Established in 1970 by
Trinity College Cambridge

Winter 2007

# catalyst

CAMBRIDGE SCIENCE PARK NEWSLETTER

## In this issue:

# New arrivals

## Cambridge Biostability

CBL has developed a revolutionary technology which formulates vaccines and other biopharmaceuticals into ready-to-inject stable liquid suspensions requiring no refrigeration or reconstitution. CBL's technology offers significant advantages over existing vaccines by eliminating the cold chain, reducing the cost of administration and increasing vaccine shelf life and effectiveness in the field.
**www.biostability.com**

## Cambridge Temperature Concepts

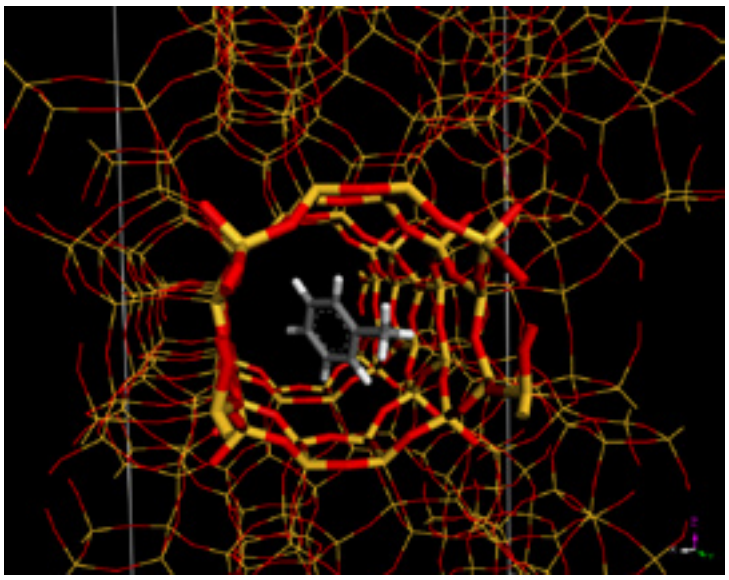
CTC has developed and is testing a new device for ovulation detection in couples considering in-vitro fertilisation. The innovative continuous temperature monitoring technology underlying this has applications ranging from conception and contraception to general hospital medical temperature measurement. Measuring temperature continuously will eliminate the inconvenience and inaccuracy that couples currently face in detecting ovulation to assist natural conception.
**www.temperatureconcepts.com**

## ChiBio Informatics

ChiBio Informatics Limited provides bioinformatics services, drug discovery R&D project services, and consulting services to the biotechnology and pharmaceutical industries. It seeks out new opportunities for developing with a mix of partners, including technology specialists and venture backers for translational medicine.
**www.chibio.com**

# The analytical approach

## Scientific data management software from Accelrys



*With improved research techniques producing ever-increasing volumes of scientific data, Accelrys is a global leader in software solutions which help R&D operations maximise value from their results. Catalyst spoke to Bill Taylor, Vice President, Corporate Development and Marketing, to find out about the Accelrys story and its European Headquarters on Cambridge Science Park.*

"We call it Scientific Business Intelligence software, which is used by biologists, chemists, material scientists and IT professionals to help them in product design as well as drug discovery and development," Taylor explains.

*"A single run of high-throughput screening will usually generate a terabyte worth of data – that's 1024 gigabytes or one trillion bytes"*

"We work across a broad range of industry areas including pharmaceuticals, biotech, industrial chemicals, automotive and personal care. Companies in these fields are often experiencing problems with the sheer volumes of data which their research is generating.

"Better instrumentation, automated systems and high-throughput screening methods are all part of the reason why. For example, one single run of high-throughput screening will usually generate a terabyte worth of data – that's 1024 gigabytes or one trillion bytes. Faced with these kinds of volumes, finding what's useful from your results can be like looking for a needle in a haystack."

The software developed by Accelrys provides users with a powerful array of tools to make such a search not only quicker but also more valuable. Integration, mining, analysis, modelling and simulation are only a part of the solution. Once the relevant information has been extracted, an integrated web interface allows users to present findings in a range of value-added formats, from executive summaries to high-end three-dimensional graphic visualisations.

"The ultimate purpose is to provide companies with a greater insight into what their data means so that they can make better decisions as a result," adds Taylor.

This NASDAQ-listed public company (symbol: ACCL) has its Corporate Headquarters in San Diego, California, working alongside its European Headquarters on Cambridge Science Park, a Center of Excellence in Bangalore, India, and sales/support offices in Boston, Paris, Tokyo and Bangalore.

Accelrys itself was founded in 2001, bringing together five specialist software companies and more than 25 years of combined commercial and scientific experience within the field. Over a relatively brief period, the company has grown to achieve an annual turnover of $80 million and employ nearly 400 people worldwide, with 150 PhD scientists helping to maintain and develop the Accelrys product platform.

With a quarter of its total workforce based in Cambridge, Bill Taylor sees the location as crucial to the company's ongoing success. "Our relationship with Cambridge goes back a long way," he comments.

*"For each dollar invested in modelling and simulation, a return of between $3 and $10 can be expected back"*

"One of the companies from which we were founded [Molecular Simulations Inc.] had previously acquired Cambridge Molecular Design, which was the first company to offer modelling tools for crystalline materials, enabling study of systems like semiconductors, ceramics and many catalysts. We've been on Cambridge Science Park since July 2002 and this site is responsible for our materials science and chemical informatics research. There's a really strong scientific ecosystem in Cambridge which makes it a great place for us to be."

With a blue-chip portfolio of clients and ever more pressure on R&D departments to provide commercially valuable results, Accelrys certainly seems well placed to continue its upward trajectory. White papers looking at the use of modelling and simulation tools within both pharmaceutical development and materials science suggest that for each dollar invested in such techniques, a return of investment of between $3 and $10 can be expected back.

