



OXFORD UNIVERSITY INNOVATION ANNUAL REPORT 2016



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WE ARE PLEASED TO REPORT ANOTHER SUCCESSFUL YEAR, WITH OUI MAKING A CONTRIBUTION TO ALL FOUR ACADEMIC DIVISIONS OF THE UNIVERSITY.



ABOUT US



NIGEL KEEN
CHAIRMAN

Oxford University Innovation contributes to the University's mission of creating impact in the wider world by commercialisation of research and expertise. I am delighted to report another successful year marked by a number of changes that strengthen our offering and our role within all four academic divisions of the University and the wider entrepreneurial ecosystem.

The University's Innovation Working Group gave added impetus to efforts to enhance collaboration between a number of groups supporting innovation, and led naturally to the most visible change for us – our name change. Our new name emphasises our close connection with the University and also reflects the work we do.

Having outgrown our premises in Summertown, the company moved to premises on Oxford's Botley Road, with better facilities for meetings with researchers and our other constituencies. Oxford's achievements in creating new companies, and attracting significant investment to help them reach their potential, were recognised this year in articles from the Wall Street Journal, identifying the city as a global tech hot spot, and the Financial Times, which drew attention to the positive effect of patient capital in helping new ventures to become significant enterprises.

In March Tom Hockaday stepped down as CEO. Tom led the company from 2006 and under his strong leadership the company grew and established an international reputation as a leader in the sector. Linda Naylor has ably led the business in the interim since Tom left but she also is now retiring and hands over to Matt Perkins, who joined us to lead the business through the next chapter of its development. Our thanks go to Tom and Linda for their work in making OUI the business it is today.



LINDA NAYLOR
MANAGING DIRECTOR

We have had an exciting year with a number of notable operational changes – including a name change, our move to new premises, the reintegration of the Spinout Equity Management team and a financial year that lasted for 16 months as we aligned our reporting with that of the University.

Our core mission – to provide a service to the University and its researchers – is unchanged. We are pleased to report another successful year, with OUI making a contribution to all divisions of the University.

The formation of Oxford Sciences Innovation (OSI), with a £350m (now £580m) investment fund to support spinouts from Oxford, addresses one of the key constraints to commercialising university IP. The step change in spinouts this year is evidence of the number of investor-ready ventures that Oxford's world class research produces, well supported by OSI and other investors.

We look forward to making a continued strong and positive impact as we support our colleagues throughout the University by incubating ideas, licensing IP and facilitating consultancy for the benefit of society.



MATT PERKINS,
CEO (FROM OCTOBER 2016)

Having joined the company in October 2016 I take no credit for the fantastic results reported here. They are entirely due to the highly professional staff in Oxford University Innovation.

Looking ahead, I am convinced that, with the right support, greater economic and societal impact from university IP is possible. Neil Woodford, probably the UK's most successful investor, has observed that backing our world-class science is crucial for the UK to hold its position as a centre of technological innovation. The team at OUI now looks forward to working with researchers, industrialists, government and others to ensuring that we achieve our full potential.

HIGHLIGHTS

All the major metrics of activity grew, making this another record-breaking year. In April we celebrated the milestone of a cumulative total of £100m raised in first round investment for spinouts from Oxford.

Our financial reporting year now ends in July to align our accounts with those of our parent company, the University of Oxford, in accordance with new financial reporting standards for the UK and Ireland, FRS102.









This report covers a 16 month period to accommodate this adjustment from our previous financial year.



