised rate of interest of 0.6 percent (2016: 0.7 percent).

### Interest rate risk sensitivity analysis

It is estimated that a change in base rate to zero would have increased the Group's loss before taxation for the year to 30 April 2017 by approximately £24,000 (2016: £31,000).

It is estimated that an increase in base rate by 1 percent would decrease the Group's loss before taxation for the year to 30 April 2017 by approximately £45,000 (2016: £42,000).

There is no difference between the book and fair value of financial assets and liabilities.

### **Capital management**

The primary aim of the Group's capital management is to safeguard the Group's ability to continue as a going concern, to support its businesses and maximise Shareholder value. The Group monitors its capital structure and makes adjustments as and when it is deemed necessary and appropriate to do so using such methods as the issuing of new Shares. At present all funding is raised by equity.

# 14 Share capital

14 Share capital	As at 30	April
	2017 £	2016 £
Authorised 78,402,710 Ordinary Shares of £0.01 each (2016: 65,802,710) 1,781,400 Convertible Preference Shares of £0.01 each	784,027 17,814	658,027 17,814
Allotted, called-up and fully paid 78,402,710 Ordinary Shares of £0.01 each (2016: 65,802,710) 588,400 Convertible Preference Shares of £0.01 each (2016: 588,400)	784,027 5,884	658,027 5,884
	789,911	663,911

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

# 14 Share capital continued Share Rights

The Ordinary Shares and Preference Shares rank pari passu in all respects other than:

- The profits which the Group may determine to distribute in respect of any financial period shall be distributed only among the holders of the Ordinary Shares. The Preference Shares shall not entitle the holders of them to any share in such distributions;
- on a return of capital or assets on a liquidation, reduction of capital or otherwise the surplus assets of the Group remaining after payment of its obligations shall be applied:
  - First, in paying to the holders of the Preference Shares the amount paid thereon, being the amount equal to the par value of the Preference Shares excluding any premium; and
  - Secondly, the balance of such surplus assets shall belong to and be distributed amongst the holders of the Ordinary Shares.

The Preference Shareholders have the right, at any time, to convert the Preference Shares held to the same number of Ordinary Shares.

On 18 October 2016 12,600,000 Ordinary Shares of £0.01 each were issued for a total consideration of £6,300,000 and total costs incurred were £464,661.

### Share options and warrants

Employee-related Share options are disclosed in note 18. In addition to these, there were 107,300 non-employee Share options over Ordinary Shares of £0.01 at the year end.

# **15 Operating leases**

The total future minimum rent payable under non-cancellable operating leases is as follows:

	-	E
Property leases which expire: Within one year	97,143	_

# **16 Pensions**

The Group operates a defined contribution Group personal pension scheme. The pension cost charge for the period represents contributions payable by the Group to the scheme and amounted to £139,286 (2016: £119,664).

# 17 Related party transactions

The Directors consider that no one party controls the Group.

Details of key management personnel and their compensation are given in note 4 and in the Directors' remuneration report on pages 17 to 19.

# 18 Share-based payments expense and Share options

Share-based payment expense

The Group has incentivised and motivated staff through the grant of Share options under the Enterprise Management Incentive ('EMI') scheme and through unapproved Share options.

At 30 April 2017, the following options, whose fair values have been fully charged to the consolidated statement of total comprehensive income, were outstanding:

Approved Share options:

Date of grant	Number of Shares	Period of option	Exercise price per Share
14 May 2007	156,100	10 years	£0.80
15 January 2008	22,400	10 years	£1.00
2 February 2009	58,000	10 years	£0.80
1 December 2009	90,000	10 years	£0.80
14 May 2010	26,100	10 years	£0.51
1 February 2012	39,634	10 years	£0.53

Unapproved Share options:

Date of grant	Number of	Period	Exercise price
	Shares	of option	per Share
11 July 2007	195,500	10 years	£0.80
11 November 2008	40,000	10 years	£2.4283
14 May 2010	1,897,800	10 years	£0.51

# **Black-Scholes valuation**

Diack-Scholes valuation	Weighted average exercise price		Number	
	2017 £	2016 £	2017	2016
Outstanding:				
At start of the period	0.5021	0.8341	4,956,912	2,188,148
Granted in the period	0.4850	0.2567	906,500	2,867,908
Exercised in the period	-	0.2732	-	(13,394)
Lapsed in the period	0.7384	0.8032	(152,720)	(85,750)
At the end of the period	0.4930	0.5021	5,710,692	4,956,912

The exercise price of options outstanding at the end of the period ranged between £0.01 and £2.4283 and their weighted average contractual life was 8.1 years (2016: 8.8 years). These Share options are exercisable and must be exercised within 10 years from the date of grant.