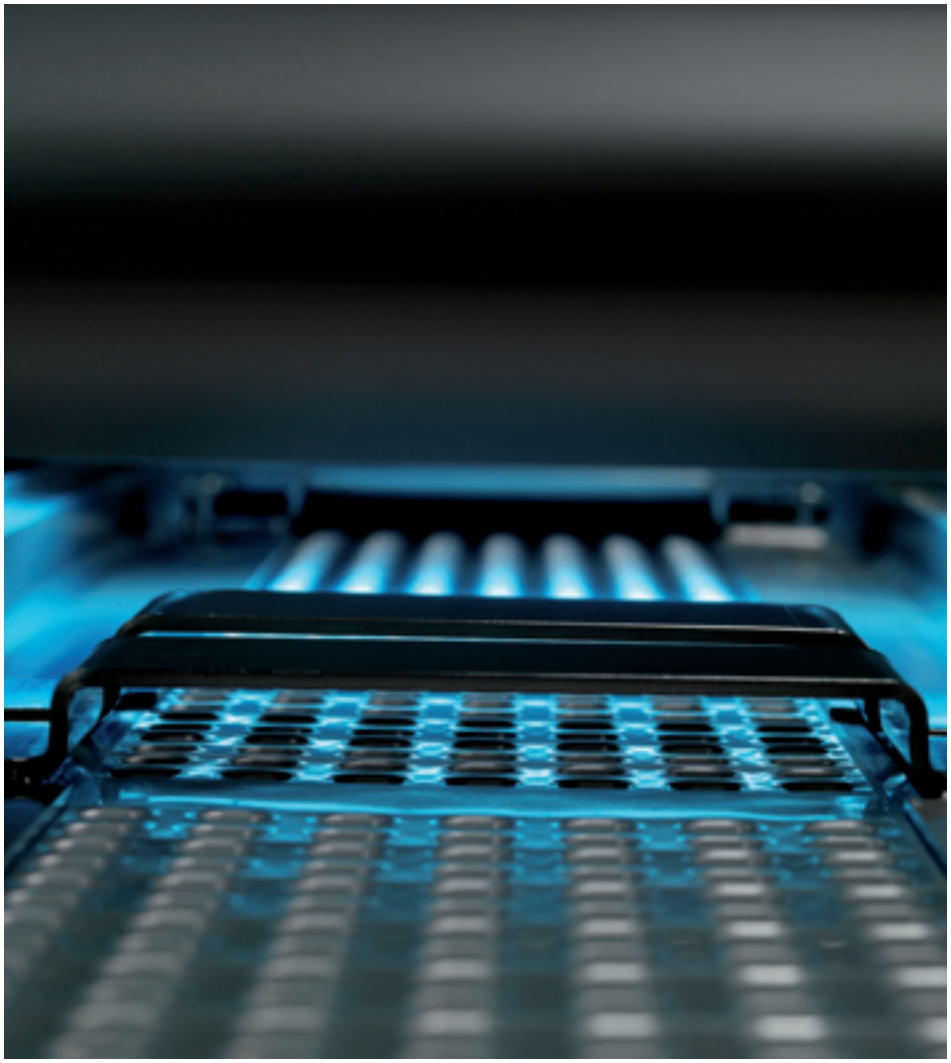
"We've got a strong position, but we're always looking to broaden our penetration in our existing markets," adds Taylor. "Two key growth areas for us are materials modelling and simulation and chemical informatics. It's an exciting time for us as a company and there's a lot more we feel we can achieve."

www.accelrys.com

**Insert:** a polymer chain helically wrapping a carbon nanotube. The structure was optimized with Materials Studio's Discover and the COMPASS force field

**Background:** Materials Studio's Adsorption Locator was used to identify the most stable configuration of toluene adsorbed in a BEA-zeolite pore

# Vectura's inspired inhalation



*Vectura, a world leader in inhaled medicines, runs a key element of its operations from Cambridge Science Park. Catalyst talked to Director of Device Development Stephen Eason and Director of Investor Relations and Corporate Communications Julia Wilson to find out more.*

The delivery of drugs via inhalation could prove cheaper, more convenient and provide a more rapid onset of effect across a wide range of conditions from respiratory disease to Parkinson's disease. The realisation of this untapped potential has been the driving force behind the growth of Vectura Group plc, a company listed on the London Stock Exchange (symbol: VCE) with a market cap valuation of £225 million and currently the UK's largest biotech.

Bringing together expertise from across different fields, Vectura is developing a broad pipeline of products that use its proprietary inhaler device and formulation technologies for the treatment of respiratory and neurological diseases. It also has a portfolio of revenue-generating products marketed by partner companies for the treatment of conditions including asthma and haemophilia A, helping to offset the cost of Vectura's own pre-clinical and clinical stage product development programmes.

"Like many larger pharma companies, the history of Vectura is actually quite complex!" says Eason of the company's chronology. "Our origins go back to a group of scientists and academics working on inhaled medicines at the School of Pharmacy at the University of Bath. Seeing the potential of this technology, the company was founded in 1997 through investment by Merlin Biosciences and reversing into an existing Cambridge-based company called Vectura.

*"We're trying to create solutions which deliver drugs more efficiently and which are also more cost effective"*

"However, the Cambridge part of the Vectura story begins more fully in 2002 when a group of people – including myself – working on inhaler-device technology at Cambridge Consultants left the company to form Vectura Delivery Devices, in return for which Cambridge Consultants took a shareholding in Vectura.

"Vectura had been working on the formulation of dry-powder drugs which could be inhaled; at Cambridge Consultants we were looking at the technology of inhaler devices – there was an obvious synergy which brought us together to create additional value in an integrated product pipeline."

Initially working within Cambridge Consultants' facilities, Vectura Delivery Devices moved out onto its own premises on Cambridge Science Park in 2004. This site now complements the corporate headquarters and research centre in Chippenham, Wiltshire, and new research facilities in Nottingham which are the result of the recent acquisition of inhaled-medicine specialists Innovata in January this year.

"Our product pipeline is broadly focused on the treatment of respiratory disease and

# technology

## The UK's largest biotech on Cambridge Science Park

neurological disease. In terms of respiratory disease, inhaler-based technologies for the treatment of conditions such as asthma or COPD [chronic obstructive pulmonary disease] have obviously been available for a long time. What we're trying to do is to create solutions which deliver drugs more efficiently and which are also more cost effective than existing alternatives.

"The other core area of our work outside the respiratory field is focused on using inhaler-based technology to provide systemic delivery of drugs via the lungs for the treatment of neurological conditions such as Parkinson's disease and migraine, and also some non-neurological conditions such as erectile dysfunction or diabetes.

"In these areas, the drugs we are working with are not new as such; they may be currently delivered orally or via injection, for example. By delivering these existing drugs via inhalation, we're looking to offer an improved side-effect profile, to increase comfort and convenience for patients, and very often the most important advantage is to give increased speed of onset. Inhalation allows drugs to take effect very quickly, which is a major benefit for someone suffering from migraines or Parkinson's disease, for example."

