



Annual Review 2005-2006

cambridge **enterprise**  
commercialising University technology





## Overview – working for a better world

The ultimate outcome in technology transfer and knowledge transfer is a better world. Products and services based on university research improve our quality of life, through better medical cures and advances in computing for example. They also support a vibrant economy through creation of new businesses and growth in existing ones. Much must happen to achieve this. The achievements and activities we share in this report represent some of the steps towards our “better world” objective.

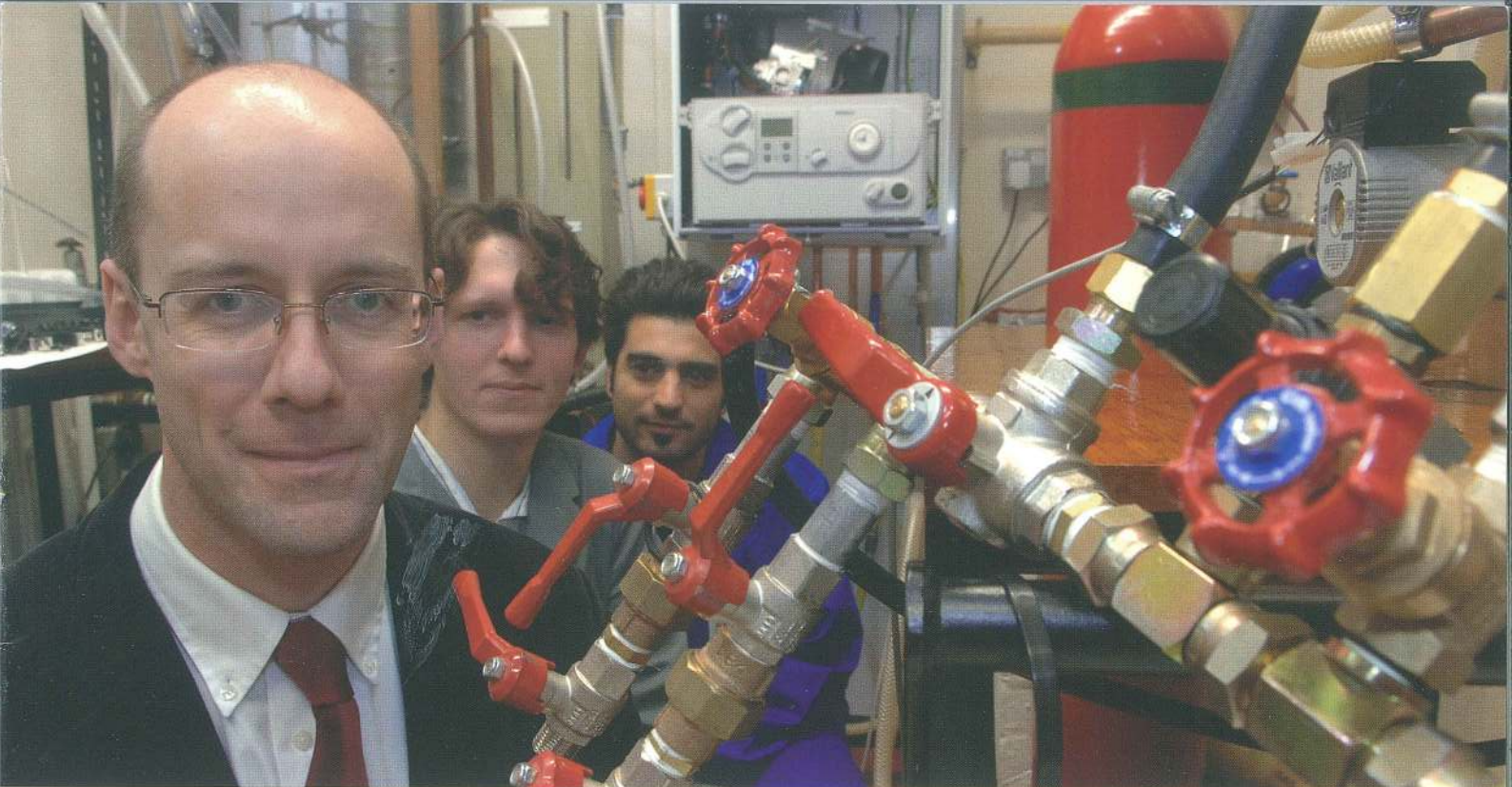
At Cambridge our focus is on the innovative researchers exploring lines of scientific inquiry, solving problems and considering how to best to share their discoveries. These discoveries can lead to patents and licences – we know that a product has reached its public if we are receiving royalties and we know that knowledge transfer has been achieved if a consultancy project has been completed. Importantly, these returns are reinvested in the process of innovation at the University of Cambridge with £5.3m of the £6.2m in technology and knowledge transfer turnover in 2005/06 being returned to departments and academics.

