



ARCHANGEL INVESTORS LIMITED

# ANNUAL REPORT

# 2022



1992-2022



Archangels is a prominent business angel syndicate, which has been at the forefront of early stage investing in Scotland for over 30 years. We provide our members with carefully-curated opportunities to invest in the most innovative companies and to support their early stage development to fullest potential.

There are

20

active companies  
in our portfolio

in which Archangels  
has invested

£75m

to date.

INVESTING  
*in innovation*



Investment and expertise  
for promising, early stage  
Scottish technology and  
life science companies

## PORTFOLIO



The investment team chooses not to report the fair value of Archangels' investments. However, it is important to note that the underlying fair value of a large number of companies in the current portfolio is greater than the book value.

For purposes of reporting on number of follow on rounds, multi tranced investments have been included as 1 investment round.

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**CHAIR**

Ian Macleod

**DIRECTORS**

Tim Alan CBE  
Neil Cunningham  
Maureen Kinsler  
Mike MacPhee  
Andrew Sealey  
Eric Young



## LETTER FROM THE CHAIR

**Dear Member**

**‘To deliver outstanding returns for our investors, harnessing their experience and our network to fuel the success of Scotland’s entrepreneurs and innovators’.** This is our vision, as updated for our 30th year since inception, and one to which I wholeheartedly subscribe.

As a board member for the past four years, I have been hugely impressed by the cohesive interaction of the executive team, the board and the members in pursuit of these goals. I am therefore greatly honoured to have been asked to take the chair as Eric Young retires after eight exemplary years in the post. On behalf of us all, I extend our deepest gratitude and wish Eric and his family the very best for the future. Meantime thanks and welcome to Neil Cunningham, a seasoned entrepreneur and Archangels member, who has agreed to join the board.

There is much to celebrate on this important anniversary. The most recent independent review of our Social and Economic impact (by Glasgow University’s Business School) suggests that between 1992-2022, Archangels’ investee companies generated up to £1.4bn of Gross Value Added to the Scottish economy and directly or indirectly created over 5000 jobs.

In the year under review, we led 9 investment rounds totalling £27.7m, of which £14.1m came from our members, and the momentum has continued a pace in the current year. We have so far closed six funding rounds, three of which have been priced at a very substantial premium to recent prior transaction values (Integrated Graphene, Biocaptiva, Speech Graphics). Moreover, we achieved another successful exit in January with the sale of Optoscribe to a large US corporation, generating a significant money multiple and IRR. Discussions concerning other potential external funding rounds, partnerships or exits are ongoing at several of our companies, and we hope to bring you news of at least some of these in the coming months.

Whilst we will continue to actively explore all options, members should not underestimate the difficulties that we are currently faced with, and how they are impacting the investment environment (Nasdaq down by one third so far in 2022

with estimates of the decline in secondary market valuations of private companies on both sides of the Atlantic a little less pronounced). As capital becomes more expensive, exit deals will be harder to come by, and certainly not done until done. We are encouraging our companies to extend their cash ‘runways’ and are redoubling our efforts to support them in the medium term. The executive team have helped with significant board reinforcement at several of our companies over the past year.

We are also working hard to replenish the portfolio, and during the year we led an initial funding round for Earth Blox, a software platform which enables users to access and manipulate satellite imagery from many sources much more easily and cost effectively than before.

In contrast to the ‘stun grenade’ that has hit venture capital funding, competition for start-up opportunities remains strong, and we will need to enhance and leverage our reputation for providing companies with more than just capital in order to engage with the best companies at the right valuation.

To this end, among others, communication is vital, and we must ensure that what we say between ourselves and to the world outside hits the mark. We have reviewed and updated our branding, PR and messaging and the results have included our revamped website and much enhanced media and social media profiles.

During the year our membership base remained steady, at around 120. You are an integral part of this team, providing not just investment capital but experience and expertise to the benefit of all our activities.

As we emerge from the pandemic, remote conferencing for company presentations will remain the norm, but we will make informal discussion events with our companies a regular feature in addition to the much-loved annual Chorus and AGM forums. Please also notify the

office if you would like to join one of our monthly board meetings or a New Deals Committee meeting.


I would like to conclude by thanking our executive team, who put a huge amount of effort and professionalism into all aspects of our business.

I believe that our companies are in generally good shape, and although there will inevitably be difficult decisions to make in the months and years ahead, outstanding returns for our investors across the portfolio are indeed a genuine prospect.