The development of effective solutions combining dry-powder formulation drugs and complementary delivery devices is of course subject to a strict regulatory process which is both expensive and time-consuming. A range of partnership deals with large pharmaceutical companies has been the logical consequence, as Director of Investor Relations and Corporate Communications Julia Wilson points out.

*"Inhalation allows drugs to take effect very quickly, which is a major benefit"*

"Trials for respiratory conditions are very large and complex, certainly not something we would take on alone," she says. "For example, we partnered with Novartis for two of our core pipeline products for COPD – in fact the most recent deal was the largest of its kind in terms of milestone and royalty payments. Of course we give up some of the value of our product through partnership, but we also mitigate a major part of the risk associated with clinical trials.

"For some of our more niche products, such as those for migraine and Parkinson's disease, we are taking on the clinical trials ourselves. It's all about managing our risk profile, ensuring that we retain maximum value in our products but only where it is prudent and appropriate to do so. Our recent acquisition of Innovata also means that we receive royalty income from a portfolio of eight marketed products, both respiratory and non-respiratory, so the diversity of our overall portfolio is definitely one of our key strengths."

The delivery mechanisms developed on Cambridge Science Park by Stephen Eason and his team have played a central role in Vectura's ongoing commitment towards integrated solutions for inhaled medicines.

"We began with Aspirair™, which is the technology we originally developed at Cambridge Consultants," explains Eason. "This is a very high-efficiency device which uses compressed air to deliver around 80 to 90% of a drug dose into the deep lung and then out into the body. It's being used in trials to treat patients with conditions such as Parkinson's disease with some very favourable results, so we're excited about its potential.

"Gyrohaler™ uses a similar kind of technology but it's aimed at treating respiratory conditions such as asthma and COPD. It uses dry-powder drug formulations again, but the key advantages this time are that it is low cost, simple to use and very convenient for the patient, who would carry up to 60 doses of their relevant drug around with them in one pack."

The huge commercial potential of such products has seen Vectura increase its total revenues and gross profit by 67% and achieve a healthy cash balance of £77.5 million by the end of the last financial year. The future looks bright but Eason is certainly not complacent.

"Everything has happened pretty much according to plan so far, so obviously we're very pleased about that," he says. "Looking forward, we're hoping that we can bring certain products to market by 2010 and 2011, which is of course what it's all about. That would make us extremely happy. But we've got to have one eye on the future and keep the new ideas coming. That's what will really ensure the long-term future of Vectura."

**www.vectura.com**

Above (top): GyroHaler® multi-dose 'passive' dry-powder inhaler

Above (bottom): Vectura PowderHale® technology

Below: Aspirair® single unit-dose inhaler in use

Left: blister pack manufacture

# Uncovering the evidence

## Forensic investigation

*From faulty products to floods or fires, Hawkins & Associates has been helping companies and individuals find out exactly why something went wrong for more than 27 years. Catalyst spoke to Director Dr Andrew Moncrieff to find out more.*

As forensic investigators into countless incidents across almost every industry area, the team at Hawkins & Associates knows that each case brings something new. It may be fascinatingly diverse, but the work doesn't usually bear much relation to the stylised forensic science found on many police-related television series.

Distinctly unglamorous previous cases include an investigation at a dung-fuelled power station and looking for the cause of a power failure at a maggot farm. Other investigations have taken them to very high places (200 metres above ground level on top of the HSBC Tower at Canary Wharf to find the cause of a water leak) and also down into the depths (75 metres below sea level to investigate a fire in a tunnel between two Danish islands). What the work has in common is its relation to the law, as Dr Moncrieff points out.

"The word 'forensic' is often believed to mean 'relating to science', but that is in fact a misconception," he says. "It actually means 'pertaining to the law', so forensic investigation is any type of investigatory work which is aimed at producing material to be used in a legal dispute. You can have forensic accountancy, forensic medicine, forensic meteorology – there's no limit. The first time I gave evidence in court it was as a forensic dog-sledge driver – it was a case relating to a personal injury on a film set, and I had experience in this area after working in the polar regions."

*"The first time I gave evidence in court it was as a forensic dog-sledge driver!"*

The company was founded back in 1980 by Dr Roy Hawkins, an academic at the University of Cambridge specialising in fire and accident investigation, who saw an opportunity to begin a commercial venture in his chosen field. Initially working from one of the starter units on Cambridge Science Park, Hawkins & Associates has since grown nationwide with offices in Manchester, Bristol, Birmingham, Reigate, London, Leeds and Glasgow, employing nearly 100 people in total.

"One of our key areas of work is fire investigation, which is what the company originally specialised in," explains Dr Moncrieff. "We also do a lot of work investigating engineering loss, which involves trying to establish why a particular structure or piece of machinery has failed and which party may be responsible for this.

"We've investigated most of the major rail crashes that have happened in recent years, and we also work on numerous cases relating to escapes of water, gas or liquids, road traffic accidents, personal injuries, contamination, fraud and even crime – for example, I was involved in looking at evidence for the Soham murder trial.

"The product of our investigation is always aimed at the courts. Our clients are very often insurance companies who want to establish who is responsible for a particular event or loss, and therefore which insurer will be required to provide compensation. We fall into the category of what are sometimes called 'expert witnesses' who provide evidence to the courts on particular matters. So we have to maintain our independence and impartiality the whole way

# at Hawkins & Associates

through the litigation process, even if it means telling our clients things they don't really want to hear."

Working across such a broad range of incidents, the team at Hawkins & Associates contains a diverse array of experts. The fields of engineering, chemistry and material science are all well represented, but specialist experience in any area can prove valuable, as Dr Moncrieff goes on to explain.

"We had one person join us with experience in fire investigation and some engineering cases," he says. "However, we later found out he was a martial arts instructor in his spare time. We work on a lot of personal injury cases, so we did some research into whether insurance companies were dealing with claims relating to martial arts instructors – it turns out these are received in their hundreds every year. This is obviously a very niche market, but through pure chance this is now an area in which Hawkins & Associates can claim to have solid, practical experience – there are lots of similar examples I could mention."

*"That's where it gets interesting – is the fault in the design of the product or just a result of poor manufacture?"*

Getting to grips with incidents that mix diverse industry sectors and an infinite number of variables is obviously a challenge, but one which Dr Moncrieff is clearly confident in taking on.

