



Review 2010

Contents

1

Research Intensive

P. 4 /

2

Collaborating with Industry

P. 8 /

3

Community Relations

P. 14 /

4

Student Experience

P. 18 /

5

International Competitiveness

P. 24 /

6

People

P. 28 /

7

Financial Review

P. 32 /



120 YEARS

120 years statement

In 2011 the University of Surrey will be celebrating its 120th anniversary since its beginnings as Battersea Polytechnic Institute in 1891.

P. 36 /



■ P. 14
Community Relations



■ P. 4 Research Intensive



■ P. 24
International Competitiveness

An Overview of 2009–10 from the Vice-Chancellor

Firm Foundations for New Challenges

Looking back at 2009, Surrey has come far since our beginnings in Battersea nearly 120 years ago. It's been a year of real achievement; we entered the top 20 in *The Guardian* League Table and the entrance level for our students has increased. We've seen nearly 30 per cent growth in new research awards and our thriving network of international relationships develops apace.

Nearer to home, close alignment to our business community has resulted in a number of outstanding commercial collaborations that support UK plc and underpin our record as the best UK university for graduate employment at 97 per cent. We launched one of the best sporting facilities in the country and hosted the International Women's Rugby World Cup as the first major event for the Sports Park.

We are witnessing a new dawn for universities. Surrey continues to prosper academically and financially, meeting the challenges of the recent government policy changes. As the funding of universities shifts from the government to the individual, we remain committed to enhancing the student experience here at Surrey.

In this fast-changing environment, Surrey will continue to fulfil its aim to contribute to the wider world with our research, scholarship, teaching and learning, and to ensure its future as a thriving university of excellence.



Professor Christopher Snowden

Research Intensive

Research and innovation are crucial to solving some of the world's grand challenges. The development of new thinking, techniques and technologies is at the heart of the contribution made by higher education to the global community.

The University of Surrey is proud to have a world-class reputation for ground-breaking research and a track record not only for transforming that research into commercial opportunities, but also for providing standards of learning and teaching that generate the highest rate of graduate employment in the UK.

Health and Wellbeing

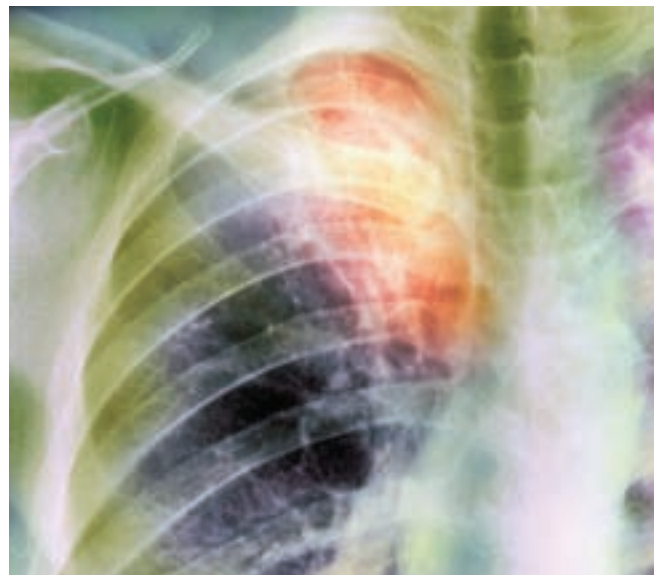
We are a sector leader in carrying out many strands of research into maintaining and protecting human health. A key area of focus is infectious disease.

> Tackling a worldwide threat

Each year there are nine million new cases of tuberculosis (TB). Yet vaccination is ineffective in adults, drug treatment takes six months, which is impractical in developing-world settings, and the emergence of drug resistance in TB worldwide has led to the prospect of incurable 'extreme drug-resistant' strains appearing in many countries.

At Surrey the response of researchers led by Johnjoe McFadden, Professor of Molecular Genetics, and Dr Graham Stewart has been to research possible weaknesses in the TB bacillus as part of an interdisciplinary collaboration that recently won £1.2 million in grants. Their work will strengthen our world-leading programme in the application of systems biology approaches to infection and immunity, and contribute to the development of new therapeutic and vaccination strategies to combat tuberculosis and other infectious diseases.

■ Coloured X-ray showing fibrosis in the lungs from both old and new tuberculosis infections.



“Surrey conducts the most efficient research of any UK university.”

The Times Higher Education

Fighting Cancer

Cancer killers

Cancer, in all its forms, is one of the developed world's major health challenges, with over 298,000 new cases diagnosed in the UK alone each year.* Developing novel and effective ways of targeting and destroying cancer cells is one of the main aims of cancer research worldwide.

*Source: Cancer Research UK

Research offers prostate hopes

Researchers at the University of Surrey, Professor Hardev Pandha and Dr Richard Morgan, have identified a protein found in the urine of men that could prove to be a potential diagnostic marker for prostate cancer. The protein, Engrailed-2 (EN2), is a transcription factor secreted from tumours. EN2 shows particular promise because it is frequently present in the urine of prostate cancer patients, but not in men with other prostatic conditions.

Tests with the urine from 400 men with prostate cancer or non-cancerous abnormalities were examined. The Surrey team detected EN2 in the untreated, unconcentrated urine

of 60 per cent of the men with prostate cancer.

This compares very favourably to results typically obtained using the current biomarker of choice, PSA, where only 15 per cent of cancers would be detected (using a threshold of 4ng/ml). The research, part-funded by the Prostate Project charity, is ongoing.

Tiny saviours

Researchers at Surrey recently discovered how the use of carbon nanotubes (CNTs) could dramatically improve cancer treatment. They are now developing ways to use CNTs – miniscule hollow cylinders made of carbon atoms 10,000 times smaller than a human hair – as drug delivery devices to precisely target tumours without causing stress to healthy cells. Johnjo McFadden, Professor of Molecular Genetics and lead scientist for the research programme, said: "This research shows that CNTs do not accumulate inside living cells so they can be used to deliver drugs or genes without causing any permanent harm. Although much still needs to be done, this is an essential step to developing CNTs as revolutionary therapeutic agents."

1

> Sleep on it

Recent research from the Surrey Sleep Centre attracted worldwide attention when published in the 1 February issue of the journal *SLEEP*, suggesting that healthy older adults without sleep disorders can expect to have a reduced 'sleep need' and to be less sleepy during the day than healthy young adults. "Our findings reaffirm the theory that it is not normal for older people to be sleepy during the daytime. Whether you are young or old, if you are sleepy during the day you either don't get enough sleep or you may suffer from a sleep disorder," said principal investigator Derk-Jan Dijk, PhD, Professor of Sleep and Physiology at the University.

Digital

Leading the development of new digital technologies that are transforming how business, society and government operate.

Surrey's Centre for Communication Systems Research (CCSR) is the UK's largest and most well-known academic research centre in mobile and satellite communication systems, and houses some 130 researchers including around 90 PhD students. This year it enjoyed particular success in attracting nine major research bids totalling nearly £5 million of research income. The bids fall under

the EU Framework 7 ICT call, which funds research aiming to 'strengthen Europe's scientific and technology base and ensure its global leadership in ICT, help drive and stimulate product, service and process innovation and creativity through ICT use and ensure that ICT progress is rapidly transformed into benefits for Europe's citizens, businesses, industry and governments.*

> Subtle signals

Researchers from the Centre for Vision, Speech and Signal Processing at the University have created an automatic system to spot non-verbal social signals in natural conversation. Humans unconsciously use subtle signals such as body gestures, emotions and gaze direction to understand the meaning of spoken language. Being able to recognise these non-verbal cues allows computers to better understand meaning in speech, which in turn enables more intuitive human-computer interfaces that can be used in a range of applications, including making computer game interactions more natural, determining user experiences in real or virtual environments and safety critical applications. ▶

* Source: European Commission

30% growth in research awards



Social and Economic Systems

Sociologists at Surrey collaborate across disciplines on ageing, criminology and criminal justice, culture, identity and communication, developments in methodology, and science, environment and sleep.

One example of Surrey's multidisciplinary research is in the field of public policy. This has led to the development of models of socio-economic systems that are invaluable for decision makers who need reliable guidance on implementing policies.

The ERIE (Evolution and Resilience of Industrial Ecosystems) programme is a £4.2 million research venture, recently funded by the Engineering and Physical Sciences Research Council (EPSRC), involving investigators from the Departments of Sociology, Mathematics and Computing, and the Centre for Environmental Strategy. ERIE addresses fundamental questions relating to the application of complexity science to social and economic systems.

Project lead, Professor Nigel Gilbert, commented: "With the increasing complexity of the problems facing policy makers, new tools are needed that will enable decision makers to understand better the constraints and options they face. Through this six-year project we are making breakthroughs in the application of complexity science to real-world problems."



Performing the archive

Research
in brief

Researchers at the Universities of Surrey and Coventry are collaborating on a pioneering project to create a web-based platform for dance resources in the UK.