**Ian Macleod**, Chair  
October 2022



OUR INVESTMENT  
PHILOSOPHY



EARLY STAGE TECHNOLOGY  
AND LIFE SCIENCES



BASED IN  
SCOTLAND



HIGH GROWTH  
AND SCALABILITY




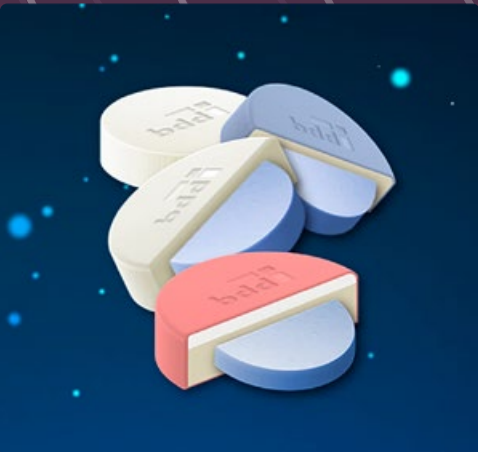
RANGE OF INVESTMENT  
FROM £500K TO £2M



DEFENSIBLE IP



USE DOMAIN EXPERTISE  
IN NETWORK TO DILIGENCE  
OPPORTUNITIES



ENTERPRISE INVESTMENT  
SCHEME QUALIFYING



LEAD INVESTOR OVER  
MULTIPLE FUNDING  
ROUNDS





Administrate

**BOARD:**  
Ed Molyneux  
(Chair)  
John Peebles  
(CEO)  
Patrick Flanagan  
(COO)  
Katherine Tenner  
(CFO)  
Niki McKenzie  
(Investor Director, NXD)  
Aaron Ross  
(NXD)  
Alex Wilson  
(Mercia Investor Director, NXD)

Date of First Investment:	December 2010
Initial Sum Invested:	£0.22m
Total Invested by Archangels:	£8.7m
No. of Follow on Rounds:	11
% Held (fully diluted):	37.3%
Last round Price:	£0.20
Total Invested by All Shareholders:	£19.1m
Archangels observer:	Niki McKenzie

Administrate provides a training management platform that helps enterprises streamline their learning and development activity through comprehensive, configurable, cloud- based software. The software helps businesses organise content and build learning plans for students; deliver online and blended learning activities; and schedule and plan resources to enable users to maximise their return on training investment.

**COMMENT:**  
The business is focusing on large global enterprise customers with complex scheduling requirements. Often these customers are working within manufacturing environments with high value equipment and regulated processes. Average contract values continue to increase as a result. Additional functionality is being created to ensure faster integrations with customers’ systems.



**BOARD:**  
Joseph Keegan  
(Chair)  
Iain McWilliam  
(CEO)  
Kirsty Macfarlane  
(COO)  
Martin Ramsay  
(CFO, Investor Director)

Date of First Investment:	February 2001
Initial Sum Invested:	£0.1m
Total Invested by Archangels:	£3.5m
No. of Follow on Rounds:	13
% Held (fully diluted):	58.6%
Last round Price:	£0.17
Total Invested by All Shareholders:	£5.5m
Archangels observer:	David Ovens

Arrayjet is a niche biotechnology company, providing innovative microarray and bio-printing solutions to diagnostic companies, drug development groups and life-science researchers worldwide. It is a quality company, with ISO 13485:2016 accreditation.  
  
Arrayjet’s platform technology is built around unique non-contact, inkjet technology which consistently delivers picolitre to nanolitre volumes, for high quality microarray and biochip production. It manufactures and sells instruments direct to customers for in-house use, as well as offering Arrayjet Advance™, which provides outsourced contract research and screening

**COMMENT:**  
Arrayjet continues to make progress despite the headwinds of the pandemic continuing to hamper international installations. Arrayjet Advance™ continues to grow as a business area, where microarrays are proving crucial in small molecule drug binding, therapeutic antibody screening, biomarker discovery, autoimmune profiling and protein-protein interactions, to name just a few examples. The business continues to innovate and ‘Mercury’, its latest instrument, was launched this year.