Life-saving Instruction for Emergencies (LIFE) is developing tools to train healthcare workers using gaming platforms.
Credit: John Cairns



£100M RAISED IN FIRST ROUND INVESTMENT
FOR SPINOUTS FROM OXFORD.

| | | 2016 Apr15-Jul16 | 2015 Apr14-Mar15 |
|---|---|---------------------|---------------------|
| REVENUES 2015 included exceptional revenue arising from the assignment of IP to Sequenom Inc. |  | £22.2m | £24.6m |
| DISTRIBUTIONS Returned to Oxford University and its researchers |  | £9.6m | £13.6m |
| TRANSLATIONAL FUNDING Awarded to Oxford researchers with OUI assistance |  | £14m | £25m |
| INNOVATION CONSULTANCY Consultancy days delivered |  | 3535 | 2686 |
| PATENTS Patents and applications under OUI management |  | 2873 | 2490 |
| DEALS |  | 855 | 597 |
| ACADEMIC CONSULTANTS Number utilised |  | 418 | 305 |
| SPINOUTS |  | 21 | 5 |

HUMANITIES



Credit: David Iliff
flickr.com/photos/diliff

With increased focus on supporting colleagues in the Humanities Division during the year, Oxford University Innovation staff from both the Licensing & Ventures and the Consulting Services teams supported innovative projects with social and economic impact.

A number of these engagements were highlighted in a brochure designed to demonstrate the breadth of innovative activity from the division, with further detail on our website to assist and encourage other researchers interested in utilising our services.

'Talkabout' Guides for museums and country houses are being created by a team of graduate students from the division. Traditional paper guides are transformed into apps which provide users with an opportunity to take self-guided, conversation-based tours through museums and heritage sites. Oxford University

Innovation provided the team with guidance and support on all the aspects of setting up a business, including planning and legal advice, as well as providing training workshops covering everything from directing to accounting.

OUI put in place a framework for engagement between the Faculty of English and the Royal and Derngate Theatre in Northampton, following the conclusion of a Knowledge Exchange Fellowship to run script writing workshops. A services agreement to allow flexible ongoing support, whilst ensuring that necessary legal protections were in place, was arranged by Consulting Services.

Preparation started for a Humanities Innovation Challenge Competition, developed with The Oxford Research Centre in the Humanities (TORCH), to encourage researchers, students and staff to develop entrepreneurial ideas which could potentially enrich their own work, communicate to a wider audience, and develop new perspectives. This competition has led directly to opportunities for OUI staff to assist colleagues in the Humanities Division, and will be repeated.



OXFORD UNIVERSITY INNOVATION PROVIDED THE TEAM WITH GUIDANCE AND SUPPORT ON ALL THE ASPECTS OF SETTING UP A BUSINESS, INCLUDING PLANNING AND LEGAL ADVICE, AS WELL AS PROVIDING TRAINING WORKSHOPS COVERING EVERYTHING FROM DIRECTING TO ACCOUNTING.



MATHS, PHYSICAL & LIFE SCIENCES



THIS YEAR MARKED THE FIRST SPINOUT INVESTMENT FROM OXFORD SCIENCES INNOVATION, ESTABLISHED TO INVEST IN SPINOUTS FROM THE UNIVERSITY AND THE OXFORD CLUSTER.

Fourteen spinouts from this division alone, mostly from the Departments of Engineering, Chemistry and Computer Sciences, are evidence of an extremely successful year. Technologies from the division are poised to make significant contributions to global health and wellbeing.

The Zoology Department – the origin of NaturalMotion, an earlier spinout which exited for \$527m – this year provided the expertise that went into Animal Dynamics (AnDy), which is creating machines incorporating evolutionary optimisations observed in nature. By observing and understanding how creatures move, AnDy is developing highly efficient machines that can be manoeuvred and propelled through the air, on land and through water.

Another Zoology spinout, Oxitec, was sold for \$160m to Intrexon in August, having established the safety and efficacy of its technology to control the *Aedes aegypti* mosquito which carries dengue. Later in the year the company gained widespread attention when the US FDA approved the release of Oxitec's modified mosquitos, which can also spread the Zika virus, for a field trial to control the mosquito population in Florida.