Entitled 'Performing the Archive', the Digital Dance Archives (DDA) project involves cross-disciplinary work between Surrey's Department of Dance, Film and Theatre, the Centre for Vision, Speech and Signal Processing, the National Resource Centre for Dance (now based at the University of Surrey) and the School for Art and Design at Coventry University.

The DDA will deliver a single platform for digital dance in the UK, connecting multiple archives and making dance resources available internationally.

Soap is good for you

Research published this year by a joint research team from the Universities of Surrey and Illinois reveals that, far from 'rotting your brain', television dramas lead to the acquisition of political and behavioural insights among viewers. The study focused on regular watchers of eight globally popular drama and comedy programmes. Increased awareness of political issues after watching was reported among nearly one in four (24 per cent), a proportion that would equate to tens of millions of viewers worldwide.



Silicon breakthrough in 'quantum computing'

Research
in brief

The remarkable ability of an electron to exist in two places at once has been controlled for the first time in silicon by a team including researchers from the University of Surrey. The achievement is a very significant step towards applications such as an affordable quantum computer. Quantum computers make direct use of quantum mechanical phenomena, such as superposition and entanglement, to perform operations on data potentially far more quickly and efficiently than traditional transistor-based machines.

"This is a real breakthrough for modern electronics and has huge potential for the future," explained Professor Ben Mordin, Photonics Group Leader at Surrey. "Using a high-intensity pulse from a laser to put an electron into two states at once, a so-called quantum superposition state, we've proved that we can exercise control over the quantum state of the atoms."

1



Energy and Sustainability

Researchers in the Centre for Environmental Strategy (CES) at the University of Surrey are working in collaboration with Parsons Brinckerhoff Ltd to develop lifecycle assessment techniques to investigate the environmental impacts of greenhouse gas emissions from buildings, accounting for the likely impacts of climate change. Currently, there is no assessment model available that can accurately assess building projects, or incorporate the impacts of climate change into the lifecycle assessment.

Around two thirds of the buildings that will be in existence in 2050 have already been built, and UK government targets require an 80 per cent reduction in carbon dioxide emissions by the same date. This research, undertaken through the University's Engineering Doctorate (EngD) programme, aims to make it possible to meet this target whilst optimising lifecycle emissions – not just energy performance.

In May this year, Surrey's Professor Tim Jackson was re-appointed as Commissioner of Economics on the Sustainable Development Commission (SDC), the UK government's official advisory body on sustainability, reporting formally to the Prime Minister. Professor Jackson has contributed to the UK Sustainable Development Strategy and the Sustainable Consumption Round Table, and leads the Commission's work

on redefining prosperity. This work generated the Commission's controversial and ground-breaking study, later revised and updated by Professor Jackson for publication as *Prosperity Without Growth: Economics for a Finite Planet*. CES researchers highlighted an important opportunity to harness untapped energy to help achieve the country's aims of cutting carbon dioxide emissions and increasing efficiency. In a new report launched in March, they highlighted critical challenges in the current 'all-electric' approach to decarbonisation of the UK energy system. This involves a high level of reliance on electricity to meet our energy needs, especially the use of electricity for heating buildings and powering cars. The report claims that the current approach risks undermining the government's ability to meet stringent 80 per cent cuts in CO₂ emissions by 2050.

Surrey is working on a multidisciplinary research project linking the use of atmospheric carbon dioxide with the generation of renewable energy. The project, led by Dr John Varcoe who won a prestigious EPSRC Leadership Fellowship Award for the work, involves collaboration between Surrey and the Indian Institute of Technology Kharagpur, as well as a number of industrial partners. It is focusing on the generation of clean, cost-effective energy using fuel cell and reverse electrodialysis technology, with further applications recycling CO₂ to form usable fuels. ■

Collaborating with Industry



“Surrey is the number one
UK university for space”

*Francois Auque, President
and CEO of EADS Astrium*

Successful innovation, from both a research and a commercial perspective, is central to Surrey's approach. We have developed close collaborative relationships between our research teams and industry partners, ensuring that our research remains relevant, continues to produce valuable innovations and delivers enriching experiences for our students.

Last year the proceeds of commercial activities amounted to an impressive £83.904 million* and included the ground-breaking sale of Surrey Satellite Technology Limited in December 2008.

The latest BIS Annual Innovation Report stated that the UK's "world class research base continues to be the most productive

in the G8. Our universities are producing more spin-out companies than our European counterparts with over £1 billion of external investment raised last year alone." Surrey is at the forefront of this effort, with industry relationships embedded within our culture, and a Research Park hosting over 140 companies engaged in a broad range of research, development and design.

Our determination to ensure that our research makes a real-world difference has helped us to generate a highly effective model for our work with business partners. This unique approach, which puts our industry partners at the heart of our research efforts, delivers outstanding commercial value and attracts the biggest names in industry. ▶

*Data taken from the Higher Education Business and Community Interaction Survey Submission 2008–09.



■ CubeSail was revealed to journalists at the University in March.

Surrey and EADS Astrium – all the space they need

Although it seems so distant, space plays an increasingly central role in our lives every day: in protecting the environment, in scientific and technical advances, in telecommunications and countless everyday services.

The Surrey Space Centre (SSC), part of the Faculty of Engineering and Physical Sciences (FEPS), is a leading centre of excellence in space engineering. Its advanced research programmes underpin the development of space technologies.

In January 2009, EADS Astrium, Europe's largest space company, entered a strategic partnership with the University following its purchase of Surrey Satellite Technology Ltd (SSTL). The partnership brought with it a funding commitment of £5 million over five years for collaborative research and development.

The partnership with EADS Astrium typifies the constructive collaboration between Surrey research teams and industry partners. Using best practice project management methodology, teams from Surrey and EADS Astrium regularly liaise on the progress and impact of research. This focuses research efforts, maximises the commercial impact of our work and adds significantly to our students' industry experience. Contact is regular and intense, yet informal and flexible, fostering trust and enthusiasm. Matthew Perren, Innovation Manager at EADS Astrium, said of the collaboration with Surrey: "Our relationship with Surrey is uniquely based on open and continuous exchange. This partnership is highly successful and brings the University's innovative, rapid prototyping approach to bear on the technologies needed to support Astrium's future strategic goals."

Two projects this year exemplify the benefits of collaboration:

Clearing dangerous debris from space

Over 5500 tonnes of debris is believed to be cluttering space, threatening collision

with manned and unmanned spacecraft and sending debris to Earth, and the debris field is gradually but inexorably increasing. To counter this growing threat, the Surrey Space Centre and EADS Astrium recently unveiled the prototype of the ingenious solution, CubeSail.

CubeSail is a 3kg nanosatellite that can be fitted to larger satellites or launch vehicle upper stages. Once launched, CubeSail deploys a 5m² solar sail, which 'de-orbits' discarded mission equipment. Following successful in-orbit demonstration, CubeSail will provide a cost-effective means of clearing dangerous debris from low Earth orbits, suitable for satellites with a mass below 500 kg.

Sustainable energy transfer from space

Feeding the world's increasing hunger for energy is a task that grows larger every year. With the US Energy Information Administration assuming an increase in total energy demand in non-OECD countries of 84 per cent by 2035,* any solution will have to combine radical thinking with high-quality research.

The Advanced Technology Institute (ATI) and EADS Astrium are collaborating to meet this challenge with a project that aims to capture solar energy directly from space, in space, and transmit it to Earth using infrared lasers.

Lead researcher Dr Stephen Sweeney of ATI and the Department of Physics explained: "Exploiting the power of the sun directly from space provides a clean, constantly available source of energy that may be used anywhere on demand – a solar tap. Using a laser-based system overcomes many of the problems associated with collecting solar energy on the ground. The challenge for us is to develop the technology to maximise the conversion of infrared laser light into electricity."

* Source: International Energy Outlook 2010 – Highlights, 25 May 2010



Exploiting Excellence through Innovation – the Knowledge Transfer Account

The University of Surrey was awarded a £3.85 million Knowledge Transfer Account (KTA) by the Engineering and Physical Sciences Research Council (EPSRC) after a joint bid from Surrey's Faculty of Engineering and Physical Sciences, our Research and Enterprise Department and the National Physical Laboratory.

The programme funded by the award – Exploiting Excellence through Innovation – comprises three innovation platforms, each with the potential to create transformational benefits for the UK economy and society: Communications and Signal Processing; Next Generation Materials and Characterisation; and Nanotechnology and Photonics.

Surrey's KTA provides flexible engagement with industry and the ability to match-fund projects to solve industrial problems. It speeds up decision making and allows access to a wide range of laboratory facilities both inside and outside the University to put innovations into practice.

Such is the success of the programme that during the last financial year, 22 projects across the University received approximately £500,000 of the total KTA allocation.