"When you are investigating an engineering loss, for example, you might go into a factory in the morning to look at a machine you've never heard of which does a job you didn't even know existed," he says. "But in fact, most machinery has common elements which you learn to look for and then start to see how they fit together. By the end of the day you'll have a good understanding of how it works and what might have gone wrong."

However, it is not always the equipment which provides the most challenging aspect of a case, as Dr Moncrieff points out. "You can often encounter a considerable amount of resistance and resentment when you are sent into a company to find out why a particular product has failed. You have to deal with people who have been involved in creating, designing and producing that product, and they are not always willing to admit that something has gone wrong or pleased that someone has been 'parachuted' in to find out what it is.

"But that's also where it can get really interesting – is the fault in the design of the product or just a result of poor manufacture? That's where you need to draw on your experience and expertise as an investigator to provide the most accurate answer."

With its head office on Cambridge Science Park and operations spread right across the UK, Dr Moncrieff believes there are still lots of opportunities for Hawkins & Associates that are as yet unexploited.

"We're always keen to increase the range of the types of job that we do," he says. "Construction is a field in which we are not well represented at the moment; it's an area of fierce litigation, so it's definitely something that interests us. We don't do a huge amount of work overseas, so that's another area we'd like to build on. Forensic investigation is a field which we in the UK have great experience in and our expertise is much in demand abroad; again, it's a market area we'd like to explore further."

Nevertheless, despite the evident ambition of this home-grown success story, Hawkins & Associates has not lost sight of its founding principles. "The overriding focus for us is always to maintain the high quality of our work," Dr Moncrieff concludes. "What we do is really quite complicated and it requires great precision and accuracy. Whatever we do next, that will always be our number one priority."

**www.hawkins.biz**

Above: fractured bus axle
Left and background image: fire scene

# Shaping the learning curve

## Staying the course in software publishing with Logotron

*A pioneering publisher of educational software for more than 20 years, Logotron has adapted and diversified to establish a leading market position in the 21st century. Catalyst spoke to Marketing Director Gerald Daish about the journey so far.*

"Logotron was at the forefront of the introduction of technology into schools in this country in the early 1980s," explains Daish from the company headquarters at number 124 Cambridge Science Park.

"Essentially, the government of the day had decided that computing technology had an important part to play in UK education. One of the main activities coming to the fore at the time was a programming language called Logo, which offered children logic and problem-solving activities – looking at the idea of cause and effect, writing procedures so the computer performed certain functions and getting an outcome from it.

"The founders of Logotron managed to put the Logo programme onto a smaller memory footprint than its competitors and therefore took a significant share of the market at that time. This was at the time when schools were investing in the BBC computer system built by Acorn, and our company grew as their platform became more and more popular."

Originally founded on venture capital, the company quickly expanded from a small cottage-industry model to become an attractive investment opportunity for publishing giants Pearson, who acquired it in 1989. Twelve years later, Logotron regained its independence after a management buyout which took effect from 1 January 2001. The company now also encompasses two further brands, Widgit Software and Speedwell Computing Services, as a result of acquisitions in late 2001 and early 2007 respectively.

"The core business for Logotron itself is educational software," comments Daish. "The key here is that we're trying to help teachers to develop creativity in children because we believe creativity is really at the heart of engagement, motivation and good learning.

*"We believe creativity is at the heart of engagement, motivation and good learning"*

"One of our current best-selling products in this field is an art package which simulates real-life media on the screen so that you can mix water colours, for example, or you can paint and draw with various materials like acrylic and wax crayon and they'll behave as they do in real life. It hooks up to pressure-sensitive tablets so that you can draw or paint with a real brush on a touch screen – it's ultra-realistic and really popular in schools.

"Another big product for us is a digital video-editing package which allows you to drop text, graphics, movies, soundtracks and special effects onto a timeline in a very simple way so that children can produce their own movies, documentaries and slideshows. Teachers are showing seven- and eight-year-olds how to create their own films, which is both tremendously gratifying and also very sound educationally when, for example, they are working on a themed project."

Outside of the mainstream education market, Widgit Software provides applications for users who have special educational needs, as Daish explains. "The software is used worldwide by people who have difficulties understanding standard text because of conditions such as dyslexia or other cognitive problems, or simply through language barriers.

"It supports the written word using a schematic-based symbol set, so you can work out what a symbol may mean even though you may not have seen it before. It can be a life-changing enhancement for people who have reading difficulties, not just for children in schools but also for adults – around 50% of our market for that type of material is in the non-schools community."

*"Our ability to adapt to changes very early has been at the root of how we've been able to survive and prosper"*

The recent acquisition of Speedwell adds a new area of expertise to the company's growing portfolio: the automated scanning and processing of assessment tests. As Daish points out, it is a diversification that dovetails very neatly some of Logotron's existing product areas.

"In the early 1990s, we began looking at data-handling in schools and we came up with an idea for some software that integrated the functions of designing a survey questionnaire, inputting the data, and then sorting, searching, analysing and graphing the results.

"We put those functions together in a single package that has been very successful and still is in schools. When we'd solved that problem we realised that this was quite a challenge in the professional world too, and that people were either having to combine a lot of different pieces of software to achieve a finished survey or paying through the nose for another company to do it for them.

"So we developed a product called KeyPoint, which brings the completed function of surveys from start to finish to the desktop of the average executive, whether in marketing, personnel or some other area. We've got quite extensive markets in local government and the health sector – it appeals very much to people who are doing regular surveys to achieve best value, such as in the public sector for example.

"That side of our business is separate from our dealings with school customers – although we have some customers in education, but the products are not curriculum based. There are some great synergies with the high-end scanning of forms that Speedwell can provide, so obviously we're looking to produce some joint products in the future."

Nevertheless, despite the areas of common ground and opportunities to combine expertise, Daish sees no need to consolidate the different product lines under a common name. "Our company is really a collection of specialist brands that mean something to each individual group of customers," he says. "People recognise and trust these brands, so there's no advantage we can see in bringing them all together as one brand at this stage."

With a total of 45 employees working across three sites and an annual turnover in the region of £3.5 million, Logotron has proved a successful example of longevity over 25 years in the cut-throat market of software publishing. So what has enabled this company to stay the course while so many others have fallen by the wayside?