Autonomous vehicle technology was trialled by 2014 spinout Oxbotica in driverless pods in Milton Keynes and later in the GATEway project controlling a fleet of autonomous vehicles in London. The ability of Oxbotica's software to make vehicles learn and become 'self aware', hence not dependent on constant reference to GPS etc, ensures that the system can be used anywhere in the real world – with its roadworks, ever-changing weather conditions etc.

This year marked the first spinout investment from Oxford Sciences Innovation (OSI), established to invest in spinouts from the University and the Oxford cluster. OSI's first investment was in Oxford Flow, which develops precision engineered products. Founder Professor Tom Povey identified the need for a flow regulator valve while researching jet engines for clients such as Rolls Royce: "I was working with high flow rates of compressed gas that, for reasons of efficiency and safety, needed to be regulated," he said. "Regulators available on the market were not precise enough so I devised a completely new method of controlling gas and developed a series of products based on this technology." The resulting valve regulates the flow of gases and liquids in industrial processes, is 80 per cent lighter than existing products and can handle over ten times the volume with a high degree of precision and control.

OSI went on to invest in a further eleven spinouts in the year.



MEDICAL SCIENCES



WHAT WE LEARN FROM THOSE PATIENTS THAT ARE DOING REALLY WELL, WE CAN TRANSFER ONTO OTHER PEOPLE – AND THAT’S WHERE I THINK THE PROMS PROGRAM IS COMPLETELY REVOLUTIONARY.

Dan Wellings, Head of Insight and Feedback at NHS England, talking about the Oxford Hip and Knee scores used in the National Patient Reported Outcome Measures (PROMs) program.

A record amount of investment in new ventures from the Medical Sciences Division went into seven spinouts, with OUI managing the process and establishing ongoing consulting deals for the academics involved. The first round investment raised - £25m - is unprecedented, and led to a Financial Times article highlighting a record round of fundraising for UK academic spinouts.

OUI's support for the division went far beyond traditional licencing and company formation. We concluded follow-on licencing deals with existing spinout companies Oxford Cancer Biomarkers, Nightstar and Oxehealth allowing them to incorporate additional University IP into their products.

Nightstar, which specialises in developing gene therapies for hereditary sight-threatening disorders, raised an additional \$35m.

Also addressing eyesight, OxSight's smart glasses, which utilise a camera system and computer vision algorithms to detect and highlight objects, was spun out with the support of a Chinese angel investor.

2003 spinout Summit Therapeutics, a drug discovery and development company advancing therapies for Duchenne muscular dystrophy ('DMD') and Clostridium difficile infection, signed a multi-year extension of its exclusive strategic alliance with the University, having achieved its first research milestone.

Immunocore, an immunotherapy firm which has its origins in 1999 spinout Avidex, secured the largest European life sciences fundraising round ever at \$320m. The company's work on cancer-focused immunotherapies based around genetically-altered T cells has secured agreements with several high profile pharmaceutical firms, and this round attracted major investors including Eli Lilly and Woodford Investment Management.

The Clinical Outcomes team, working in close collaboration with researchers within the Health Services Research Unit (Nuffield Department of Population Health), had its tenth successive record year. Of 525 licences deals from Clinical Outcomes, more than 80% were granted free of charge for academic colleagues and publicly funded healthcare use.

Clinical Outcomes provided guidance to NHS England on the deployment of Patient Reported Outcome Measures (PROMs) in digital format – using the patient's own smartphone, tablet and PC's to monitor and measure their own health outcomes – as an important step towards patient-centric care in the NHS.

SOCIAL SCIENCES



One of the distinctive features of the Social Sciences Division, at least from the perspective of Oxford University Innovation, is that it is the source of more entrants to the Startup Incubator than any other division. The Incubator supports members and ex-members of the University of Oxford wanting to start or grow entrepreneur-driven ventures that are not university spinouts.