Two of these are:

> **Digital double**

Understanding the dynamics of real faces

Creating realistic digital doubles of actors has long been an imperfect science within the entertainment industry. Despite advances in other areas of special effects, photo-realistic animation of real people remains a challenge because of the difficulty of rendering subtle facial detail to convey emotion.

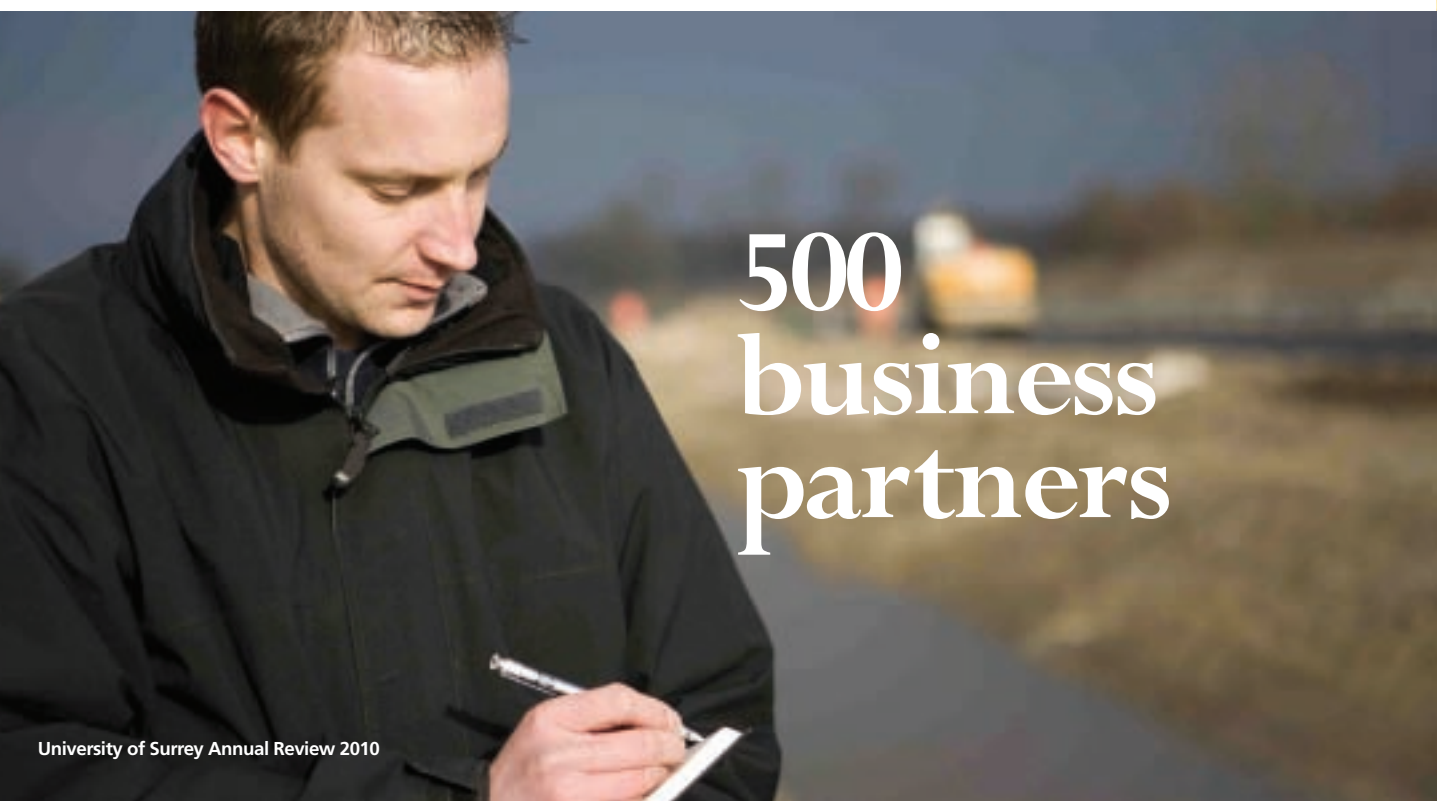
Recent EPSRC-supported research at Surrey has made modelling realistic expressions possible. KTA funding is now being used to collaborate with Framestore, a leading film visual-effects production company, to create realistic and believable facial performances from actors' digital doubles. "This technology could have a huge impact on the cost-effective production of realistic animated characters for films and games," commented research lead, Professor Adrian Hilton.

> **Blind Source helps deaf**

Improving speech intelligibility

Audio frequency induction loops are a very widely used hearing aid technology. To be successful, however, a loop system's microphone must capture only the target sound, ignoring unwanted noise, echoes and sound reflections.

Researchers at the University are using funds from the KTA and EPSRC's Collaboration Fund, in collaboration with the Royal National Institute for Deaf People (RNID), to develop an audio processing system using its novel Blind Source Separation technology to overcome this problem. The demonstrator can be used as a simple plug-in accessory with existing induction-loop systems and will be installed at the RNID's offices in London.



500
business
partners

Surrey Research Park and SETsquared – incubating innovation

Surrey Research Park is home to over 140 companies and is widely regarded as the best example of its kind. Today the Park hosts companies of all sizes, including Mitsubishi, IDBS, Detica and Microsoft. Through its involvement with the Research Park, the University has been supporting innovation for over 25 years. The Surrey Research Park hosts the Surrey Technology Centre (STC), and now the SETsquared Partnership.

SETsquared is a business accelerator consortium run by the Universities of Bath, Bristol, Southampton and Surrey, and is one of the largest government-funded, privately backed support programmes of its kind in the UK. Since its inception in 2002, it has supported more than 150 ventures. The current stable of businesses includes: Bamboo Innovations, attoCAD, I-Geolise, IKinema Ltd, Touchlight Genetics, IntaCare, Naked Energy, Tisics and U-rooms.

It is not just our own spin-outs which benefit from the support provided by SETsquared at the Surrey Technology Centre (STC); over 30 companies participated in the various networks and programmes on offer in the last financial year.

“These activities demonstrate our commitment to supporting entrepreneurs from the University and local region in order to help them drive their innovations and business ideas up the value chain,” explained Malcolm Parry, Director of the Surrey Research Park.

2

Commercial thinking

Genius may be seeing what everyone else sees and thinking what no-one else has thought, but it is the ability to apply these new ideas – often commercially – that characterises successful innovation. The ability to generate fresh thinking to make the world a better place sets Surrey apart.

Surrey’s record in developing research into spin-out companies that go on to grow, thrive and become success stories is well established. A number of these have been particularly successful this year.

> Satellite research becomes award-winning games technology

March this year saw the Royal Academy of Engineering give its prestigious entrepreneur award, and a £40,000 prize, to Surrey Space Centre’s Dr Alexandre Pechev for his revolutionary new approach to computer game and film animation using inverse kinematics.

Initially investigating ways to control space satellites, Dr Pechev realised that he had developed a solution that could be extended to both robotics and animation. With minimal effort any creature can now be animated in real time to produce realistic, lifelike, fluid movement that automatically takes into account the effects of gravity, balance and other forces in the scene that affect the character. ▶

With support from the University and SETSquared, Dr Pechev used the prize money to launch his company, IKinema, which has already achieved its first sales, and over the next year he will be making use of a recently awarded Fellowship from the Science and Technology Facilities Council and the Royal Society of Edinburgh to develop the business further.

Business Focused

> Producing fresh drinking water in the Middle East

By 2025, two thirds of the world's population will live in countries classified as water stressed. Producing more drinking water from seawater desalination plants is a possible solution to this global problem, but current technology is highly energy consuming. In 2004 Professor Adel Sharif and his team at the University of Surrey's Centre for Osmosis Research and Applications (CORA) discovered that the osmosis process could be 'manipulated' to use far less energy.


In 2006 Surrey Aqua Technology was created as a spin-out company from the University of Surrey, and in 2007 was incorporated into Modern Water Plc to commercialise the technology and expand into important overseas markets.

In November Modern Water Plc announced that its desalination plant in Oman had been successfully commissioned and was producing fresh water; in June the company further announced that it had agreed a tariff for the supply of water to the local community. These significant milestones have allowed Modern Water to use the project as a showcase for the company's technology in the Middle East, where annual expenditure on water and wastewater processing is expected to rise to \$52.3 billion by 2016. The Al-Khaluf plant provides high-quality drinking water in an area where the seawater presents a difficult challenge for the more traditional reverse osmosis process. Using Surrey's unique technology reduces operating costs and provides a more environmentally friendly alternative to traditional desalination by significantly reducing energy and chemical consumption.

“ By 2025, two thirds of the world's population will live in countries classified as water stressed. ”

Producing fresh drinking water





“The semiconductor industry urgently needs a new interconnection technology.”

2

> **Surrey NanoSystems secures £2.5m funding for silicon chip technology**

Surrey NanoSystems, one of the University's most successful spin-out companies, secured second round funding of £2.5 million from Octopus Ventures, IP Group, the University of Surrey and other investors in August of this year. The capital will help to commercialise an innovative low-temperature growth process for carbon nanotubes.