"I think that our ability to see and adapt to changes very early has really been at the root of how we've been able to survive and prosper," answers Daish. "Seeing that schools would adopt the second generation of Acorn machines was a big decision at the end of the 80s and in the early 90s. Then seeing the demise of that platform in schools as the PC quickly became ubiquitous – seeing that and reacting early was very important for us. And we have an edge in the shape of our Head of Development – Julian Pixton – who was once a student of that great educationalist Seymour Papert of MIT.

"I think also from a purely business perspective, being owned by Pearson taught us a thing or two, especially in the discipline of controlling our costs; I think we've been really pretty good at that over the years that we've been independent."

With the founding members of Logotron joined by representatives from Widgit and Speedwell on the Board of Directors, the company seems to have retained its original spirit of enthusiasm and adventure. "There are a lot of exciting new opportunities opening up for us at the moment – new product lines that we might pursue and new avenues to exploit our technology more widely both in the UK and worldwide. We've got a diverse skill-set here and some people with a real long-term interest in the company at its heart, so I'm confident we're heading in the right direction."

www.logotron.co.uk

Above: reproduction of Monet's 'Waterlillies (The Clouds)' by nursery school children using Revelation Natural Art software

Left (insert picture): pupils using Revelation Sight & Sound software

Left (background image): artist's work using Revelation Natural Art software

# Managing the data revolution

## Market-leading software from Datanomic

*Datanomic is the spin-out company of a former Cambridge Science Park tenant which has grown to establish a new generation of data management software solutions. Catalyst interviewed Chief Operating Officer Ian Clubb to get the inside story.*

**What does Datanomic do?**
IC: We build software that helps our clients to manage their data more effectively. It can help eliminate some of the operational and financial impacts of dealing with data of variable quality. There are lots of potential issues to deal with: maybe data has been collected a long time ago for a slightly different purpose and a new system has since been implemented; there might be problems and errors within data which has become a real difficulty over time.

So we help our clients go on a journey of understanding to find out what sort of shape their data is in and then to implement an improvement process. We identify how they improve performance through better data management and ensure that they can continue to achieve this in future by creating a protective layer around their information – then our clients can get back to doing what they do best.

**How did the company begin?**
Datanomic was spun out of another Cambridge Science Park company called Quillion back in 2001. Richard Marsh started the company using some core technology from Quillion, with the objective of building a general purpose data-quality-platform which could be applied to any form of operation, from engineering or customer data to stock or inventory.

He saw that there was an increasing need for a high-quality data-management solution for all types of operation. Previously, good data management may have been seen as "nice to have" rather than essential, but more and more businesses were now waking up to the fact that it could provide a real business advantage in terms of operational efficiency, cost savings and getting things right quicker.

*"We help our clients go on a journey of understanding to find out what sort of shape their data is in and then to implement an improvement process"*

So the company was set up with the aim of creating the best data-quality platform the world has seen. We believe we've got this with our dn:Director product, which is now in use by a wide range of blue-chip clients. More recently, we've secured venture capital funding from investors such as 3i and DN Capital and we're looking to build on what is already an excellent market position.

**So what's special about dn:Director?**
Traditional data quality systems have often used different tools for different pieces of the data management process, resulting in a stitched-together solution that is difficult to understand and manage as well as expensive to integrate into existing systems.

What's unique about dn:Director is that it takes you on a complete journey, from not knowing what your data looks like and what problems you may have, through to identifying your issues and performing any necessary cleaning, enhancement and restructuring of processes, and at the end resulting in much improved reporting and monitoring. It's incredibly flexible, scaleable and intuitive; users can get up and running within a day. This kind of capability combined with its ease of use has allowed us to become a recognised market leader.

**What kind of clients are you working for?**
We have blue-chip clients across all industries, but our core sectors are in financial services, telecoms and utilities, healthcare and manufacturing and construction. Typically, the value from our product comes when users are dealing with high volumes of data – such as a credit card company processing millions of customers' accounts – or when dealing with lower volumes of data which is of particularly high value.

**What kind of sales model do you use?**
Most of our services are provided through our extensive range of delivery partners. We are very much focused on building the best-quality software we can for solving data-management problems, so working with our partners such as BT and Accenture we can access specific industry areas in which we are not experts ourselves.

Our objective has always been to focus on our product and to train our delivery partners effectively so that they can go out and implement it easily and independently. That way we can grow the business much faster than would be possible by finding and training our own people across a wide range of industry areas. The partners give us global reach as well; they take us into the US and some places that we could not go in Europe because ultimately we are just 30 people based in Cambridge.

**What kind of licensing agreement do you offer?**
Typically we are pretty flexible. We have a number of licence models to suit different clients. Some might buy the software on an annual basis – that's particularly popular if someone is going through a big migration project and they need an extensive data clean-up exercise. This might take two years, but we often find that after this period they decide they can use it in other cases, so they come back to us for a longer-term arrangement. Others have arranged a monthly software licence – a pay-as-you-go-type scenario. This suits some people; rather than writing a large cheque, they will pay for the benefit of the product on a monthly basis.