Startup Cycle.land was co-founded by Agne Milukaite who previously had completed her Masters in Migration Studies at Oxford prior to founding Cycle.land in 2016. The company provides a platform for sharing bikes, and, after two months in the Incubator, launched in Oxford. Rapid adoption of the service, with hundreds of bikes being rented out by Oxford locals, led to a crowdfunding campaign for expansion with a goal of £100K. The success of this campaign – which ultimately raised over £400K – is allowing Cycle.land to introduce the service into other towns and cities, initially in the UK but with plans to expand worldwide.

Consulting Services at OUI provides support to academics in the Division with opportunities to engage in complex projects locally, nationally and internationally.

This year HS2, the UK's major infrastructure project to provide a high-speed railway linking midlands and northern cities to London, provided an opportunity for academics from the Environmental Change Institute to assess the possible impacts of climate change in interdependent systems alongside the track. Consulting Services facilitated the commercial arrangements, enabling academic consultants to develop and implement a methodology that provides HS2's designers and engineers with a holistic understanding of risk attributable to other interdependent utilities such as electricity, gas, water etc.

Back in 2012 Onfido exited the Incubator with a revenue generating service, using machine learning, that offered identity verification for recruitment. CEO Husayn Kassai had studied Economics and Management, and has subsequently led the company to expand internationally. During the year it raised a Series B round of \$25m, hit a milestone of 1000 customer engagements, and expanded its operations to the UK, Europe and the US.

Looking to the future, innovative ideas from the Social Sciences and Humanities Divisions need funding to progress despite generally lacking intellectual property assets. This means that they are not well served by the commercialisation approaches used for projects from the 'hard sciences', and so we started to prepare the launch of a new Investment Forum to introduce seed investors to idea-based ventures, to address this gap.



CONSULTING SERVICES AT OUI PROVIDES SUPPORT TO ACADEMICS IN THE DIVISION WITH OPPORTUNITIES TO ENGAGE IN COMPLEX PROJECTS LOCALLY, NATIONALLY AND INTERNATIONALLY.

ISIS ENTERPRISE

INNOVATION MANAGEMENT CONSULTANCY



Isis Enterprise further strengthened its international presence over 2016, delivering technology transfer training and supporting entrepreneurship in 32 countries, and hosting visitors from 25 countries to Oxford.

The Royal Academy of Engineering's 'Leaders in Innovation Fellowship' programme has benefited from Isis Enterprise expertise over several years and three rounds of activity. The programme aims to increase research and innovation capacity in emerging economies. The RAE is a delivery partner of the UK Government's Newton Fund, and aims to develop international science and innovation partnerships that promote the economic development and welfare of developing countries. Consultants from Isis Enterprise provide training to coach fellows from the different Newton Fund Nations on how to present their technologies and pitch to investors. Following each residential round, the Isis Enterprise coaches and wider team continue to work with the fellows remotely to support them in developing their skills and progressing their companies into success.

Isis Enterprise provided intensive internship-based training and mentorship in research commercialisation for 75 leading scientists and innovators from Poland's top universities.

This training activity brought with it the opportunity to work closely with Cambridge Enterprise in supporting the Top 500 Innovators Programme which was created by Poland's Ministry of Science and Higher Education to help bridge the gap between academia and business in Poland. The delegates received intensive entrepreneurship training and benefited from privileged exposure to real-life Oxford University Innovation projects whilst also acquiring practical experience in evaluating and marketing technologies, managing licence agreements, and creating spinout companies.

Consultants from Isis Enterprise assisted scientists from the Industrial University of Santander in Colombia to commercialise a technique to remove water contaminants by synthesizing nanoparticles onto fibres from a by-product of Colombian coffee transportation. This relatively simple and cheap solution to local challenges using local resources provides direct benefit to society, and can encourage wealth creation from local entrepreneurs.

In September 2015, Isis Enterprise's international achievements were recognised in the presentation of a Queen's Award for Enterprise – the UK's highest accolade for business success.

From April 2017 Isis Enterprise will be renamed Oxentia – Oxford's Global Innovation Consultancy, with plans to become an independent company later in 2017.