The process will help silicon integrated circuit manufacturers to overcome a critical problem that threatens the evolution of the next generation of silicon chips. Surrey NanoSystems is the only company in the world currently able to make carbon nanotubes at temperatures below 300 degrees centigrade.

“The semiconductor industry urgently needs a new interconnection technology. If you can

solve the problem of growing precision carbon nanotubes at silicon-friendly temperatures – and we have – it opens up a massive potential market,” said Ben Jensen, CTO of Surrey NanoSystems (SNS). “We expect to be the company that is able to offer a viable new interconnection process for high-volume semiconductor fabrication, one that really exploits the incredible performance properties of carbon nanotubes.”

Keith Robson, Director of Research and Enterprise Support at the University, said: “Major companies, including one of the world's largest producers of microchips, are now working directly with SNS and also experimenting with new processes using SNS equipment based at our Advanced Technology Institute. These relationships with industry will be a significant influence on the future direction of research at Surrey.” ■

Community Relations

Universities exist as an integral part of their community – locally, regionally and nationally. They enrich their local communities by providing cultural activities and facilities, by playing a part in community sport, by educating professionals who support the local region and through direct employment.

The knowledge base of a university – particularly research-intensive universities such as Surrey – also attracts businesses to locate nearby, boosting the local economy and attracting talent to the area.

Mental wealth: how the UK's universities contribute

In 2007–08, the total revenue earned by UK universities amounted to £23.4 billion, comparable to the printing and publishing industry and considerably larger than the pharmaceuticals industry in the UK.

Universities directly employed over 372,400 people, which equated to approximately 314,600 full-time equivalent jobs. This was equivalent to 1.2 per cent of all full-time

UK employment in 2007. For every 100 full-time jobs within the universities themselves, more than 100 other full-time equivalent jobs were generated.

For every £1 million of university output, a further £1.38 million of output was generated in other sectors of the economy.

Source: The Impact of Universities on the UK Economy, Fourth Report, Universities UK, 2009



Driving Growth

Mental wealth

The contribution that higher education can make to prosperity through innovation and knowledge exchange is vitally important for economic development. The UK, in common with many countries, relies upon higher education for the development of new ideas, products and services to increase the nation's capacity to innovate and adapt.

The University of Surrey's impact on the local economy is considerable. With 15,800 students living and working on and around the campus and spending an average of £6000 per annum, the student economy alone is worth approximately £100 million to the region.

As one of the area's largest employers, with over 2300 staff, 54 per cent of Surrey's annual spend goes to staff living in the county of Surrey. In addition, a complex ecosystem of companies thrive around the Surrey Research Park, together employing some 2750 staff and bolstering the economy further by attracting business and people to the area.

Culture and sport

Consistent with its ambitions for excellence in research and education, the University of Surrey is committed to cultural distinction.

The University hosts public interest lectures, debates, art exhibitions and performances, it engages with schools and colleges, and this year in particular it provided wonderful new sporting facilities that benefit the whole community. ▶

Volunteering to make a difference

Throughout the year, the Students' Union co-ordinates a host of different volunteering activities and fundraising events, including its award-winning RAG (Raising and Giving) week. This year our team won two awards for their achievements at the national RAG conference.

In June, Surrey student Daniel Rolfe won a prestigious Higher Education Student Volunteering Award, given to students who have made an outstanding

contribution to volunteering in their community. The judges said that Daniel's application showed excellent commitment to his volunteering across a number of projects, from volunteering as a classroom assistant, to developing the Playground Activity Co-ordinators Scheme involving 30 University volunteers, and acting as the lead male mentor on a reading project with the National Literacy Trust. He is also an active member of St John Ambulance.

Students from nearby Esher High School visited the University's in-house TV studio, in March, as part of the BBC's School Report programme.

Did you know?

- Surrey provides activities for over 34,000 local school and college students each year.
- A further 26 students supported a playground activities scheme and 38 more supported a reading mentors scheme.
- Last year 97 University students and 152 sixth formers worked in local schools and colleges as student tutors or mentors.
- A sixth form lecture series attracted over 2000 local students and our annual summer school attracted a record 94 sixth formers.

“The contribution that higher education can make to prosperity through innovation and knowledge exchange is vitally important for economic development.”




■
Jim Al-Khalili

A sample of the events hosted by the University of Surrey:

- The Great Look Up to celebrate the International Year of Astronomy, in partnership with the Guildford Astronomical Society. This was a fun event hosted by TV's Maggie Philbin that encouraged anyone interested in astronomy to bring along a telescope to look at the stars and learn something new. We were joined by stargazers the world over via twitter link-ups.
- The British Science Festival welcomed thousands of visitors to the campus in September. Hailed by the British Science Association as their most successful for years, the festival was a celebration of science for all ages. Carried out in partnership with Guildford Borough Council, Surrey County Council and the South East England Development Agency (SEEDA), the festival attracted around 33,000 visitors. Over 300 scientists and engineers participated in a wide variety of events which took place in venues across the county, leaving a legacy of partnership working and a heightened awareness of the benefits of science amongst a new generation.
- A great variety of musical recitals and performances from students and established figures such as Bassekou Kouyate, Steven Thachuk, Sarah Wass, Steven Isserlis and Sam Haywood.
- The annual Science Circus event brought together schools and families from across the region. A total of 2700 science enthusiasts of all ages experienced inspirational talks, exciting demonstrations and a hands-on activity zone filled with fascinating experiments.
- An acclaimed 'In Conversation' series of events hosted by Surrey's TV scientist Jim Al-Khalili began this year and featured fascinating discussions with Professor Robert Winston and the Archbishop of Canterbury.
- An Earth Day Fair was hosted at the University to generate awareness of the need for people, corporations and governments to come together in creating a global green economy. The exhibition was well attended by members of the University and local communities. ■

Student Experience



Our students are at the heart of our success and we are committed to continually improving their experience of living and learning at Surrey. In 2009–10 we continued to make great progress in developing our programmes and campus to provide an environment in which our students can reach their fullest potential.

At Surrey, however, the experience we provide is also calibrated to ensure that students compete effectively in the job market; so they can hit the ground running at work.

25% increase
in entrance tariff*

*Over four years

“At Surrey the experience we provide is calibrated to ensure that students compete effectively in the job market; so they can hit the ground running at work.”

4

> Library and Learning Centre

A major extension and refurbishment of the existing University Library will provide a library appropriate for a leading university. The new Library and Learning Centre will provide generous additional space and resources, as well as accommodation for a new supermarket, chemist, post office, bookshop and eating space.

“A library must be at the heart of any major university; our students and staff deserve the very best facilities and we are delighted to have been able to exceed their expectations,” said Vice-Chancellor Professor Chris Snowden.

> Always welcome

At Surrey we are building a culture of cross-faculty partnership that puts students and their experience of learning with us at the heart of everything we do. We spent time this year listening to students to ensure that we offer the welcome they need.

Now new students are provided with key information before they arrive and this links up with a brand new Welcome Week programme, designed to help new arrivals to settle in quickly and happily when they get here. The programme now embraces not only freshers but also returning students, including those from the professional training year who receive a welcome pack and a two-day orientation, to help them readjust to student life as they return. ▶

Campus development

Surrey is fortunate to have a beautiful campus location at Stag Hill. Many new buildings have been added, and we continue to invest heavily in our facilities in order to provide the lively, engaging and healthy campus experience that is characteristic of successful universities.

- A major 12-year programme of regeneration drew to a close this year, with the completion of a major window replacement programme and the renewal of the services infrastructure of the estate. Over 95 per cent of the University’s academic building stock is now classed as in the higher quality Grade A & B category for universities. The aim is to ensure that the University’s infrastructure is fit for the future with an improved aesthetic appeal and facilities, and a reduced environmental impact.
- The Guildford School of Acting building was completed in December and students moved onto campus in January.
- New simulation suites, providing practice opportunities for health and social care students, opened in September.
- Refurbishment of the lecture theatre blocks was carried out, renewing ventilation systems and improving carbon emissions by over 2000 tonnes per annum.
- The Students’ Union building was refurbished and a new dining and social area named The Living Room opened.
- Work began to transform the old Sports Hall into a new Performing Arts Centre with a 200-capacity theatre, three rehearsal studios, a dance studio, a bar and workshops.
- Over 200 new en-suite bedrooms were completed, alongside a £3 million regeneration to update existing facilities.

“Surrey students are the most employable in the UK, with 96.9 per cent in employment within six months of graduating.” *

*Source: Destinations of Leavers from Higher Education data published in 2010 by the Higher Education Statistics Agency (HESA).



■
Artist's impression of the new Library and Learning Centre, due to open in the autumn of 2011.