**BOARD:**  
Joanna Kelley  
(Chair)  
Carol Thomson  
(CEO)  
Glenn Crocker  
(NXD, Investor Director)  
Stephen Brown  
(NXD)  
Claire Madden-Smith  
(NXD)  
Howard Stevens  
(Director, Founder)

Date of First Investment:	February 2018
Initial Sum Invested:	£1.86m
Total Invested by Archangels:	£2.72m
No. of Follow on Rounds:	1
% Held (fully diluted):	23.0%
Last round Price:	£8.60
Total Invested by All Shareholders:	£3.2m
Archangels observer:	Sarah Hardy

Bio-Images Drug Delivery Ltd (BDD Pharma) combines drug delivery formulation expertise and clinical capabilities to accelerate product development pipelines, enable drug life cycle management and create new value-added products to its clients. Rapid parallel clinical testing with BDD SWIFT significantly reduces the time from product concept to clinical success. The unique patented time release technology, OralogiK™ provides unrivalled control of drug release at the right place and the right time to achieve a superior and clinically effective drug delivery profile.

**COMMENT:**  
BDD Pharma continues to trade well with strong growth across the business. It has expanded its global customer base with new clients accessing its clinical and formulation services. The clinical facility is running at capacity and expansion plans are being worked up to provide fully integrated formulation development and clinical trials needed for pharmaceutical sector.  
  
The company remains focused on building a strong pipeline of development and royalty bearing license agreements to create shareholder value.



**BOARD:**  
Frank Armstrong  
(Chair)  
Jeremy Wheeler  
(CEO)  
Tim Aitman  
(CSO)  
Alison Williamson  
(CFO)  
Mark Bradley  
Director  
Stephen Little  
(NXD, Investor Director)

Date of First Investment:	March 2021
Initial Sum Invested:	£0.96m
Total Invested by Archangels:	£2.4m
No. of Follow on Rounds:	1
% Held (fully diluted):	34.9%
Last round Price:	£54
Total Invested by All Shareholders:	£3.2m
Archangels observer:	Sarah Hardy

BIOCAPTIVA is developing BioCaptis, a revolutionary medical device that promises to transform liquid biopsy testing and enhance cancer detection. Dramatically increasing the amount of cell-free DNA (cfDNA) available for liquid biopsy testing, BioCaptis empowers cancer diagnostics and research, far beyond what is currently possible.  
  
The BioCaptis works alongside a standard apheresis machine, filtering cfDNA from the patient’s blood system during a 30 min (approx.) procedure. The resulting sample contains in the order of 100x more cfDNA than the current standard of care (a simple blood draw), allowing much more accurate liquid biopsy, including the detection of early stage disease.

**COMMENT:**  
The company is working towards the first in human clinical trials to generate important data early 2023. This will be a key step before starting regulatory trials with the goal of unleashing the full potential of liquid biopsy in cancer management to improve patient outcomes.  
  
The unique properties of the novel polymer mixture have also demonstrated the potential to extract cfDNA ex vivo offering a second product opportunity for the company.

# Blackford

**BOARD:**  
Chris Nash  
(Chair)  
Ben Panter  
(CEO)  
Scott Rutherford  
(COO & CFO)  
Conrad Chin  
(Chief Product Officer)  
Clovis Younger  
(NXD, Investor Director)

Date of First Investment:	September 2012
Initial Sum Invested:	£0.45m
Total Invested by Archangels:	£6.08m
No. of Follow on Rounds:	5
% Held (fully diluted):	40.4%
Last round Price:	£21.06
Total Invested by All Shareholders:	£11.25m
Archangels observer:	Niki McKenzie

Blackford provides a platform for radiologists to access a marketplace of medical image analysis applications and AI algorithms that add clinical value. The platform is integrated into existing healthcare workflows allowing users to reduce the cost of care while improving diagnostic confidence and patient outcomes.

**COMMENT:**  
The business has seen another year of a significant growth in partnership and direct deals for deployment of its platform. Bayer launched its version of Blackford’s platform this June with plans underway for deployment to its hospital customer base. Blackford is currently focused on increasing its marketing and sales activity in the US to exploit growing opportunities as end user hospital and radiology groups trial and assess new AI technologies.

# CALCiViS

dental enlightenment

**BOARD:**  
John Brown  
(Chair)  
Adam Christie  
(CEO)  
Bruce Vernon  
(CTO)  
Peter Rees  
(NXD, Investor Director)  
Michael Crane  
(NXD, SE Investor Director)  
Zishan Haroon  
(NXD)

Date of First Investment:	August 2012
Initial Sum Invested:	£0.5m
Total Invested by Archangels:	£8.2m
No. of Follow on Rounds:	11
% Held (fully diluted):	40.2%
Last round Price:	£4.17
Total Invested by All Shareholders:	£15.7m
Archangels observer:	Sarah Hardy

CALCiViS is developing a highly scalable, consumable-based medical device, aimed at enabling and monetising preventive dentistry. The CALCiViS Imaging System (CIS) aims to be the world’s first biotechnology-based dental imaging system, focused on revolutionising the management of tooth decay. After delivering an application of CALCiViS photoprotein, CIS enables dentists and their patients to see active demineralisation ‘live’ as it is happening on a tooth surface. For the first time, this allows sight of how a lesion is progressing and can be used to determine what treatment is required. It can also demonstrate treatment success and that a cavity has been prevented.