Credit: Leaders in Innovation Fellowship programme,
Royal Academy of Engineering



IN SEPTEMBER 2015 ISIS ENTERPRISE'S INTERNATIONAL ACHIEVEMENTS WERE RECOGNISED IN THE PRESENTATION OF A QUEEN'S AWARD FOR ENTERPRISE – THE UK'S HIGHEST ACCOLADE FOR BUSINESS SUCCESS.

INNOVATION NETWORKS AND SUPPORT

OUI is active in regional, national and international networks that support entrepreneurs and innovators. The Oxford Innovation Society (OIS), which we run on behalf of the University, allows members to access and engage with world-class researchers and cross-sector peers. During the year OIS events covered diverse themes from the genetics revolution to Oxford's engagements with China.

Our annual Technology Showcase drew nearly 300 attendees to explore the theme of Healthcare Challenges in Chronic Disease. This regional event is now a regular fixture, organised with partners including the Oxfordshire AHSN and the BRC. Professor Ian Walmsley, Pro Vice Chancellor for Research and Innovation welcomed the contribution that the Technology Showcase makes, "to a new era in knowledge exchange and innovation".

Increased investor support for University spinouts has made a dramatic impact on the number of new ventures created. We welcomed the formation of Oxford Sciences Innovation in 2015. With a £350m, now £580m, fund to invest and grow spinouts from Oxford it has been a major catalyst for spinout activity, attracting nearly £27m in first round spinout funding from other investors, up from £2.2m in 2015. OSI is recognised globally as holding the largest capped university venture fund. It is no coincidence that the Financial Times reported in an Enterprise Research Centre report, "Oxfordshire has the most innovative economy in Britain... The findings... challenge the commonly held view that Britain is dependent on London for innovation and growth."

Whilst Oxford Angels Network events held locally are well attended, we also welcome opportunities to present new ventures elsewhere – for example through a joint Oxbridge Investors event, held in June 2016 at the Royal Society of Chemistry in London. By working together to organise this event we reinforce the message that research-intensive universities offer significant opportunities for investment and growth.





OXFORD INNOVATION SOCIETY EVENTS COVERED DIVERSE THEMES FROM THE GENETICS REVOLUTION TO OXFORD'S ENGAGEMENTS WITH CHINA.

ACCOUNTS

INCOME

Oxford University Innovation Ltd's total income for the 16 month period comes from sales turnover of £22.1m and the University subvention of £4.1m. Sales turnover is made up of Licensing & Ventures licensing income, Consulting Services income, Isis Enterprise consulting income and Oxford Innovation Society membership subscriptions. The subvention of £4.1m was received for technology transfer project costs, invested in the external costs of patenting inventions made by Oxford researchers. Other operating income includes an allocation of the University's Higher Education Innovation Fund award to support Consulting Services and the Startup Incubator.