Putting students first

> Wellbeing

An improved mentoring scheme was introduced involving 70 residential mentors who have volunteered to provide advice and support to all students living on campus. Mentors visit every student once a week to offer help with any aspect of student life. They provide a non-judgemental listening ear and can direct students to specific services on campus.

- A new Centre for Wellbeing was launched during the year which incorporates the work of the University Counselling Centre and promotes the awareness of good emotional, psychological and physical health.

A Civil Engineering student working 'in the field' as part of her professional training year.



4

Employability

A complete education

Unlike most other universities, Surrey degrees have been designed to incorporate professional experience to develop personal and work-based skills through a placement year. Every Surrey student has the opportunity to spend 12 months working in industry, commerce, the public sector or for a professional body. The Surrey professional training year is widely regarded as one of the best in the world, and allows us to provide our students with what we call a 'complete education' – the combination of personal development, academic learning and real-world application into a blend of skills, knowledge and professional experience that gives them a marked advantage in the job market. Over 50 per cent of our students complete our professional training year, one of the highest proportions of any UK university.

Joanne Herd is studying a Business Management degree at Surrey and spent her professional training year with the Marks and Spencer placement programme. "During my training year," she explained, "I met students from other universities and I realised just how well Surrey had prepared us for what we were going to experience."

"The opportunity to benefit from a year out in the workplace is definitely something that sets Surrey apart. It gave me the opportunity to apply all the theory I learned in the first couple of years of my course to a real business environment. I feel ready to complete my final year with a much better understanding of the business world".

Joanne was eventually offered a job with Marks and Spencer and is set to join their graduate scheme after graduation. Joanne is just one of the Surrey students who has benefited from the 800 placements offered each year by 350 organisations. Around 20 per cent of these students are offered permanent employment with their placement company on graduation. ■



Surrey Sports Park

The site chosen for the construction was on sloping ground and so the design of the building was developed in order to complement its environment.

Over 1000 interviews took place in order to fill the 100 new positions created by the park.

1900 members of the public, 3200 students and 250 staff members had signed up by the end of the financial year – just six months after the membership list was opened.



“Surrey Sports Park was the preparation centre for Team England in advance of the Delhi 2010 Commonwealth Games.”

■ Surrey's rugby team playing against Brighton University this year at Surrey Sports Park.

Summer of sport

Following its launch in April, Surrey Sports Park hosted an impressive summer of sporting events. The flagship Women's Rugby World Cup series involved 12 international teams and sustained television audiences across 128 nations, with 1.5 million viewers in the UK alone.

Netball Super League:
Surrey Storm vs Glasgow Wildcats

Netball Super League:
Surrey Storm vs Team Bath

Premier Squash League Final

Netball Super League: Surrey Storm vs Mavericks

Women's International Rugby: England vs Wales

Women's GB Basketball Training Camp

Women's International Basketball: GB vs Ukraine

FA Futsal National Championships

Women's GB Basketball International Qigong

England Netball Commonwealth Games Preparation Camps

Surrey Youth Games Children's Summer Camps

IRB Women's Rugby World Cup: England, Ireland, Wales, Scotland, France, South Africa, Australia, New Zealand, USA, Canada, Sweden, Kazakhstan

Surrey Sports Park on TV live in 128 nations

April saw the culmination of years of planning with the opening of the £36 million Surrey Sports Park. One of the most advanced facilities of its kind anywhere in the world, it is already attracting high-performance athletes and professional sports teams, including a Premiership football team, an international rugby team and several overseas teams preparing for the 2012 Olympic Games. Surrey Sports Park provides a venue that supports the ambitions of all users, regardless of ability, from world-class athletes to grassroots beginners.

> Academic collaboration

The possibilities for our teaching and research portfolio are extensive and bring together Surrey academics and external partners in exploring interconnected issues of sports achievement and healthy living.

Already our Surrey Human Performance Institute (SHPI), where sports performance professionals collaborate with medical and clinical research experts from the Surrey Clinical Research Centre (Surrey CRC), is up and running. The service provides a range of sophisticated heart, lung, cellular function, strength, power and flexibility tests, offering assessments of fitness and performance at very high levels to professionals and the public.

The team at SHPI also offers cardiopulmonary exercise tests for the pre-operative assessment of high-risk patients. Such testing can enable clinicians to determine the suitability of patients for operations and help to predict outcomes and recovery times. Tests can also be applied to patients requiring rehabilitation after a cardiac or pulmonary event in order to support the patient's physician in developing recovery programmes that are appropriate to their individual needs, thus reducing the risk to their health.

After a strong start, the team is now moving to develop working partnerships across a range of strong research areas at Surrey including metabolism, nutrition and biomechanics. Dr Hubert Bland, Chief Medical Officer, explained:

"By bringing on board postgraduates to work in the Department and collaborate with other PhD students in other academic centres in the exercise and human performance areas, we hope to bring together a much greater range of experience."

> A high-performance culture

The standards set by Surrey Sports Park underpin the development of a 'high-performance' culture right across the University. Fitness and wellbeing are brought into sharp focus, and the opportunity to train alongside some of the very best athletes in the world is proving very popular, providing a knock-on effect that encourages students, staff and partners not only to improve their health, but also to raise their game right across the spectrum of their working and academic activities.

The strength of our performance ethic has attracted strategic partnerships, nationally and internationally, with elite sporting individuals and teams who now work closely with us to develop pathways that enable the development of talent from school right through to national level.

We are working with:

- Harlequins, the Guinness Premiership rugby team, which has chosen Surrey Sports Park to be their training base and also links with our University of Surrey rugby club to develop players and their routes into elite sport
- Super League netball team, Surrey Storm, which has some GB players in the squad and is now based at Surrey, delighting local crowds with its high-energy performances
- The GB women's basketball team which is based at Surrey Sports Park for its training camps and test matches
- The GB synchronised swimming team which trains in Surrey Sports Park's 50-metre swimming pool ■

International Competitiveness

Universities increasingly operate across international boundaries, competing and contributing worldwide.

The University of Surrey is an international institution and this perspective is integral to everything we do. We have created many opportunities to reach out to other countries and cultures to promote research collaboration, to encourage and enable mobility for staff and students, to raise intercultural awareness, and to ensure that our curriculum responds to the needs of a global society, culture and economy.

We are creating revolutionary new models for multilateral collaboration in teaching and research, and providing tangible outcomes and benefits to our staff and students by developing a unique partnership network stretching, quite literally, around the world. Surrey's global positioning is now reflected in our student body as much as in our teaching and research arrangements. Thirty per cent of students based on our Guildford campus are from overseas, with a total of 140 countries represented.

> **University Global Partnership Network**

The University Global Partnership Network (UGPN*) comprises three major partner institutions: North Carolina State University (NCSU), Universidade de São Paulo (USP) and Seoul National University (SNU).

Creating a foundation for international collaboration by building relationships with leading institutions worldwide has enabled Surrey academics to engage with colleagues at some of the world's leading universities. The benefit of the resulting research collaborations, joint publications, curriculum innovations and increased mobility is feeding through in terms of an improved research and teaching agenda and an increasingly influential international profile.

*Formerly known as the Global Partnership Network (GPN)



This year at a glance

The past 12 months have seen many positive developments in Surrey's international activities.

A joint research programme in zoonotic diseases was established with North Carolina State University and good progress has been made on collaborative learning and teaching activities in mathematics and physics. A staff exchange programme took place with Seoul National University.

Our partnership with Universidade de São Paulo has gone from strength to strength with collaborative research activities taking shape in various disciplines including cardiovascular health, tourism, neuropsychology, electronic voting, nursing ethics and transboundary aquifers.

Surrey and FAPESP (the main funding agency for scientific and technological research in the state of São Paulo) signed an agreement for joint funding of researcher mobility, designed to open up collaborations with São Paulo universities. In addition, a recently signed agreement for joint research funding between the UK Research Council and FAPESP is expected to release new funding streams for USP–Surrey collaborations.

Over £325,000 in new funding was attracted to support a range of international activity in many areas, from politics to languages.

Building research partnerships

We are now in the process of organising joint colloquia (social sciences with SNU) and international conferences (nuclear energy with USP and others) with a range of international partners. The UGPN extends the range of study options available to Surrey students well beyond Europe: Surrey students at all levels are now able to complete part of their degree on exchange in the USA, Korea or Brazil, while academics at Surrey and at leading institutions around the world are working together to develop joint graduate degrees.

> Collaboration research

Developing partnerships and collaborative working relationships with academics, departments and institutions around the world has led to new opportunities for subject-specific and cross-disciplinary research.

Professor David Frohlich, from Surrey's Digital World Research Centre, is working with colleagues from the Universities of Cape Town, Swansea and Glasgow on a study investigating how social media-sharing systems could benefit people in developing communities with low levels of literacy. The project, entitled 'Community-generated media for the next billion', has attracted a Research in the Wild grant from the Digital Economy programme in the UK.