Stochastic valuation	Weighted avera	Weighted average exercise price		Number	
	2017 £	2016 £	2017	2016	
Outstanding: At start of the period	0.51	0.51	1,923,900	2,989,300	
Exercised in the period	-	0.51	-	(2,900)	
Lapsed during the period	-	0.51	-	(1,062,500)	
At the end of the period	0.51	0.51	1,923,900	1,923,900	

The exercise price of options outstanding at the end of the period was £0.51 (2016: £0.51) and their weighted average contractual life was 4 years (2016: 5 years).

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

# 18 Share-based payments expense and Share options continued

Ilika plc Executive Share Option Scheme 2010

At 30 April 2017 the following Share options were outstanding in respect of the Ilika plc Executive Share Option Scheme 2010:

Date of grant	Number of	Period	Exercise price
	Shares	of option	per Share
14 May 2010	26,100	10 years	£0.51
1 February 2012	39,634	10 years	£0.53
26 February 2015	1,208,750	10 years	£0.815
22 March 2016	981,000	10 years	£0.59
16 March 2017	906,500	10 years	£0.485

Members of staff in the Group have options in respect of Ordinary Shares in Ilika plc, which are conditional upon the achievement of a series of financial and commercial milestones.

152,720 options lapsed in the year.

## Ilika plc unapproved Share options

At 30 April 2017 the following Share options were outstanding in respect of Ilika plc unapproved Share options:

Date of grant	Number of Shares	Period of option	Exercise price per Share
11 July 2007	195,500	10 years	£0.80
11 November 2008	40,000	10 years	£2.4283
14 May 2010	1,897,800	10 years	£0.51
26 February 2015	177,900	10 years	£0.815
30 September 2015	160,000	10 years	£0.688
30 September 2015	1,674,908	10 years	£0.01

No options lapsed or were exercised in the year.

There are 2,525,534 options which were capable of being exercised as at 30 April 2017.

	2017 £	2016 £
Share-based payment expense Black-Scholes calculation	547,347	352,291

# COMPANY BALANCE SHEET OF ILIKA PLC

COMPANY NUMBER 7187804

		As at 3	30 April
	Notes	2017 £	2016 £
ASSETS			
Non-current assets			
Investments in subsidiary undertaking	21	121,339	121,339
Amount due from subsidiary undertaking	23	24,108,345	18,234,671
		24,229,684	18,356,010
Current assets			
Trade and other receivables	22	13,646	2,518
Total assets		24,243,330	18,358,528
Equity			
Issued Share capital		789,911	663,911
Share premium		23,158,967	17,449,628
Retained earnings		146,304	108,683
		24,095,182	18,222,222
LIABILITIES			
Current liabilities			
Trade and other payables	24	148,148	136,306
Total liabilities		148,148	136,306
Total equity and liabilities		24,243,330	18,358,528

No profit and loss account is presented for the Company as permitted by Section 408 of the Companies Act 2006. The Company's loss for the year was £509,726 (2016: loss of £318,884).

The notes on pages 42 to 43 form part of these financial statements.

These financial statements were approved and authorised for issue by the Board of Directors on 11 July 2017.

Mr. M Inglis

Chairman

# COMPANY CASH FLOW STATEMENT

	As at 30	April
	2017 £	2016 £
Cash flows from operating activities Loss before tax Adjustments for:	(509,726)	(318,884)
Equity-settled Share-based payments	547,347	352,291
Operating cash flow before changes in working capital, interest and taxes (Increase)/decrease in trade and other receivables Increase in trade and other payables Increase in amounts due from subsidiary undertaking	37,621 (11,127) 11,842 (5,873,675)	33,407 3,699 2,955 (45,199)
Cash utilised by operations	(5,835,339)	(5,138)
<b>Cash flows from financing activities</b> Proceeds from issuance of Ordinary Share capital Costs of Share issue	6,300,000 (464,661)	5,138
Net cash from financing activities	5,835,339	5,138
Net increase in cash and cash equivalents Cash and cash equivalents at the start of the period	-	-
Cash and cash equivalents at the end of the period	-	-