**COMMENT:**  
The Food and Drug Administration (FDA) in the USA is expected to fully approve the CIS product in Q1 2023 with the issuance of the PMA (Pre-Market Approval) following the pre-approval manufacturing inspection this year. Operational planning is underway for a phased launch starting in Massachusetts in 2023 (US nationwide 2024) from the Boston office. The company is bringing together a syndicate to fund the US launch and scale up plans.



**BOARD:**  
Alan Raymond  
(Chair)  
David Rigterink  
(CEO)  
Nicola Broughton  
(NXD)  
Geno Miele  
(NXD, Investor Director)  
Stewart White  
(NXD)

Date of First Investment:	December 2014
Initial Sum Invested:	£0.1m
Total Invested by Archangels:	£3.2m
No. of Follow on Rounds:	5
% Held (fully diluted):	44.5%
Last round Price:	£8.00
Total Invested by All Shareholders:	£5.4m
Archangels observer:	Sarah Hardy

•Numbers includes tranche 2, expected to be drawn Q4 Oct 2021.

Cytomos plans to revolutionise cell analysis by bringing understanding to production, and intelligence to process automation, to make cell therapies possible at scale. The underlying Cytomos Dielectric Spectroscopy (CDS) is a proprietary and patented cell analysis technology allowing the unseen to be seen. This unique, full-stack, single-cell resolution analysis platform delivers label-free analytics that promises to radically enhance cell therapy, discovery, and development.

**COMMENT:**  
Cytomos is currently engaging with a variety of different end-users and instrument manufacturers, to demonstrate the value of its platform to build market confidence in the technology and demonstrate its capabilities. The management team has been strengthened during the year, including the recent appointment of David Rigterink as CEO. The company is seeking to pursue a Series A funding round in 2023.



**BOARD:**  
Richard Lewis  
(Chair)  
Genevieve Patenaude  
(CEO)  
Samuel Fleming  
(COO)  
TBC  
(NXD, Investor Director)

Date of First Investment:	May 2022
Initial Sum Invested:	£1.5m*
Total Invested by Archangels:	£1.5m*
No. of Follow on Rounds:	0
% Held (fully diluted):	30.5%*
Last round Price:	£30.18*
Total Invested by All Shareholders:	£1.5m*
Archangels observer:	Niki McKenzie

Earth Blox (“EBX”) has developed software which provides unparalleled access to satellite imagery and intelligence for earth observation. Currently accessing the significant and increasing volumes of satellite data involves expertise and a considerable amount of coding work. EBX’s highly scalable solution of a drag-and-drop ‘no code’ interface enables users to create and customise their own solutions in minutes, allowing them to build their own model block by block (criteria including specific satellite, region, weather, fire, vegetation, timeline plus others), thereby enabling unprecedented levels of earth observation insights for all.

**COMMENT:**  
The product has been refined further since receiving investment to deliver even more flexibility to users. The team has been successfully winning early contracts from a mixture of enterprise customers, NGO and educational establishments. The current focus is on building out the marketing strategy, developing pricing models based on early market feedback .





**BOARD:**  
Alan Johnston  
(Chair)  
Sarah Lynagh  
(CEO)  
Martin Ramsay  
(CFO)  
Max Bylesjo  
(Technical Director)  
Alastair Strachan  
(NXD, Investor Director)  
Peter Ghazal  
(NXD)

Date of First Investment:	July 2011
Initial Sum Invested:	£0.325m
Total Invested by Archangels:	£1.1m
No. of Follow on Rounds:	4
% Held (fully diluted):	34.3%
Last round Price:	£3.45
Total Invested by All Shareholders:	£2.6m
Archangels observer:	Sarah Hardy

Fios Genomics provides an extensive range of bioinformatics data analysis services to biotechnology, pharmaceutical, contract research organisations and academia. Fios Genomics offers access to a combined resource of in-house bioinformaticians, statisticians and biologists working together to analyse and interpret data. Its team specialises in the analysis of high- dimensional, multi-variant datasets and recognising patterns and trends associated with a trait, disease or drug response for drug discovery and development and applied research across all species.