Generous funding by Banco Santander, under the umbrella of the Santander Universities Network, has allowed researchers and graduate students from Surrey and Universidade de São Paulo to work together on collaborative research programmes (see page 27 for further details).



> Teaching

Working with partners at other leading universities is creating exciting opportunities for students to study in two countries, splitting their time between institutions.

Launched in September, Surrey and North Carolina State University (NCSU) now offer a Dual Masters programme in Politics. This innovative programme is a unique opportunity for high-achieving students to study one year on the Master of International Studies (MIS) at NCSU and another year on one of the MA degrees in the Department of Politics at Surrey. The first two students from NCSU started here in 2010.

A similar programme has also been developed with Seoul National University (SNU) this year and will be available to students from September 2011. Surrey students were also given the opportunity to participate in a summer school in language, culture and international business at SNU.

Veterinary Biosciences students from Surrey joined experts in the USA to research how infectious agents interact with the host animal, as part of a summer research internship at the NCSU College of Veterinary Medicine. First-year students worked in the research laboratories of the NCSU College of Veterinary Medicine to help develop ways to tackle diseases

Santander Research Mobility Awards were granted to:



Dr James Heather from the Department of Computing for his research into electronic voting.

Dr Adam McNamara from the Department of Psychology, who is studying cognitive neuroscience and the behaviour of the brain in depressive patients.

Francesco Sindico from the School of Law, for his studies into subterranean water systems and their legal implications.

Dr Ann Gallagher from the Division of Health and Social Care, who is working with Universidade de São Paulo and Curitiba University to develop research into nursing ethics.

Two PhD students from Universidade de São Paulo received funding to undertake part of their research with a Surrey research team:

Mariana Aldrigui Carvalho spent six months in the School of Management, working on tourism management under the leadership of Professor John Tribe.

Melissa Araújo Ulhôa worked for four months on circadian rhythm disorders in long-distance truck drivers in the Department of Biochemical Sciences with Professor Debra Skene.

Cristina Paganini is currently undertaking research in nursing ethics in the Division of Health and Social Care of the Faculty of Health and Medical Sciences with Professor Ann Gallagher, for a period of four months.

These collaborations will play a pivotal role in the development of networks across the UGPN and pave the way for multilateral long-term collaborations, which are set to attract further major research grants and encourage staff and student mobility between partner institutions.

spread by ticks and to model systems to study important diseases.

Professor David Bristol, Dean of the NCSU College of Veterinary Medicine, commented: "We are very excited about the University of Surrey students that will be working with our faculty this summer, as it marks the beginning of the realisation of a larger collaborative agreement between our college and the University of Surrey. We are also looking forward to the opportunities for faculty interchanges and for similar experiences for our own students in Surrey."

- > **The University of Surrey in China**
Surrey International Institute (SII) is an academic partnership with Dongbei University of Finance and Economics, established in 2007. By the beginning of this academic year, SII had a total population of nearly 1000 students. This year 31 SII students enrolled at the Guildford campus to complete the final two years of their undergraduate studies. ■

People

Universities are defined by their people: by the quality of the staff they employ, by the students that teaching and research attracts and by the graduates they produce. The University of Surrey is enormously proud of all its staff, students and alumni, and their many achievements, of which only a few are highlighted here.

> Staff achievements

We enjoyed double success in November at the annual Institution of Engineering and Technology (IET) Awards. Professor Sir Martin Sweeting, Director of the Surrey Space Centre at the University and Executive Chairman of Surrey Satellite Technology Ltd (SSTL), was awarded the Faraday Medal, the IET's most prestigious award, for his outstanding contribution to the advancement of satellite technology.

Professor Matthew Leach, from Surrey's Centre for Environmental Strategy, received a Premium Award for his outstanding journal paper in the area of generation, transmission and distribution, jointly with colleague Tim Green.

Professor Ravi Silva, Director of Surrey's Advanced Technology Institute (ATI), was one of three new Fellows inducted into the National Academy of Sciences in Sri Lanka (NASSL) in November. He was recognised for his eminence in the field of nanotechnology internationally and in particular for his contributions to Sri Lanka. In June, he was also recognised with the Clifford Patterson Prize Lecture for his outstanding contribution in the fields of carbon nanoscience and nanotechnology in this year's Royal Society Awards and Medals.

In June, Professor Jim Al-Khalili OBE, from the Department of Physics, was nominated for a BAFTA for his television series

'Chemistry: A Volatile History'. That same month he was among a number of eminent scientists to present Channel 4's 'Scientists that Changed the World'.

In December, Dr Susan Lanham-New, from the Division of Nutritional Sciences, was appointed a member of the Scientific Advisory Committee on Nutrition (SACN). The SACN is an advisory committee of independent experts that provides advice on diet and nutrition to various government agencies and departments, including the Food Standards Agency and the Department of Health.

In September, Professor Stephen Sweeney, from ATI, was awarded a highly sought-after Leadership Fellowship from the Engineering and Physical Sciences Research Council. His research will examine the fundamental physical limitations of electronic and photonic technologies and develop new, temperature stable, semiconductor technologies with much higher efficiencies.

Stephen Halloran, Senior Research Fellow and Director of the Bowel Cancer Screening Southern Programme Hub, was made an MBE in the Queen's birthday honours list. The award is recognition for the many achievements within health care science of the man responsible for establishing a vital bowel cancer screening initiative in Guildford. ▶



Winning awards



■
Surrey graduands
enjoy celebrating their
achievements at the
impressive Guildford
Cathedral.

In June, the European Laboratory Automation and Robotics Interest Group awarded its ELRIG Technology Award to Dr Kai Hoettges, for his achievements in developing a novel system for cell analysis. Kai's work is focused on the development of instruments that use electric fields to analyse the physiology of cells, with applications in medicine and the pharmaceutical industry.

In November, Dr Nick Hills, from the Rolls-Royce Thermo-Fluid Systems University Technology Centre, was awarded a five-year Fellowship from the Royal Academy of Engineering and Rolls-Royce to enable him to pursue research into virtual engine modelling.

In December, Dr Alan Packwood was awarded an ExxonMobil Excellence in Teaching Award. The award is given to individuals who have distinguished themselves within their peer group by showing a strong and continuing commitment to teaching, professional activities, promoting engineering as a rewarding and creative career, establishing industrial-academic links and other activities which ultimately ensure the output of top-quality graduate engineers. He was one of only five UK winners to receive the award this year.

> **Student achievements**

Alex Samuels, who graduated with a BEng this year, was one of only three finalists for the Morgan Crucible Award for Best UK Student in Materials Science at the 2009 Science Engineering and Technology (SET) awards in September. Alex was nominated for his final-year project, an investigation into the uses of a new form of carbon called graphene. Alex is continuing his studies at Surrey as a PhD student within ATI.

In March, PhD student Haitao Zhang, from the School of Management, was awarded the Chinese National Award of Outstanding Overseas Postgraduate Students by the China Scholarship Council. This is the Chinese government's highest level of postgraduate education award. Haitao, who is in the final year of his PhD study at the School of Management, is among only eight PhD candidates in business and management worldwide to win this prestigious award.

Physics undergraduates Ed Leming and Scott Jarvis had their work published in the international journal *Atmospheric Environment* in June. Ed and Scott both spent their professional training year with the National Physical Laboratory in Middlesex. Their work presents new techniques to measure volatile organic compounds that are potentially damaging products of the oil industry.

In March, a team of Surrey students from the MSc International Hotel Management programme travelled to Berlin to take part in the third annual International Hotel Investment Forum (IHIF) Student Strategy Challenge, the world's most important hotel investment event. The competition aims to generate ideas with future hotel industry leaders about the best ways to develop and advance the sector. Surrey's team of Alexandros Cocolis, Bruno Delvaille, Yagmur Ilaldi and Yvonne Hennies was awarded second place, receiving excellent feedback from the jury of industry experts.

Postgraduate researchers Radu Sporea, Charles Opoku, Samantha Shaw and Emma Suckling presented at the prestigious Cheltenham Science Festival in June. Each working at a different scale of the micro world, they explored the possible applications of their blue-sky research for solving real-world problems: from batteries that use the energy in the nuclei of atoms to carbon nanotubes that could provide a novel way of filtering water.

15,000 students 2,300 members of staff

Second-year MEng Civil Engineering student Elizabeth Waters was announced as the regional winner of the Association of Women in Property (WiP) National Student Awards in August. Elizabeth won £500, free membership of the association upon graduating and the opportunity to participate in the WiP mentoring programme.

> **Alumni achievements**

Surrey alumni are making a difference all over the world. Here, we mention just a few of the accolades they have achieved this year.

In December, Professor Shrawan Kumar was appointed Officer of the Order of Canada, which is Canada's highest civilian honour. Professor Kumar achieved his PhD in Human Biology at Surrey in 1971 and in 1994 was awarded a DSc by the University in recognition of his lifetime's work. Indian-born Professor Kumar spent three decades pioneering research on workplace injury and the spine.