This is a long-term investment – the royalties we report this year may be based on ideas that were disclosed as far back as 10 years ago. The monies we return to departments this year may seed ideas we will see as new discoveries in the future.

It is a process that demands a long-term view, but also immediate and constant attention. This attention is provided by the Cambridge Enterprise team pictured on this page. These are individuals with industry as well as academic experience, dedicated to seeing important ideas reach the public and acting as a business resource for our world class academics. I’m new to this team, having arrived towards the end of the 2005/06 fiscal year, but I have grown quickly to appreciate their accomplishments and their commitment to seeing that University of Cambridge innovations change the world for the better.

Teri F. Willey  
Chief Executive





## Enterprise champions – Support for researchers

Enterprise Champions play an important role in providing Cambridge Enterprise with an essential communication channel to and from the University's departments. The Champions meet regularly to discuss topics related to commercialising technology and to discuss Cambridge Enterprise activities and progress. These meetings also provide an opportunity for the Champions to share departmental research priorities, "hot" technologies and critique Cambridge Enterprise performance.

Our Champions have a wide range of backgrounds. Their experience ranges from undertaking collaborative research with companies to commercialising new technology, starting companies, fund-raising, and balancing the demands of academic research and business.

Within their departments, the Champion acts as the first port of call for researchers and academics who want advice on commercialisation routes and helps their colleagues make the most of what Cambridge Enterprise has to offer.

Currently there are fourteen Enterprise Champions:

### Department

Biochemistry  
Biotechnology  
Cambridge Engineering Design Centre  
Centre for Entrepreneurial Learning  
Chemical Engineering  
Chemistry  
Clinical Pharmacology  
Engineering  
Materials Science and Metallurgy  
Mathematics  
Pathology  
Pharmacology  
Physics  
Veterinary Medicine

### Champions

Professor Peter Leadlay  
Professor Chris Lowe  
Dr Terry Dickerson  
Dr Shai Vyakarnam  
Mr David Carter  
Professor Stephen Elliot  
Dr Anthony Davenport  
Mr Philip Guildford  
Dr Rachel Hobson  
Mr Michael Simmons  
Dr Nabeel Affara  
Dr Tai-Ping Fan  
Professor Mike Payne  
Professor Duncan Maskell





## Cambridge Enterprise Seed Funds

### Investing in a Clean Tech future

Clean Tech – technologies such as green transport, energy efficiency and clean energy production – is fast becoming the “hot” area for technology investment. A number of venture funds including the Carbon Trust, Climate Change Capital, Impax High Energy Investors and Low Carbon Accelerator are raising new funds which total in excess of £500m targeted at Clean Tech. These funds are looking for opportunities in technologies as diverse as clean power, clean transport, energy efficiency, waste recovery and water management.

Cambridge Enterprise Seed Funds (CESF) have considered a number of proposals recently in the Clean Tech sector. In fact, if the definition is stretched to include power-efficient controller chips, CESF has already invested in five start-ups from the University any of which could have a significant impact on Clean Technology in the longer term. In the cases of Enecsyst and Camridge, CESF invested alongside the Carbon Trust and expect to involve other venture firms, such as the ones listed above, as the businesses grow.

Enecsyst – founded by a team from the University's Engineering Department – is developing the “clever electronics” needed to convert the direct current created by solar panels to alternating current. The highly reliable inverters will be small enough to attach to individual solar panels ultimately enabling householders to plug an off-the-shelf solar panel directly into their domestic power supply to reduce electricity bills. So far, the company has raised £500,000 including £80,000 from CESF.

CESF will continue to invest in Clean Tech into the future hopefully encouraging others both to invest alongside and to provide follow on funding. A combination of investors leverages CESF's normal maximum of £250,000 per investment. As well as funding, Cambridge Enterprise provides support by helping to build management teams and by introducing relevant venture funds to the founders.





## Business Creation

Business Creation activities throughout the University have continued to thrive with approximately 28 start-up ventures assisted during the year and many more academics attending workshops and surgeries.