# COMPANY STATEMENT OF CHANGES IN EQUITY

	Share capital £	Share premium account £	Retained earnings £	Total attributable to equity holders £
<b>As at 30 April 2015</b> Issue of Shares Share-based payment Profit and total comprehensive income	663,748 163 -	17,444,653 4,975 - -	75,276 - 352,291 (318,884)	18,183,677 5,138 352,291 (318,884)
<b>As at 30 April 2016</b> Issue of Shares Costs of issue Share-based payment Profit and total comprehensive income	663,911 126,000 - - -	17,449,628 6,174,000 (464,661) - -	108,683 - - 547,347 (509,726)	18,222,222 6,300,000 (464,661) 547,347 (509,726)
As at 30 April 2017	789,911	23,158,967	146,304	24,095,182

# 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 Company since inception of the business.

# NOTES TO THE COMPANY FINANCIAL STATEMENTS

### **19 Accounting polices Basis of preparation**

These financial statements have been prepared in accordance with International Financial Reporting Standards ('IFRSs') adopted by the European Union.

### **Taxation, Share-based payments and financial instruments**

For the relevant accounting policies please see note 1.

### Investments in subsidiary undertakings

Investments in subsidiary undertakings where the Company has control are stated at cost less any provision for impairment.

### 20 Directors' remuneration

The only employees of the Company are the Directors. In respect of Directors' remuneration, the disclosures required by Schedule 5 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 are included in the detailed disclosures in the audited section of the Directors' remuneration report on pages 17 to 19, which are ascribed as forming part of these financial statements.

### 21 Investment in subsidiary undertaking

Investments in Group undertakings are stated at cost.

llika plc has a wholly-owned subsidiary, llika Technologies Limited. Ilika Technologies Limited (Incorporated in the UK) made a loss for the year of £3,030,519 (2016: £3,152,084) and had net liabilities as at 30 April 2017 of £17,724,504 (2016: £14,693,985).

Shares in Group undertakings (at cost)	2017 £	2016 £
At 1 May 2016 and 30 April 2017	121,339	121,339

The registered address of Ilika Technologies Limited is Kenneth Dibben House, Enterprise Road, University of Southampton Science Park, Chilworth, Southampton SO16 7NS.

### 22 Trade and other receivables

	2017 £	2016 £
Prepayments	13,646	2,518

# 23 Amount due from subsidiary undertaking

	2017 £	2016 £
Ilika Technologies Limited	24,108,345	18,234,670

### 24 Trade and other payables

	2017 £	2016 £
Trade payables Accruals	32,903 115,245	6,019 130,287
	148,148	136,306

### **25 Related party transactions**

During the year the Company recharged costs totalling £163,744 (2016: £168,375) to its subsidiary, Ilika Technologies Limited. Amounts owed to Ilika Technologies Limited are disclosed in note 23.

Details of key management personnel and their compensation are given in note 4 and in the Directors' remuneration report on pages 17 to 19.

The Directors consider that no one party controls the Company.

### **26 Financial instruments**

## **Credit risk**

The Company's credit risk is attributable to its receivable of £24,108,345 from its subsidiary undertaking, Ilika Technologies Limited. As at 30 April 2017, Ilika Technologies Limited had net liabilities of £17,724,504. The Company makes no allowance for impairment of this balance. Impairment is considered by management based on prior experience, current market and third-party intelligence, while considering the current economic environment.

# CORPORATE DIRECTORY

Company number	7187804
Directors Executive	Graeme Purdy Prof. Brian Hayden Steve Boydell
Non-Executive	Mike Inglis (Chairman) Clare Spottiswoode CBE Prof. Sir William Wakeham Prof. Keith Jackson
Secretary	Steve Boydell
Registered office	Kenneth Dibben House Enterprise Road University of Southampton Science Park Chilworth Southampton SO16 7NS
Website	www.ilika.com
Advisers Independent auditors	BDO LLP Arcadia House Maritime Walk Ocean Village Southampton SO14 3TL
Nominated adviser and broker	Numis Securities Limited The London Stock Exchange Building 10 Paternoster Square London EC4M 7LT
Registrars	Computershare Investor Services PLC The Pavilions Bridgwater Road Bristol BS13 8AE
Public relations	Walbrook PR Limited 4 Lombard Street London EC3V 9HD
Remuneration consultants	FIT Remuneration Consultants LLP 5 Fitzhardinge St London W1H 6ED



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