Paul Sheffield, who graduated from Surrey as a civil engineer in 1983, was appointed CEO of Kier Group this year. Paul said that his time at Surrey was crucial to his future career: "I believe it was the University that really gave me the passion to do well and to enjoy the industry for which it prepared me."

John Bigos, MBA graduate, has been managing director of award-winning London Duck Tours Ltd since 2002. Since taking the helm, he has transformed it from a loss-making company to one with a turnover of £2.3 million and pre-tax profits of £210,000 in 2010. John credits his Surrey MBA with his success. "It taught me that a business cannot succeed without a clear business strategy, a marketing programme in place to support it and a group of motivated and well-trained employees who are getting the support they need," he said. ■

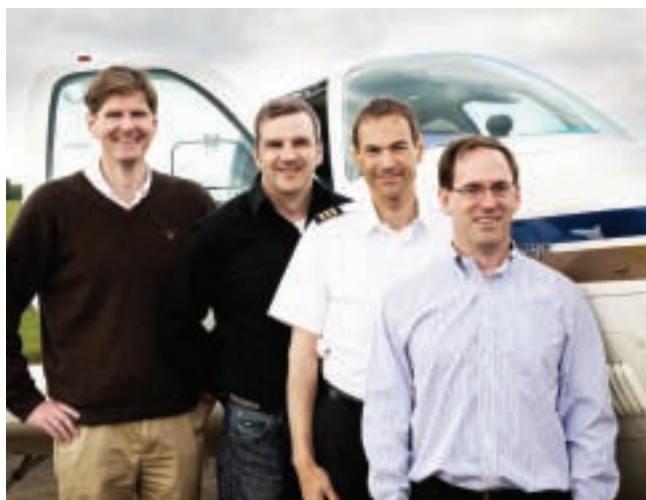
RocketRoute

Graduates Kurt Lyall and Justin Coelho were finalists in the Barclays Business 'Take one small step' competition in June. The competition rewards the ten freshest business ideas up and down the country with a prize of £50,000 to put towards making

their dream a reality. Their product, RocketRoute (dubbed the 'TomTom for planes'), was one of three shortlisted in the South East region from more than 3600 entrants nationally.

6

■ The RocketRoute team, from left to right: Kurt Lyall, Justin Coelho, Uwe Nitsche and Michael Flynn.



Financial Review

Introduction

The summarised financial statements comprise the consolidated results of the University (including its Foundation Fund) and its subsidiary companies.

Income and Expenditure

Overall

The University achieved a consolidated surplus for 2009–10 of £4m. This compared favourably with the previous year's figure, before exceptional items, of £0.2m.

Consolidated income rose by £2.6m (1.3 per cent) to £193.8m. Excluding the distorting impact of Surrey Satellite Technology Limited (for which five months' trading was included in the 2008–09 results prior to sale), total income grew by 8.7 per cent which was a very encouraging result.

As in previous years, income was well diversified, with 26 per cent derived from HEFCE grants, compared with the national average of 35 per cent.

On a like-for-like basis, expenditure rose by 7 per cent to £190.1m.

Core University activities

There was a deficit, before restructuring costs, on core University activities (which include the activities of the Guildford School of Acting and Surrey Sports Park) of £0.6m. This showed further improvement from 2008–09 (£1.6m deficit) and 2007–08 (£2.6m deficit). These results show the University making continued progress towards its target of breaking even on its core activities by 2011–12, after allowing for a base level of restructuring costs of c.£1.5m per annum.

Income on core activities grew by 9.6 per cent to £184.3m. Tuition fee and educational grant income rose by £10.1m (16.8 per cent) to £70.1m and research income rose by £2.3m (9.2 per cent) to £27.6m. The increase in tuition fees mainly reflected an increase in student numbers. It included income from overseas students which increased by £3.9m (17.9 per cent) to £25.9m, giving a cumulative increase of £7.8m (43.5 per cent) in the past two years. The University continued to benefit from low interest rates, and expenditure in other areas, especially staffing costs, remained tightly controlled. Restructuring costs totalled just £0.8m compared with £3.5m for 2008–09, when there was a major academic restructure in response to a reduction in government research funding.

Chart 1 2009–10 consolidated income showing percentage change from 2008–09 continuing operations

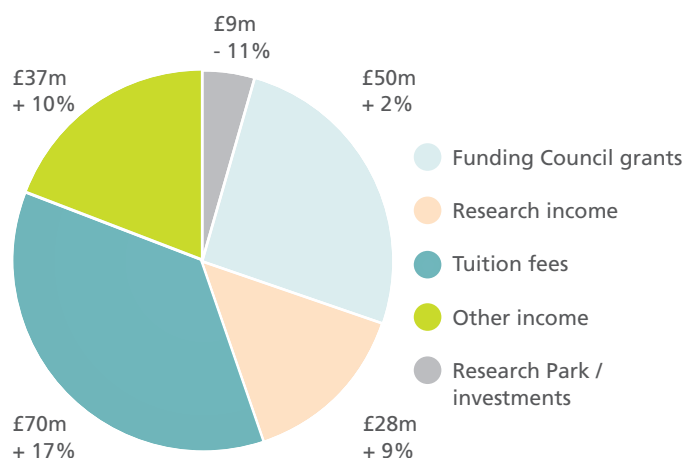


Chart 2 2009–10 consolidated expenditure showing percentage change from 2008–09 continuing operations

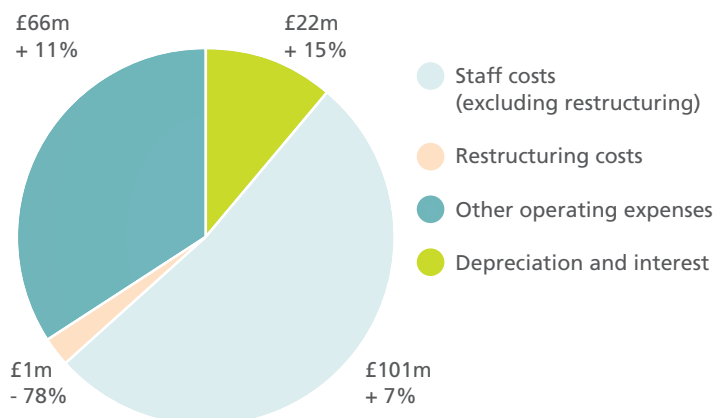


Chart 3 Movement in net assets 2009–10

	£m
Consolidated net assets at 31 July 2009	167.7
Surplus for the year	4.0
Actuarial gains on pension schemes	6.4
Investment property revaluation	1.4
Other movements	0.5
Consolidated net assets at 31 July 2010	180.0

Foundation Fund

The Surrey Research Park, which is the Foundation Fund's main asset, continued to generate a strong income stream from a broad spread of tenants, despite the weakness in the commercial property market and the wider economy. Income was slightly lower at £9.1m (2008–09: £9.5m), but the Fund continued to benefit from low interest rates and achieved a surplus for the year of £5.4m (2008–09: £5.6m).

Balance Sheet

Consolidated net assets rose in 2009–10 by £12.3m (7.4 per cent) to £180m. In addition to the £4m surplus for the year, the main change was a reduction in the pension liability. Actuarial gains on the pension schemes amounted to £6.4m, of which £5.9m was accounted for by the pensions indexation change from RPI to CPI.

Capital Expenditure

2009–10 saw further significant investment both in new building projects and in the regeneration of existing facilities, as part of an overall estate strategy which aims to provide the highest standards possible for students, staff and visitors. In a year which saw the completion of the Surrey Sports Park, the new GSA building on the Stag Hill campus and a further 252 student rooms, capital expenditure totalled £38.7m. This included the final £13.6m of expenditure financed by a £50m loan facility agreed in March 2008.

Summary

The financial results show the University making continued progress towards its target of breaking even on core activities by 2011–12. This will enable income from the Foundation Fund and other enterprise activities to be used for strategic investment for growth.

The recently announced Comprehensive Spending Review and the proposals in the Browne Report on Higher Education Funding and Student Finance will lead to a period of unprecedented change in the UK higher education sector over the next five to ten years. However, through the diversity of its activities and its many and varied core strengths, the University is well placed financially to meet these challenges in pursuit of its long-term goals.

Summary consolidated income and expenditure account

For the year ended 31 July 2010

	2009–10		2008–09	
	Total £m	Continuing Operations £m	Discontinued Operations £m	Total £m
Total income	193.8	178.2	13.0	191.2
Total expenditure	(190.1)	(177.6)	(13.6)	(191.2)
Surplus/(deficit) before taxation	3.7	0.6	(0.6)	0.0
Taxation, minority interests and transfers from endowments	0.3			0.2
Surplus before exceptional items	4.0			0.2
Exceptional items	-			33.9
Retained surplus for the year	4.0			34.1

* 2008–09 discontinued operations and exceptional items relate to Surrey Satellite Technology Limited which was sold on 31 December 2008.