Fios Genomics’ proprietary solutions allow the analysis of large datasets to be parallelised, saving processing time and avoiding the complications that can arise when analysing data in batches. Combining robust statistics and pathway analysis, they can reveal the biology of clients’ experiments and turn data into useful, relevant and actionable information.

**COMMENT:**  
Fios has invested heavily, increasing its workforce and capability, and moving into a new facility this year. The business is trading well, with solid growth plans and new client acquisitions this financial year.

Fios continues to work in partnership with Charles River Laboratories offering their clients access to Fios Genomics’ expertise to assist in the sourcing and analysis of datasets associated with drug development including microarrays, next-generation sequencing (NGS), proteomics, metabolomics and epigenetics, as well as the associated meta-data.



**BOARD:**  
Charles Sweeney  
(Chair)  
Claudia Freigang  
(CEO)  
Colin Horne  
(CTO)  
Jacqui McLaughlin  
(NXD, Investor Director)  
Philip Harris  
(NXD)

Date of First Investment:	October 2020
Initial Sum Invested:	£0.7m
Total Invested by Archangels:	£1.47m
No. of Follow on Rounds:	1
% Held (fully diluted):	39.2%
Last round Price:	£10.50
Total Invested by All Shareholders:	£1.8m
Archangels observer:	Niki McKenzie

Hearing Diagnostics has developed a novel hearing screening technology. It is targeted at hearing aid retailers who are looking for new technologies to help them to exploit a growing hearing aid market. Currently the majority of hearing tests are conducted by audiologists, using ‘clicks’ to confirm detection of ‘beep’ sounds which is subjective, error prone and requires sound proofed booths. Hearing Diagnostics’ test uses a head motion sensor, in combination with headphones, for localisation-based hearing screening, which can be completed in a few minutes on the shop floor.

**COMMENT:**  
The team has had a very successful year with its technology currently being certified for commercialisation. Early trials with a large UK retailer have demonstrated success at generating incremental leads for hearing aid sales. Early discussions with hearing aid manufacturers (who control much of the retail market) are underway.



**BOARD:**  
Alan Cox  
(Chair and CEO)  
Julia Eynon  
(Marketing Director)  
Gary Anderson  
(Executive Director)  
John Waddell  
(NXD, Investor Director)  
David Newlove  
(NXD)

Date of First Investment:	June 2004
Initial Sum Invested:	£1.6m
Total Invested by Archangels:	£1.7m
No. of Follow on Rounds:	0
% Held (fully diluted):	17.7%
Last round Price:	£36.00
Total Invested by All Shareholders:	£1.8m
Archangels observer:	David Ovens

Indigo Lighthouse empowers brands to convert consumers into loyal subscribers with its plug-and-play outsourcing solution for subscription loyalty programmes. The Platform supports the complete customer acquisition and retention journey from deep data analysis to full subscription purchasing, embracing technology like QR codes and specially developed white label apps to directly enroll consumers onto subscription.

Services include rich data insights to facilitate activity that dramatically increases customer annual spend, customer purchase frequency and customer lifetime value.

ILG customers benefit from a sophisticated global multicurrency payments management platform; global supply chain management including warehousing, pick and pack of product and delivery to the end consumer. As well as the management of all forms of customer communications through a multi- lingual and award-winning Customer Communications Centre.

**COMMENT:**  
Indigo Lighthouse has continued to trade well during the year and has successfully consolidated its expansion into new verticals, with Vetpost contributing increasingly strong revenues, in addition to the established UK and European contact lens customer base. The company has moved its European warehouse operations to Germany from Jersey, which led to some exceptional costs, but the facility is now operating well. Covid has meant that the US operation has not grown as quickly as the board would have hoped, but the opportunity in that market remains strong. The company continues to pay dividends to shareholders.



**BOARD:**  
Chris Gauld  
(Chair)  
Claud Marquardt  
(CEO)  
Marco Caffio  
(CSO)  
Douglas Bain  
(CFO)  
Ewan McLellan  
(NXD, Investor Director)

Date of First Investment:	November 2020
Initial Sum Invested:	£1.18m
Total Invested by Archangels:	£4.2m
No. of Follow on Rounds:	1
% Held (fully diluted):	21.2%
Last round Price:	£8.60
Total Invested by All Shareholders:	£11m
Archangels observer:	Niki McKenzie

Integrated Graphene has invented, and has a suite of patents pending for a unique breakthrough process to produce a pure 3D graphene foam. The company believes that its manufacturing process enables high quality, cost effective and scalable production; something not achieved by any company to date.