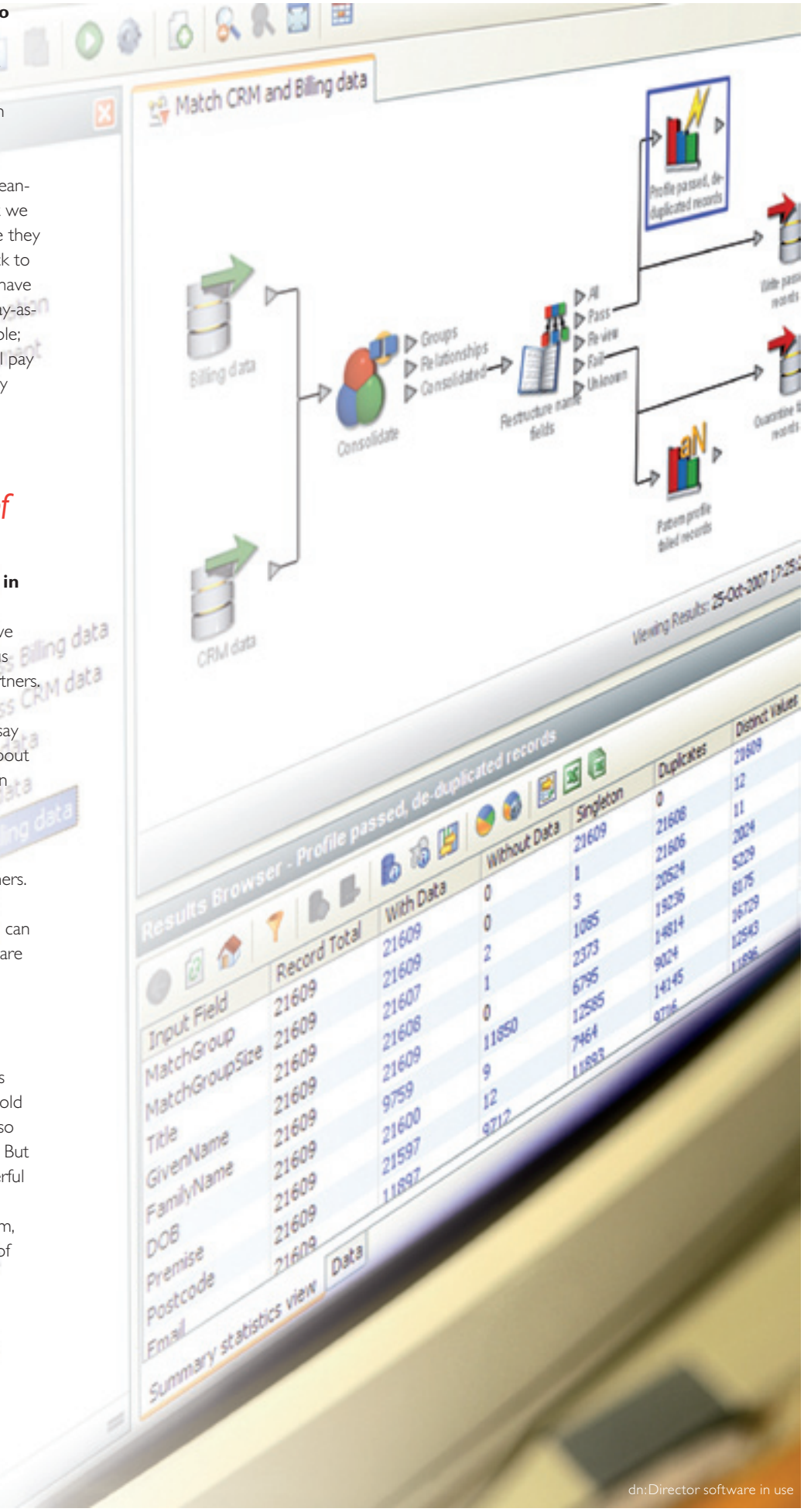
*"Now that we've achieved a leadership position, it's about getting our product in front of as many people as we can"*

**What are your plans for Datanomic in the near future?**
Of course we are always looking to improve and develop our product, but the real focus now is on growth through our delivery partners. We've spent a significant amount of time building our technology; now that we can say we've achieved a leadership position, it's about getting out there and getting our product in front of as many people as we can.

To achieve that, we need to build and strengthen our relationships with our partners. They can benefit hugely from having our technology to offer to their clients, and we can benefit from them being in places that we are not.

**How are you working to raise the visibility of your product?**
We're involved in a wide range of seminars both on our own and with partners. We hold events at various conferences and we're also involved with syndication of White Papers. But ultimately our partners are our most powerful sales tool; if they are recommending our products to potential clients who trust them, that's much more powerful than any type of marketing we could do on our own.

www.datanomic.com



dn:Director software in use

# PARKLIFE

## Competition winners move into Cambridge Science Park

Cambridge Temperature Concepts have moved into Cambridge Science Park as winners of the Cambridge University Entrepreneurs (CUE) 'Where Angels Dare' competition. The company accepted one year's rent-free office space in the Cambridge Science Park Innovation Centre as part of the winning prize.

Cambridge Science Park sponsors the annual event which gives entrepreneurs the chance to pitch their ideas to a panel of judges for the chance to win a financial prize to help get their business off the ground. Cambridge Temperature Concepts join two previous CUE Competition winners already at the Innovation Centre, Enecsys and Enval, who won the competition in 2003 and 2005 respectively.

The prize was awarded to Cambridge Temperature Concepts at the ceremony in June for their DuoFertility product, which helps women to measure temperature changes in the body. The temperature changes recorded by the device can be effective in determining the time of ovulation, assisting in planned conception. Trials for the device, which is as small as a five pence piece, are currently being undertaken.

**Above:** CUE competition winners (left to right) Shamus Husheer, Lydia Ferguson, Oriane Chausiaux and Scott Mackie from Cambridge Temperature Concepts

## New gas meter developed by Cambridge Consultants

Cambridge Consultants is helping to develop a new type of gas meter for the pre-payment Quantum system in use by one in six gas customers in the UK.

The design reduces meter construction costs by around a third and incorporates features which simplify the managing of accounts, potentially helping to reduce tariffs for the UK's 2.3 million pre-pay gas users. The new meter is called Q-Smart and is currently in production for Siemens Energy Services, which runs the national Quantum scheme.

"The broad set of skills that we brought to bear on this project allowed us to rethink the design and make major reductions in build cost, while simultaneously improving performance", said Cambridge Consultants' Martin Cooper, who led the product development.

**Above:** Q-Smart gas meter by Cambridge Consultants

## New high-throughput facility for Abcam

Abcam, a maker and supplier of antibodies to institutes, academic laboratories and manufacturers, opened a new high-throughput production facility at number 204 Cambridge Science Park in July this year.

The laboratories are some of the most advanced antibody production facilities in the world, occupying nearly 18,000 square feet, and offer high-throughput antibody purification and characterisation capabilities.

This expansion allows Abcam to increase its monoclonal antibody production significantly over the next six years, enhancing the quality, range and availability of its catalogue of antibodies and reagents.

**Above:** Abcam's new high-throughput facility

# PARKLIFE

## Drop-in session for Building 101

The redevelopment of Building 101 on Cambridge Science Park continues to make good progress, with the exciting new 80,000 square foot research and office facility due to be ready by June 2008. Tenants and other interested parties were invited to meet the developer and view the model and images of the new building at a 'drop-in' session held at the Trinity Centre on 16 November.

The development will provide Grade A office and R&D space of the highest architectural and landscape quality arranged over three levels, each floor providing approximately 27,000 square feet. A parking ratio of 1:334 ensures that there will be 240 spaces available to occupiers along with substantial covered cycle parking and good on-site shower facilities.

The building will be available to let either as a whole or in parts; for further information, please contact Jamie Green at Bidwells on 01223 841841 or at jgreen@bidwells.co.uk.