Business Surgeries have been fully booked almost every week showing the appetite for expert advice by aspiring University entrepreneurs. Cambridge Enterprise has also provided a series of events that cater to the varying needs of start-ups from the idea stage through successive stages of company growth and fundraising. For idea-stage inventors, we are planning a series of mentoring breakfasts to bring together academics with early stage technology ideas and industry-experienced mentors and business angels covering a whole host of technology sectors within the high-tech and biotech markets. For start-ups who have already reached early stage milestones, highly focused Investors' Forums are held to showcase investment-ready University start-ups to an audience of business angels, venture capitalists and other institutional investors.

Cambridge Enterprise manages a flexible short-lease incubator facility to encourage the creation of new businesses. The incubator supported nine tenants this year, including XenSource who graduated to bigger accommodation in Cambridge. Other tenants include Hypertag which expanded rapidly throughout the year.





## Consultancy

The turnover from consultancy through Cambridge University Technical Services Ltd ("CUTS") nearly doubled from £1.58m in 2004/05 to £2.93m in 2005/06. The size and content of the 103 new projects this year and nature of the clients continues to be as diverse as ever. Engineering, the Clinical School, Applied Economics and Land Economy were the major suppliers of expertise but the range of departments engaged in consultancy work is growing and includes many science and technology departments, the Judge Business School, as well as Criminology, Geography, and Philosophy. Not only is the content diverse but the work is truly international, providing services to clients in Australia, Asia, North America and Europe.

The managed service that Cambridge Enterprise offers the academic community has been greatly enhanced by the appointment of Jonathan Bailey as its first full-time Associate dedicated to consultancy work. Jonathan, a geologist by background, brings a wealth of experience of finance and commercial work gained in the engineering consultancy, building and metals and mining sectors, to the role.

A notable characteristic of Cambridge's knowledge transfer through consultancy is that the majority is bespoke work for external clients by individuals with unique and world-leading expertise. The projects are carefully tailored to meet the individual client's needs while ensuring both the consultants' and the University's interests are protected. Some large projects are carried out by multifunctional teams using major physical facilities, where the University can offer a combination of unique equipment and expertise unobtainable elsewhere; crucially, the content of such work enhances the University's core business of research and teaching.

For commercial and other reasons, an increasing number of large consultancy projects are being handled through the CUTS service than as standard research collaborations. This work has potential for future development and should enhance the University's capacity to interact with industry in a flexible and effective way.

A growing number of companies, government bodies and other organisations are turning to academics to provide them with expert advice and knowledge to solve their problems or to act as expert witnesses. The transfer of knowledge generated within the University into areas where it will achieve commercial and public benefit is one of the key objectives of Cambridge Enterprise and one of the fundamental missions of the University – to contribute to society through the pursuit, dissemination, and application of knowledge.





## Marketing

A central role for Cambridge Enterprise is using commercial channels to distribute ideas for the benefit of society. The Marketing group at Cambridge Enterprise facilitates partnerships with companies and investors to help bring emerging ideas to market.

During the year key events bring together the innovation community to increase awareness of Cambridge Enterprise's commercialisation activities. Audiences include companies, professional service firms, business angels, venture capitalists, corporate ventures, mentors and advisors.

Cambridge Enterprise hosts an annual celebration – 'Ideas to Reality' – to honour the academics for whom we have closed deals to commercialise their innovations during the year, together with their commercialisation partners who helped make it happen.

Our sixth Annual Gala was held at the Royal Courts of Justice. The evening brought together 500 guests representing venture capital, business angels, and professional service providers. The highlight of the evening was a series of 55 second "elevator pitches" by participants in five university Business Plan Competitions. Competition teams from joint hosts University of Cambridge and MIT E-Center pitched alongside teams from Imperial College, London, University of Manchester and University of Oxford.

March 2006 saw the third celebration of the Cambridge Biotechnology Cluster where the updated cluster map displaying over 200 biotechnology companies and University departments in the Cambridge area was unveiled to academics and representatives from life science organisations. The Horizon seminars, lead by Research Services Division and co-branded with Cambridge Enterprise, presented four annual seminars focused on emerging technology from the University. Recent seminars have focused on R&D Beyond Einstein, Green Frontiers, Neuroscience & Society and Risk, Threat & Detection.