The team is focused on demonstrating its graphene foam in two beachhead markets: human diagnostics electro-chemical biosensor market and super capacitor power storage market.

**COMMENT:**  
After completing a significant funding round during 2022, the business has made good progress scaling up production. Early-stage development contracts have been delivered for a number of life sciences customers and follow-on work is in negotiation. Project work is also underway for a number of novel supercapacitor applications.



**BOARD:**  
Ken Fyvie  
(Chair)  
Miroslav Ravic  
(CEO)  
Raymond Spencer  
(CFO)  
Adam Christie  
(NXD, Investor Director)  
Stephen Felstead  
(NXD)

Date of First Investment:	February 2010
Initial Sum Invested:	£0.23m
Total Invested by Archangels:	£3.7m
No. of Follow on Rounds:	9
% Held (fully diluted):	30.3%
Last round Price:	£0.20
Total Invested by All Shareholders:	£8.96m
Archangels observer:	Sarah Hardy

MGB Biopharma is a biopharmaceutical company focused on the development of a new class of antibiotic. Its lead candidate, MGB-BP-3, is a potent bactericidal antibiotic with a completely novel mode of action for the treatment of Clostridium difficile Infection (CDI). CDI is a serious and often life-threatening infection of the large intestine and is the most frequent cause of diarrhoea in hospitals and care homes. In the US alone, there are almost half a million cases every year associated with around 30,000 deaths; three people die of uncontrolled CDI every hour.

**COMMENT:**  
Further to its successful Phase II clinical study the company is currently looking to find a development partner to progress the future, necessary, clinical development of its lead candidate. It remains in active dialogue with potential parties.



**BOARD:**  
Keith Gibson  
(Chair)  
Neil Tocher  
(Joint CEO)  
Paul Mooney  
(Joint CEO)  
Andrew Clifforth  
(NXD, Investor Director)

Date of First Investment:	October 2011
Initial Sum Invested:	£0.1m
Total Invested by Archangels:	£14.5m
No. of Follow on Rounds:	9
% Held (fully diluted):	51.5%
Last round Price:	£10.42
Total Invested by All Shareholders:	£20m
Archangels observer:	Niki McKenzie

NTech captures very high resolution 360 degree street level imagery and 3D data, which allows users to experience the world virtually rather than physically. Its hardware and software capturing and processing systems are proprietary, having been developed in house over a number of years. The business model is to capture data once and resell multiple times.

**COMMENT:**  
NCTech continues to work with a number of large tech businesses providing imagery which is being used for asset tracking, mapping and immersive experiences.





**BOARD:**  
Garry Fingland  
(Chair)  
Charles Sweeney  
(CEO)  
Kirsten Lord  
(Clinical Director)  
Ross Haworth  
(NXD, Investor Director)  
Richard Haslam  
(NXD)

Date of First Investment:	December 2016
Initial Sum Invested:	£0.23m
Total Invested by Archangels:	£2.3m
No. of Follow on Rounds:	4
% Held (fully diluted):	46.7%
Last round Price:	£9
Total Invested by All Shareholders:	£3.2m
Archangels observer:	David Ovens

PhysioMedics™ is a digital healthcare company, providing digital triage solutions and data analytic insights, to reduce costs and improve efficiencies in managing health conditions. Initially specialising in musculoskeletal (MSK), the target customer markets are health insurance companies, occupational health companies and private health care providers.

**COMMENT:**  
The company continues to make progress in the early commercialization of its clinically, market leading, digital MSK triage tool.



**BOARD:**  
Clovis Younger  
(Chair)  
Roy McBride  
(CEO)  
Richard Clarke  
(CFO)  
Robert Black  
(NXD, Investor Director)  
David Evans  
(NXD)

Date of First Investment:	November 2007
Initial Sum Invested:	£0.4m
Total Invested by Archangels:	£3.1m
No. of Follow on Rounds:	6
% Held (fully diluted):	42.5%
Last round Price:	£4.75
Total Invested by All Shareholders:	£5.2m
Archangels observer:	Niki McKenzie

PowerPhotonic designs and manufactures precision micro-optics for the global laser industry. Its products are used in a wide range of applications, including industrial laser material processing, medical systems, optical communications, military applications, and big science. PowerPhotonic is a pioneer in the use of laser micro-machining for the manufacturing of precision micro optics products. Through its unique capabilities in optical design and fabrication it provides industry leading innovation, functionality and performance, across a growing range of products and applications.