**Right:** computer-generated image of the new Building 101

## Serentis acquires Surface Therapeutics

Serentis, a biopharmaceutical company focused on the fields of dermatology, wound care and topically applied products, has acquired the University of Oxford spin-out Surface Therapeutics Ltd, which has developed a novel treatment for atopic dermatitis.

Serentis purchased the entire share capital of Surface in a deal announced on 2 October, with financial details remaining undisclosed.

Tim Sharpington, Chief Executive Officer of Serentis, said: "This acquisition supports our goal of establishing a robust, clinical-stage product pipeline. The lead compounds identified by Surface target new mechanisms for the treatment of atopic dermatitis. We will invest in the development of novel therapies for this debilitating condition where more effective therapies are required."

## CSR welcomes new Chief Executive

CSR plc welcomed Joep van Beurden, formerly Chief Executive Officer (CEO) of NexWave Inc, to the Board as its new CEO when John Scarisbrick stepped down from the role on 1 November.

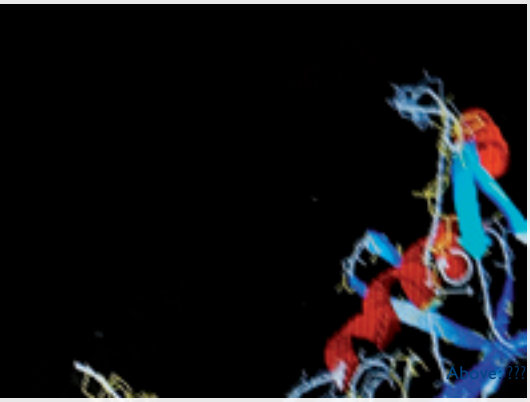
Joep, 47, brings with him ten years' experience of managing technology companies in the US and Europe and has held senior positions at NexWave Inc (a provider of embedded software solutions for the consumer electronics market), Canesta Inc (a fabless semiconductor company) and Philips Components (establishing a successful joint venture with LGE for flat-panel display technology).

Ron Mackintosh, Chairman of the Board at CSR, said: "In his career, Joep has more than demonstrated his strong strategic vision, proven leadership abilities and energy. His mix of skills and experience, including in the scaling of technology businesses and in sales and marketing, suit him ideally to the opportunities facing CSR as our wireless technologies evolve both within and increasingly beyond the mobile marketplace."

**Below:** Joep van Beurden

# Bridging the gap

## i10 brings university expertise to the business sector



*From biotech to the creative arts, i10 is an organisation focused on strengthening links between commerce and academia in the East of England. Catalyst spoke to Catherine Atkins, Business Development at i10, to find out the full story.*

Known officially as 'knowledge exchanges', i10 is one of a number of regional bodies set up in 2002 in response to the government-commissioned Lambert Report. This highlighted the lack of awareness, particularly among small to medium-sized businesses, of the opportunities for commercial research or partnership between the commercial sector and higher education institutions.

*"There is a wealth of facilities and world-class experts in our region's universities"*

"Our job is really to act as an interface between business and universities," says Atkins. "A company can come to us and explain their requirements, whether that is for a particular kind of expertise or service, or a certain kind of facility. We'll then look at what our member universities might be able to offer, and where possible we'll try to broker an arrangement between a higher education institution and the business in question."

There is a huge diversity of higher education resources which the team at i10 can link into, including more than 25,000 academics across eleven universities. Representing the whole of the region, the i10 universities are Anglia Ruskin University, the University of Bedfordshire, the University of Cambridge, Cranfield University, the University of East Anglia, the University of Essex, the University of Hertfordshire, Norwich School of Art and Design, the Open University (which has its headquarters in Milton Keynes), the Royal Veterinary College and Writtle College. Originally ten institutions – hence the name – the group was joined by the Royal Veterinary College in Hertfordshire in 2006.

*"Our job is to act as an interface between business and universities"*

"We're open to business of all sizes and from all sectors," adds Atkins, "but those that find us particularly useful tend to be smaller or medium-sized businesses which don't have dedicated in-house R&D facilities or personnel. From electron microscopes and wind tunnels to recording or graphic design studios, there is a wealth of facilities in our region's universities.

"We know that they can't necessarily provide the solutions for all questions, but we also work with a lot of other regional bodies so we can cross-refer where appropriate. We've got close ties with Business Link, the East of England Development Agency, East of England International, the Eastern Region Biotechnology Initiative [ERBI] and lots of other bodies such as manufacturing clubs or local and district councils. It's mutually beneficial – we refer people to them, and they refer others to us."

One of many examples of i10's successful partnering is with Suffolk-based tcm (r&d), a company developing solutions for vegetation management and ecology which has recently set up in Cambridge Science Park Innovation Centre. "tcm was involved in a complex research project concerning the very invasive Japanese Knotweed, obviously not something that many people have expertise in," explains Atkins.

"However, they came to us and we were able to put them in touch with Writtle College, an agricultural institution which is a partner of the University of Essex. We helped them to set up a Knowledge Transfer Partnership, which means that a graduate, recruited by advertising internationally and with in-depth knowledge of the area, will come to work at the company on a particular project for between one and three years as part of a placement paid for partly by the DTI and partly by the company itself.

"The graduate is employed by the partner academic institution but works full time on the project at the company's premises, and the business gets one day per month of academic consultancy from one of the institution's experts in this field. It's a really successful way of working and the scheme is popular across the country in all business sectors."

Aiming to raise its profile across the region and build on its existing successes, i10 is also helping businesses to find qualified candidates for their vacancies via its Grads East web-based job advertising service.

"Grads East is a website where businesses can advertise graduate-level positions free of charge," says Atkins. "It's not an agency in any sense, so employers won't get deluged with unwanted calls. There's really no catch and it's proving really popular with both very big companies and much smaller ones – go to i10.org.uk to find out more!"

www.i10.org.uk

# PARKLIFE connections

**Biology in Business (BiB)** is a Cambridge-based non-profit organisation with more than 1,700 members that bridges academic and commercial life science to promote career development and technology transfer through events, online resources and networking opportunities.

Email: info@biologyinbusiness.org
Web: www.biologyinbusiness.org

**The Eastern Region Biotechnology Initiative (ERBI)**
ERBI's objective is to facilitate and accelerate the growth of biotech in Cambridge and the East of England. Its core activities include: hosting networking events, special interest groups, training, partnering and member promotion, publications, regional and national initiatives.