Growing international interest in Cambridge's knowledge transfer activity has resulted in the creation of the Cambridge Summer Forum and Winter Forum. These events are an opportunity to exchange ideas on commercialising technology, centred on day or half-day presentations from Cambridge Enterprise staff.





## Annual statistics for 1 August 2005 – 31 July 2006

### Inventions and patents

Number of Invention Disclosures	2005/06
Number of UK priority patent applications filed	58

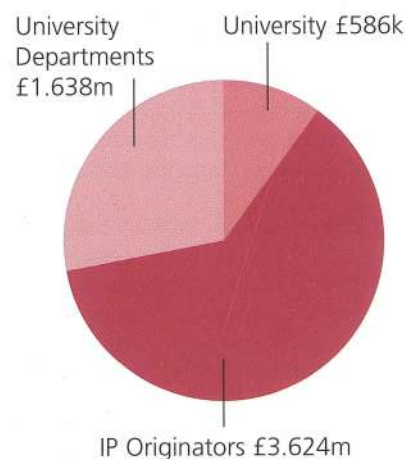
### Agreements

Licences and options granted	61
Spin-outs	Cambridge Innovision
	E-Stack
	OrthoMimetics
	Psynova
New start-ups assisted	28
Consultancy contracts	82

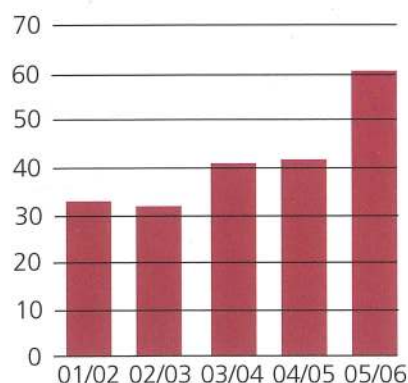
### Income/costs

	2005/06	2004/05
Consultancy Income	£2.93m	£1.58m
Licence Income	£3.33m	£2.71m
Patent reimbursement	£294k	£485k
Patent Costs	£626k	£689k

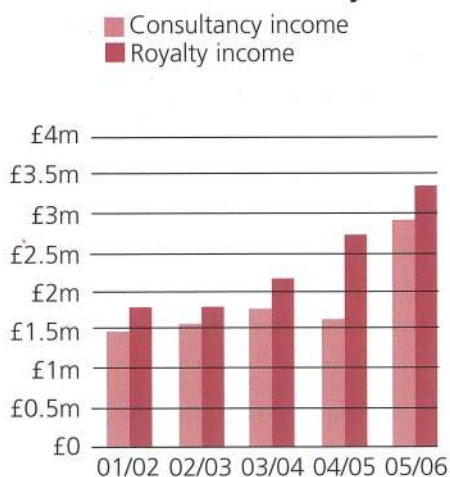
### Returns to Stakeholders



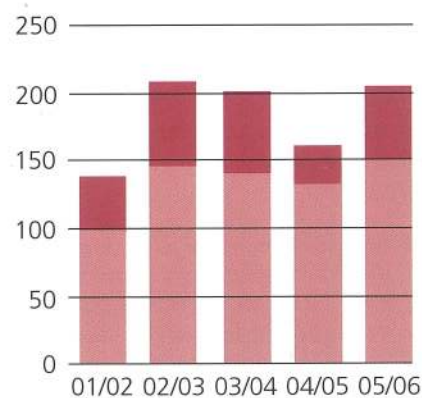
### Number of commercial deals completed over the last five years



### Income over the last five years



### Invention disclosures over the last five years







## Looking Ahead

In December 2005 the University adopted a revised intellectual property policy providing clarity to academics, students and research partners about ownership of intellectual property created during the course of research activities at the University. This clarity is critical in supporting the distribution of ideas through commercial channels and in capturing value for the academics, departments and the University. Cambridge Enterprise is striving to implement the new policy to provide flexibility, choice and enhanced service to our academics. And with this aim, the organisation has taken another step in its evolution.

Cambridge Enterprise will be established as a wholly-owned subsidiary of the University of Cambridge. The new structure will support our role as agents for academics who are interested in seeing their ideas reach the public through commercial channels. The new structure will provide financial transparency and a foundation for improved operations important in capturing value for our stakeholders.

With clarity in objectives, policy and structure Cambridge Enterprise can then move forward as a trusted business resource for academics: we work alongside the best minds in the world to find the best partners to take their ideas forward and we have one unified aim – a better world.



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