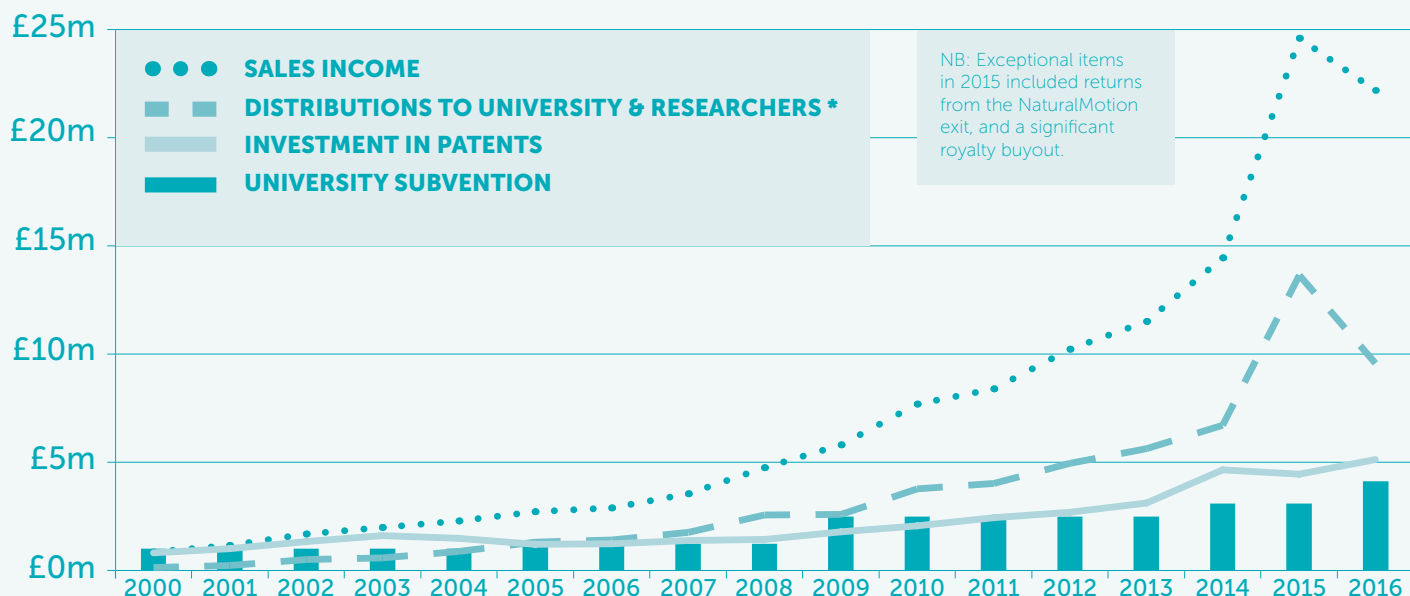
EXPENDITURE

The University subvention, invested in external patents and other project costs incurred on Oxford technology transfer projects, does not support Oxford University Innovation staff costs. Administrative expenses are the costs of running Oxford University Innovation, including our staff costs, marketing and office expenses. Oxford University Innovation distributes income from Licensing & Ventures and Consulting Services to the University and its researchers according to the University's rules; these outgoings are included in 'Cost of sales' in the accounts. Oxford University Innovation pays a portion of its taxable profit to the University under gift aid.



OXFORD UNIVERSITY INNOVATION LTD'S TOTAL INCOME FOR THE 16 MONTH PERIOD COMES FROM SALES TURNOVER OF £22.1M.