**COMMENT:**  
Industrial customer activity has recovered post Covid-19 and the business is forecast to report another good year of growth in 2022.  
  
The business opened a new manufacturing facility in Tuscon, US which will support future growth in the US defense sector.



**BOARD:**  
Richard Lewis  
(Chair)  
Chris Liversidge  
(CEO)  
Phil Andrews  
(NXD, Investor Director)

Date of First Investment:	July 2019
Initial Sum Invested:	£1.2m
Total Invested by Archangels:	£1.97m
No. of Follow on Rounds:	1
% Held (fully diluted):	13.8%
Last round Price:	£9.25
Total Invested by All Shareholders:	£3.5m
Archangels observer:	Niki McKenzie

Chris Liversidge founded QueryClick as a digital marketing search agency in 2008. Frustrated by the lack of tools to accurately attribute revenue to marketing activity, Chris led the team to develop Corvidae branded software which incorporates proprietary data cleansing tools. Overlaying statistical modelling allows companies to more accurately predict which marketing activity will generate revenue and which will not. Early adopters of the tools have experienced a return of eight times investment.

**COMMENT:**  
There continues to be significant interest in attribution solutions as regulations around the use of cookies and tracking technology change. Following feedback from early customers, the product was simplified and onboarding made easier. The number of customers onboarded and using software is now building. The sales pipeline is strong, with a mixture of large blue-chip as well as mid-market companies. The team has also signed a number of distributor agreements.



**BOARD:**  
Iain Mackay  
(Chair)  
Jacqui McLaughlin  
(CEO)  
Eleanor Barnard  
(CFO)  
Tracey Gorman  
(Director)  
Mark Buckingham  
(NXD)  
Alastair Hogg  
(NXD, Investor Director)

Date of First Investment:	April 2004
Initial Sum Invested:	£0.26m
Total Invested by Archangels:	£2.9m
No. of Follow on Rounds:	7
% Held (fully diluted):	47.8%
Last round Price:	£35.00
Total Invested by All Shareholders:	£4.6m
Archangels observer:	Sarah Hardy

Reactec is a spinout business from the University of Edinburgh and has built a reputation as the leader in Hand Arm Vibration (HAV) risk management. The automation and analysis of the large data sets being gathered by its vibration monitoring technologies has positioned the company now to offer more holistic connected worker information management.

Reactec’s connected worker platform monitors employees’ exposure to a growing number of health hazards in the workplace. Wearable devices allow customers to monitor exposure to risks such as HAV, noise and dust or keeping workers safe through social distancing or exclusion zones.

**COMMENT:**  
Reactec has focused on R&D this year culminating in the launch of R-Link, a third-generation workplace wearable with expanded functionality. Feedback from early customers using R-link has been positive, resulting in new market opportunities.  
  
The company continues to trade well and has made significant progress with sales into international markets this year.



<b>BOARD:</b>	
Gregor Hofer	(CEO)
Michael Berger	(CTO)
Doug Montgomery	(NXD, Investor Director)
Michael Graninger	(NXD)

Date of First Investment:	August 2018
Initial Sum Invested:	£2.0m
Total Invested by Archangels:	£2.9m
No. of Follow on Rounds:	2
% Held (fully diluted):	15.8%
Last round Price:	£10.90
Total Invested by All Shareholders:	£9.2m
Archangels observer:	David Ovens

Based on over 20 years of R&D in speech technology and procedural facial dynamics, Speech Graphics’ software produces high-quality facial animation from audio alone, with no need for motion capture. Speech Graphics delivers pioneering facial animation technology to the entertainment industry, working with most of the major games studios. The company has developed a scalable web platform which will allow developers and partners to create avatars capable of engaging and interacting with individuals in real-time.

**COMMENT:**  
The company has continued to see strong revenue growth in the games business, while also focusing on the ongoing development required to scale and commercialise its Rapport web platform.  
  
During the year, the company has taken further investment from US VC Sands Capital Ventures, as well as strategic investment from Netease, a large Chinese internet company.



<b>BOARD:</b>	
Martin Ritchie	(Chair, Investor Director)
Andy Davis	(CEO)
Martin Gray	(Director)
Alan Fraser	(NXD)

Date of First Investment:	June 2006
Initial Sum Invested:	£0.28m
Total Invested by Archangels:	£0.74m
No. of Follow on Rounds:	3
% Held (fully diluted):	30.3%
Last round Price:	£18.26
Total Invested by All Shareholders:	£1.47m
Archangels observer:	David Ovens

Trig Avionics is a leader in the design and manufacture of aircraft avionics for general aviation. With an expertise in compact and innovative technology, Trig provides aircraft owners with transponder and radio communications equipment that is smart, affordable and future proof.  
  