Email: info@erbi.co.uk.
Web: www.erbi.co.uk

**Research Services Division (RSD)** helps to identify, secure and manage research funding for the University from regional, national and international sponsors. It encourages collaboration between the University and industry, and fosters long-term research partnerships between companies and academics for mutual benefit. RSD also organises Horizon, the leading seminar series, which provides participants with a first look at new developments in the most exciting areas of science and technology at Cambridge University.

Contact: Jo Ryan
Email: jo.ryan@rsd.cam.ac.uk
Web: www.rsd.cam.ac.uk

**The Great Eastern Investment Forum (GEIF)** is a leading UK business angel network located in Cambridge which exists to introduce ambitious, innovative companies seeking funding to business angels and other early-stage funders seeking quality investment opportunities.

Web: www.geif.co.uk

**Cambridge AWiSE (Association for Women in Science and Engineering)**
AWiSE is a multi-disciplinary membership organisation composed of individuals, businesses, associations, institutions and other organisations, all of whom share the common goal of advancing the interests of women in science, engineering and technology. The Cambridge branch holds regular meetings and events; for details see the website or get in touch.

Email: camawisemeetings@yahoo.co.uk
Web: www.camawise.org.uk

**The Cambridge Network** is a membership organisation with the mission to link like-minded people from business, finance and academia to each other and to global partners for the benefit of the Cambridge region. It helps Cambridge raise its game by delivering over 40 networking, partnering and special interest group events per year (mostly in Cambridge, but also in London, Boston and Shanghai) and a high-profile website where its 1,300 corporate members publish profiles, news, jobs and events every day.

Web: www.cambridgenetwork.co.uk
Tel: 01223 422362

**Enterprise Link**, a Business Link service for Cambridgeshire, is a membership network providing advice and support for early-stage, entrepreneurial/aspirational businesses. It holds a variety of networking events and seminars at the St John's Innovation Centre in Cambridge, and also sends out regular bulletins to members with information, advice and opportunities. It can also arrange access to sector specialists.

Email: info@enterprise-link.co.uk
Web: www.enterprise-link.co.uk

**i10** provides large and small businesses with easy access to the expertise, resources and innovation within universities and higher education institutions in the East of England.

Contact: Catherine Atkins
Email: c.atkins@i10.org.uk
Tel: 07738 455166

## The Cambridge Science Park is managed by Bidwells on behalf of Trinity College.

**Catalyst is a forum for companies on the Cambridge Science Park.**
The next issue will be published in Spring/Summer 2008. If you have any comments or suggestions for stories to be included in the next issue, please get in touch with Julie Bushell or Joanne Uttley (see right).

Management:

Jeremy Tuck MRICS
Email: jeremy.tuck@bidwells.co.uk
Tel: +44 (0) 1223 559333

PR & marketing:

Julie Bushell
Email: julie.bushell@bidwells.co.uk
Tel: +44 (0) 1223 559331

Joanne Uttley
Email: joanne.uttley@bidwells.co.uk
Tel: +44 (0) 1223 559393

Agency letting:

Jamie Green
Email:
jamie.green@bidwells.co.uk
Tel: +44 (0) 1223 841841

Peter Hewkin - CEO of Cambridge Network

# Viewpoint

## Peter Hewkin - CEO of Cambridge Network

**The Cambridge Network was founded in 2000 – how has it evolved over that period?**
It's grown in so many ways. Our membership has risen from 500 to 1,300 members and we now employ six people instead of just one. We've increased the number of events we provide to about 40 per year and we also are involved in satellite events in places such as Boston, London and Shanghai. Our website www.cambridgenetwork.co.uk receives over 10,000 hits each weekday.

We've also grown in terms of our ability to raise Cambridge's game with initiatives like The Learning Collaboration and Cambridge Corporate Gateway, showing what our members can achieve by working together for common goals.

**Has the underlying mission of Cambridge Network stayed the same?**
Yes. Our mission remains as it was when we were founded: to link like-minded people in business and academia to each other and to their global peers for the benefit of the Cambridge region. It is hugely important that we provide strong links into the University and recognise its contribution to the success of the 'Cambridge Phenomenon'. It has an 800-year history and a very strong brand which attracts leaders in many fields to the city, who bring commercial ideas and market access which complement academic expertise.

**How does The Learning Collaboration work?**
It grew out of meetings of our Human Resources Special Interest Group. HR directors of some of the bigger companies began to see that they might achieve better value-for-money in training – particularly in non-sector-specific areas such as Health & Safety, leadership training or IT skills – if members shared each other's in-house courses, thereby driving up availability, avoiding empty seats and driving down costs.

I call this way of working 'collaborative advantage'. Basically the things that Cambridge can do or can achieve, if companies work together across traditional boundaries, you can get to a higher peak than you could if any one company was working just by itself. I think this underlying paradigm of collaborative advantage is something that can and will be applied elsewhere – maybe to recruitment, marketing and other accounts.

**What do you think has been learned over the period that Cambridge Network has been in existence?**
I think Cambridge has learned a lot of tricks, but perhaps the most important one is not to be so quick in selling our companies to the US once they reach the 'proof of principle'. There has been a danger of Cambridge just becoming an R&D offshoot for American companies. Now I think there is more variety in the market, and with the aid of Alternative Investment Market (AIM) listings we're keeping more of our own companies longer. If they are being sold, the new owners may also now be from Europe or Asia. The more options we have, the more we can call the shots here in Cambridge.

**Do we still face a problem in producing really big companies?**
Rather than looking for a magic bullet that will somehow produce us a Hewlett Packard or a Xerox, I think we need to concentrate on developing a portfolio of companies across Cambridge which are larger than those we have today. If we have, say, ten such larger companies, then statistically one of these in time could grow into a real global giant – so let's look at building up what we have, rather than getting ahead of ourselves.

**What's the importance of Cambridge Science Park to the Cambridge hi-tech scene?**
It's invaluable. We've got a real cluster of business parks focused on the hi-tech scene around Cambridge which is second to none in Europe – Cambridge Science Park is the flagship of them all.

**What do you most enjoy about being involved with Cambridge Network?**
Cambridge is an astonishing global brand which has a positive association with academic and entrepreneurial excellence for people the world over. I feel blessed in having the opportunity to help represent this brand and to help our members grow stronger by working more closely together. In particular, when we can help dynamic new companies find the missing piece of the jigsaw by connecting them with someone who has knowledge in a specific area, that's extremely satisfying.

www.cambridgenetwork.co.uk