PERFORMANCE FROM 2000



PROFIT & LOSS ACCOUNT

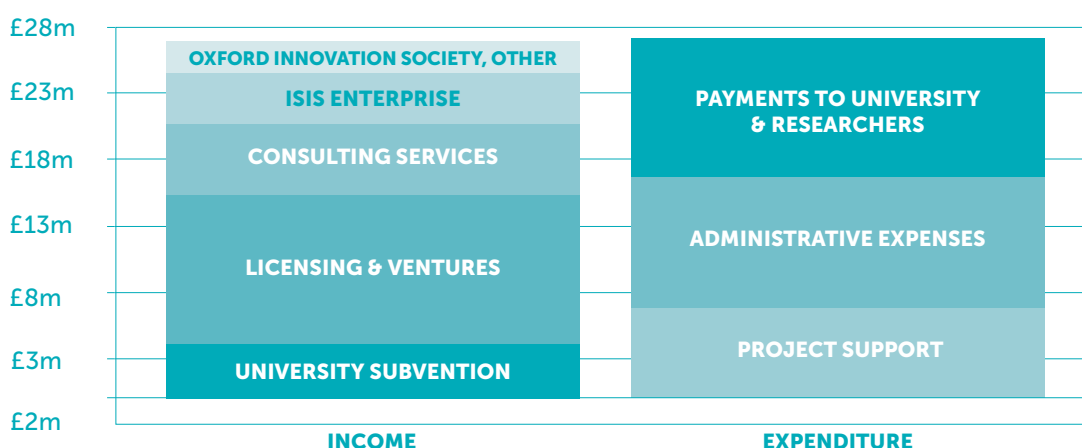
| Year to 31 July | 16 Months to 31 July 2016 | 12 Months to 31 March 2015** |
|--|---------------------------|------------------------------|
| | £ '000 | £ '000 |
| | 16 Months | |
| Turnover | £22,193 | £24,584 |
| Cost of Sales | -£16,376 | -£18,955 |
| Gross Profit | £5,817 | £5,629 |
| Administrative Expenses | -£9,832 | -£6,131 |
| Other operating income | £4,735 | £3,542 |
| Share of losses in Joint Ventures | -£107 | -£31 |
| Operating profit | £613 | £3,009 |
| Other interest receivable | £21 | £12 |
| Profit on ordinary activities before gift aid and taxation | £634 | £3,021 |
| Gift aid payable to University of Oxford | -£902 | -£2,481 |
| Profit / loss on ordinary activities after gift aid donation and before taxation | -£268 | £540 |
| Taxation | -£21 | -£36 |
| Profit / loss on ordinary activities after gift aid donation and after taxation | -£289 | £504 |

**Amounts restated in accordance with FRS102

Oxford University Innovation Ltd is wholly owned by the University of Oxford. Oxford University Innovation (Hong Kong) Ltd is a wholly owned subsidiary of Oxford University Innovation Ltd.

This is the first year the Group has presented its results under FRS102 the Financial reporting standard applicable in the UK and Republic of Ireland. The last financial statements prepared under the previous UK GAAP were for the period ending 31 March 2014, and the date of transition to FRS102 was therefore 1 April 2015. The Group accounts for 2016 are for a 16 month period to 31 July 2016 as part of the adoption of FRS 102 which encourages subsidiaries to prepare their accounts on the same reporting date as their parent.

INCOME & EXPENDITURE



BALANCE SHEET

| | 16 Months to 31 July 2016 | 12 Months to 31 March 2015** |
|-------------------------------|---------------------------|------------------------------|
| | £ '000 | £ '000 |
| Fixed Assets | | |
| Tangible Assets | £330 | £0 |
| Investments | £2,432 | £2,224 |
| | £2,762 | £2,224 |
| Current Assets | | |
| Debtors | £6,708 | £3,483 |
| Cash at bank and in hand | £2,068 | £5,335 |
| | £8,776 | £8,818 |
| Creditors | -£7,147 | -£6,663 |
| Net Assets | £4,391 | £4,379 |
| Capital & Reserves | | |
| Called up Share Capital | £1,750 | £1,750 |
| Revaluation Reserve | £1,740 | £1,500 |
| Profit & Loss account | £901 | £1,129 |
| Total Capital Employed | £4,391 | £4,379 |

SPINOUT COMPANY SHAREHOLDINGS

Shares in Oxford University spinout companies established by Oxford University Innovation Ltd are owned by the University of Oxford, and not by Oxford University Innovation Ltd. They do not therefore appear in the Oxford University Innovation Ltd accounts either as assets on the balance sheet or as income from realisations of shares or the payment of dividends from shares. The total value of the University's shares in its spinout companies at 31 July 2016 was £81.5m.

Oxford University Innovation owns minority shareholdings in startup companies which have been supported by the Oxford University Startup Incubator, valued at £1.9m in accordance with the International Private Equity and Venture Capital Guidelines.

Note*

Oxford University Innovation distributes these sums to the University and individuals. The University in turn distributes these sums to individuals, departments, and central accounts according to its standard procedures.

The directors are responsible for the maintenance and integrity of the corporate and financial information included in the company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial information differs from legislation in other jurisdictions.

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Please see the Oxford University Innovation website for locations and details of our global Associates