Trig manufactures in the UK – sustaining highly skilled jobs working with a global network of over 700 Approved Trig Dealers in 42 countries around the world.

**COMMENT:**  
The company has seen steady global demand for its aviation products as markets return to normal post Covid. It has traded profitably during 2022, albeit growth has not been at levels which the company had planned for. However, the company introduced its new TX56 Nav/Com product to market during the year, which has seen strong demand which in turn will help to underpin revenue growth during 2023.



EXECUTIVE  
TEAM

Archangels is run by a team of senior executives, all of whom have had many years’ of experience in funding high-growth companies.



NIKI MCKENZIE

E: niki@archangelsonline.com

Joint Managing Director

Niki is a Chartered Accountant with a strong background in Corporate Finance from roles with KPMG and Lloyds Banking Group.

She joined Archangels in 2011 and has been involved with investment appraisal, portfolio company oversight and exit transactions.



DAVID OVENS

E: david@archangelsonline.com

Joint Managing Director

As well as having responsibility for the day to day management of Archangels’ business, David also has responsibility for a number of the portfolio companies.

David is an experienced corporate financier and investment banker, having worked for Samuel Montagu & Company Limited, Noble Grossart Limited and Noble & Company Limited, before setting up Invercap, a corporate finance and investment firm based in Edinburgh. He is Chair of SIS Ventures (a subsidiary of Social Investment Scotland) and a non-executive director of LINC Scotland, the trade association for angel investors in Scotland.



SARAH HARDY

E: sarah@archangelsonline.com

Director, Head of New Investments

Sarah has extensive international experience of financing early stage opportunities in the technology sector, with specific focus on life science and the healthcare arena. Before joining Archangels, Sarah worked at Wellcome Trust, Advent Life Sciences venture team and Parke-Davis Neuroscience Research Centre.

Sarah has direct responsibility for the new investments into the portfolio and the management of several of the portfolio companies. She is on the board of Social Growth Fund (Social Investment Scotland) and the Data-Driven Innovation Delivery Board for the City Region deal.



LINDSAY MILLER

E: lindsay@archangelsonline.com

Office Manager

Lindsay joined Archangels in 2015 and is responsible for finance, company secretarial and event management activities as well as the day to day running of the office.

She holds an honours degree in Immunology & Microbiology from Strathclyde University.



SHAOLEI MCKIE

E: shaolei@archangelsonline.com

Investment Executive

Shaolei is a Chartered Accountant who specialised in leveraged finance and fund investments within Bank of Scotland Corporate Banking division. She was latterly the financial controller of Corran Properties.

Shaolei joined Archangels in March 2017 and has responsibility for investment support, including management of share capital tables, due diligence, legals and the investor portal.

## VALUES



### We are *aligned*

Through the way that we're structured, our ambitions and our objectives, we are aligned with the interests of both our member investors and our portfolio companies.



### We are *connected*

We bring together the skills and experience of our members, our extensive network and our portfolio companies, to achieve the best outcome for the businesses we support.



### We act with *integrity*

We are transparent in all our business dealings, applying a consistent approach to the investment process, which our investors and portfolio companies can rely upon.



### We are *professional*

From the rigour of our due diligence to the method of our investment process, we act with the highest degree of professionalism across every aspect of our operation.



### We work in *partnership*

We provide support through thick and thin to help our portfolio companies achieve their ambitions and to maximise returns for our investors.



### We are *committed*

As a dedicated investor in Scotland's next generation of entrepreneurs and innovators, we are deeply committed to our long-term role in maximising investor returns, building and nurturing successful businesses and helping Scotland prosper.



1992-2022

CELEBRATING **30**  
YEARS



## ENQUIRIES

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GENERAL ENQUIRIES:

**0131 221 9876**

FUNDING APPLICATIONS:

**investment@archangelsonline.com**

MEMBERSHIP ENQUIRIES:

**membership@archangelsonline.com**

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**@ArchangelInvest**

Archangel Investors Limited  
20 Rutland Square  
Edinburgh  
EH1 2BB

**archangelsonline.com**

Member of

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Association

  
**Scottish Enterprise**

 **LINC Scotland**  
The Scottish Angel Capital Association

**BAE**  
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