Independent Auditors' Statement to the University of Surrey ('The University')

We have examined the summarised financial statements of the University of Surrey for the year ended 31 July 2010 which comprise the summary consolidated income and expenditure account and the summary consolidated balance sheet, which are set out on pages 32 to 35 of the University's Annual Review ('Annual Review'). The summarised financial statements have been prepared by the University Council for the purpose of inclusion in the Annual Review, as explained in the note.

This statement is made, in accordance with our engagement letter dated 10 October 2008, solely to the University, in order to meet the requirements of paragraph 36 of the Statement of Recommended Practice: Accounting for Further and Higher Education (2007). Our work has been undertaken so that we might state to the University those matters we have agreed to state to it in such a statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the University for our work, for this statement or for the opinions we have formed.

Respective responsibilities of the University Council and auditors

The Council has accepted responsibility for the preparation of the summarised financial statements in accordance with paragraphs 29 to 35 of the Statement of Recommended Practice: Accounting for Further and Higher Education (2007). Our responsibility is to report to the University our opinion on the consistency of the summarised financial statements on pages 32

to 35 within the Annual Review with the full financial statements.

We also read the other information contained within the Annual Review and consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the summarised financial statements.

Basis of opinion

We conducted our work having regard to Bulletin 1999–6 'The auditor's statement on the summary financial statement' issued by the Auditing Practices Board. Our separate report on the University's full financial statements for the year ended 31 July 2010 describes the basis of our statutory audit opinion on those financial statements.

Opinion

In our opinion, the summarised financial statements set out on pages 32 to 35 are consistent with the full financial statements for the year ended 31 July 2010.

Chris Wilson
For and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
1 Forest Gate, Brighton Road
Crawley, West Sussex
RH11 9PT

29 November 2010

Summary consolidated balance sheet

As at 31 July 2010

	2010 £m	2009 £m
Fixed assets	308.9	285.1
Endowment asset investments	50.5	48.8
Current assets	65.5	60.7
Creditors: amounts falling due within one year	(67.5)	(59.8)
Total assets less current liabilities	357.4	334.8
Creditors: amounts falling due after more than one year	(146.9)	(131.7)
Provisions for liabilities and charges	(1.6)	(1.7)
Pension liability	(28.9)	(33.7)
Total net assets	180.0	167.7
Deferred capital grants	53.9	53.9
Endowments	50.5	48.8
Reserves	75.6	65.0
Total funds	180.0	167.7

Note

The summarised financial statements for the year ended 31 July 2010, which comprise the summary consolidated income and expenditure account and the summary consolidated balance sheet, have been prepared by the Council of the University of Surrey for the purpose of inclusion in this Annual Review. The summarised financial statements are an extract of the full financial statements on which the auditors issued an unqualified opinion.

The full financial statements were approved by the University Council on 25 November 2010.

The full audited financial statements and independent external auditors' report can be obtained from the Director of Finance, University of Surrey, Guildford, Surrey, GU2 7XH.

Professor CM Snowden FRS FREng FIET FIEEE FCGI
Vice-Chancellor and Chief Executive

Max Taylor
Chairman of Council

The University of Surrey in its 120th Year

1891

Battersea Polytechnic Institute was founded. Its first students were admitted in 1894 onto 115 classes across 64 subjects from natural sciences, mechanical engineering and building to art, commerce and languages. Of the 2406 students, more than half were aged 16–21 and most came from the 'poorer and artisan classes'.

February 1956

Battersea became one of the first eight polytechnics to be designated a 'College of Advanced Technology' in order to teach advanced technology to university standard. It was renamed Battersea College of Technology in 1957.

October 1975

Professor Anthony Kelly, the University's second Vice-Chancellor, was appointed after the retirement of Dr Leggett.

September 1980

Surrey became the first UK university to offer a single honours degree in Dance.

April 1991

The University won the Queen's Award for Export Achievement, recognising its overseas earnings from teaching, advanced technology contracts and research programmes.



Battersea College
of Technology



The Queen visits the
University of Surrey

September 1966

Battersea Polytechnic became the University of Surrey and was granted its Royal Charter. Dr Peter Leggett, the very last Principal of Battersea College of Technology, became the very first Vice-Chancellor of the University of Surrey.

September 1970

The University's move to its current location on Stag Hill was completed. In the academic year 1970–71 there were 2075 undergraduate and 569 postgraduate students, of which 57 per cent were postgraduate researchers.

October 1994

Professor Patrick Dowling was appointed the third Vice-Chancellor.

February 1997

Surrey was awarded the Queen's Anniversary Prize for Higher and Further Education in recognition of the University's outstanding achievement in satellite engineering and communications, teaching and research by the Centre for Satellite Engineering and its associated companies.

February 1998

Surrey Satellite Technology Ltd (SSTL) was awarded the Queen's Award for Technological Achievement. This was presented in person by The Queen on her second visit to the University, accompanied by HRH The Duke of Edinburgh and HRH The Duke of Kent, Chancellor of the University.

May 2002

The University celebrated its 35th anniversary year in Guildford with a major event in Guildford Cathedral and the gift to the town of 'The Surrey Scholar', a sculpture by Allan Sly FBS.

April 2008

Surrey started the Global Partnership Network with leading international universities.

January 2009

The University made history when it announced the largest ever cash sale of a university spin-out with its disposal of Surrey Satellite Technology Ltd (SSTL) to EADS Astrium.

February 2009

The first experiment to observe individual chemical reaction events in a carbon nanotube was carried out at the University.



The Centre for Communication Systems Research and the School of Management



GSA building

July 2005

Professor Christopher Snowden was appointed the fourth Vice-Chancellor.

November 2006

The University was awarded the THES Prize for Outstanding Contribution to Innovation and Technology.

September 2007

The University established the Surrey International Institute at Dalian in China in partnership with Dongbei University of Finance and Economics (DUFE).

December 2009

The University demonstrated, for the first time, control of electronic quantum information in a silicon chip.

The University of Surrey had a total of 15,187 students, comprising 9996 undergraduate students, 3991 postgraduate taught students and 1200 postgraduate research students. Of this total number, 4868 were international students from over 140 different countries. A further 2490 were students registered for Surrey awards at our associated institutions and 906 were students studying in China for the first stage of DUFE-SII programmes.

120th Year

January 2010

Following the merger in 2008 with leading drama school, the Guildford School of Acting, the University welcomed students to their new building on the Stag Hill campus.

May 2010

The Medicines and Healthcare Products Regulatory Agency (MHRA) awarded the University of Surrey Clinical Research Centre (Surrey CRC) standard accreditation for conducting clinical pharmacology Phase I trials.

2011

The University of Surrey will celebrate its 120th year since its initial foundation as Battersea Polytechnic, and its 45th year in Guildford.



Geodesic dome



Terry's Pond

Did you know?



The infrared laser diode, at the core of CD and DVD technology, was discovered at Surrey and was recently voted the fifth most important scientific discovery of all time.

Surrey graduate Sir Alec Issigonis designed the Mini Cooper.



The University Library is named after Sir George Edwards, our first Pro-Chancellor, who led the design of Concorde.

Surrey's Centre for Environmental Strategy has been contributing to the government's sustainable development agenda and policies for ten years.

Surrey was the first university to offer Hospitality Management and Tourism Management programmes – and is still ranked No. 1 in every UK league table and third in the world.

Legendary rock band Led Zeppelin played their debut live gig on campus in 1968.

Surrey's innovative Tonmeister programme for music students remains the leading course of its kind in Europe with the average student achieving better than four As at A level.

Surrey's Professor of Physics Jim Al-Khalili was nominated for a BAFTA in June 2010 for his BBC series 'Chemistry: A Volatile History'. In October 2010 it was announced that his BBC documentary 'The Secret Life of Chaos' won Best Film at the International Science Film Festival in Athens.

Surrey was the first university in the UK to have a Starbucks on campus, which opened in November 2007.

The Surrey Research Park is one of only three science parks in the UK still owned, funded and managed

by the university that opened it. Surrey's spin-out company SSTL is the most successful small-satellite company in the world and has launched 37 satellites.

Surrey works with over 500 companies worldwide.

Surrey Sports Park hosted the International Women's Rugby World Cup in summer 2010, involving 12 international teams, with television audiences across 128 nations and 1.5 million viewers in the UK alone.

Surrey is ranked first in the UK for employment for its graduates with 97 per cent employed within six months of graduation, and is unequalled in its employability over the last ten years.

In the 1980s, Surrey researchers led the development of SIMOX, a method of making silicon chips widely used in information technology.

The iconic stag sculpture by Allan Sly positioned at the entrance to Stag Hill



120th Year

University of Surrey
Guildford, Surrey, GU2 7XH

T: 0800 980 3200 / +44 (0)1483 689905

F: +44 (0)1483 683948

E: enquiries@surrey.ac.uk