



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

Knowledge Exchange & Innovation

AWARDS 2014

Monday 2 June 2014
East Midlands Conference Centre,
Nottingham, United Kingdom



Welcome

**Knowledge
Exchange &
Innovation**

AWARDS 2014

Celebrating excellence in knowledge exchange and innovation



This University has long been a pioneer of the exchange of knowledge, going back to the roots of the institution and the early work with Boots on drug discovery at the start of last century, through to the ground-breaking achievements on Magnetic Resonance Imaging towards the end of the century.

Our pioneering and enterprising spirit lives on into the new Millennium, founded on high-quality academic endeavour, but recognising the need in parallel to seize commercial opportunities across the world.

Knowledge exchange is now firmly established as a key feature of the research process. With the increasing emphasis on delivering impact, I believe that knowledge exchange has never been more important to the University's future sustainability, as global competition heats up.

We are aiming to consolidate the University's position as a UK leader in knowledge exchange, almost doubling income from industry over the next five years, and setting bold new targets for knowledge exchange performance internationally.

These inaugural Knowledge Exchange and Innovation Awards aim to celebrate some of the outstanding work staff and students across all of our campuses have been undertaking in the areas of business engagement, innovation and enterprise.

I would like to congratulate all the nominees here this evening and thank everyone who entered these awards from the UK, China and Malaysia.

I hope you enjoy the evening.



Professor David Greenaway
Vice-Chancellor, The University of Nottingham

Programme

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- 6.00pm Drinks reception and expo of shortlisted entries in the Atrium
- 6.45pm Call to dinner
- 7.00pm Welcome: Vice-Chancellor Professor David Greenaway
- Starter
- Knowledge Exchange Awards:
- Arts
 - Social Sciences
 - Medicine and Health Sciences
- Main course
- Knowledge Exchange Awards:
- Science
 - Engineering
 - International
- Dessert and coffee
- Innovation and Entrepreneurship Awards:
- Alumni entrepreneur of the year
 - Student enterprise
 - Spin-out company of the year
 - Academic enterprise
- 10.00pm Professor Chris Rudd, closing remarks and finish

About the Knowledge Exchange and Innovation Awards

This evening's awards are split into two categories – Knowledge Exchange, and Innovation and Entrepreneurship.

The purpose of these awards is to celebrate and recognise outstanding knowledge exchange and innovation activities across The University of Nottingham, amongst academic staff, students, alumni and also within the University's spin-out businesses.

Knowledge Exchange Awards

Awards will be given in the categories of 'Business Engagement' and 'Societal Impact' with a winner in each category from each faculty.

- **The Business Engagement Award** will be presented to the academic team which can demonstrate that their collaboration has made a significant impact on a specific business or group of businesses.
- **The Societal Impact Award** will be presented to the academic or academic team who can demonstrate that their work has made an impact on society more widely.
- **The International Award** is for academic colleagues at University of Nottingham Ningbo China and at University of Nottingham Malaysia Campus who have undertaken significant knowledge exchange work.

Innovation and Entrepreneurship Awards

The awards in this category are:

- **Alumni Entrepreneur of the Year.** The alumni entrepreneur award is for the alumnus who has demonstrated significant entrepreneurial success and expertise over the last year within their own business.
- **Student Enterprise Award.** The student enterprise award will go to a student who has demonstrated entrepreneurial flair and creativity and who shows the greatest potential to succeed in business.
- **Spin-out Company of the Year.** This award will be given to the spin-out company which can demonstrate that it has made a significant leap forward over the last 12 months.
- **Academic Enterprise Award.** This award recognises an academic who, over the course of his or her career, and through pioneering work, has pushed the boundaries of knowledge exchange for the benefit of both industry and society.

About the finalists

Most of the finalists listed tonight are project leaders who manage a much larger team comprising researchers, professional services staff and others. Although we are unfortunately unable to thank each one of these people individually at the Knowledge Exchange Awards tonight, we want to take this opportunity to recognise the great contribution that every individual has made to the success of these projects. Thank you!

Welcome
to the KE&I
Awards 2014

Our guest presenters

Master of Ceremonies



Quentin Rayner

Quentin Rayner is Chief News reporter and a regular presenter on BBC East Midlands Today. His thirty years as a broadcaster have included spells at Westminster, the News Channel, the Today programme and Newsnight. He said: "When I started out as a rookie reporter in Local Radio, the radio car was a huge thing with a pneumatic mast and long cables. These days, a smartphone app is all you need. Now that's innovation!"

Guest presenters

Alumni Entrepreneur Award – Ian Rhodes

Ian is a Senior Partner in the PA Consulting Group and leads the Technology and Innovation business for the Health and Life Science Industry. Ian is an Engineering alumnus from The University of Nottingham and has spent over 25 years working both in industry and as an advisor with a focus on bridging the gap between commercial and emerging strategic opportunities, and the implementation that is needed to realise returns for both investors and patients.

Ian's passion is for the development of new products, services and where necessary new businesses within the Life Science industry. Ian is currently leading a major new strategic initiative to bring substantial risk capital from the City of London to help deliver on the promises set out in the 'Innovation, Health and Wealth' paper in the 2011 Autumn Statement.

Student Enterprise Award – Hardev Singh

Hardev is a Trustee of the Haydn Green Foundation. The Haydn Green Foundation has been set up in memory of the late Haydn Carrick Green. Haydn was a successful Nottingham businessman, whose entrepreneurial flair brought innovative financial products to the market.

The Trust has donated £1.5 million to The University of Nottingham to promote innovation and entrepreneurship. The substantial gift builds on the achievements of the University's Institute for Enterprise and Innovation (UNIEI), which since its launch in 2000 has become a key national centre for entrepreneurship education. In honour of the endowment, UNIEI has been re-named The Haydn Green Institute for Innovation and Entrepreneurship.

Spin-out Company of the Year – Tracy Allan, HEFCE

Tracy leads the Higher Education Funding Council for England (HEFCE) in interaction with universities and colleges in the East and West Midlands. She has oversight of regional developments and maintains contact on behalf of the Council with regional agencies and stakeholders across the Midlands.

Tracy has been with HEFCE since 1991 and has been a Senior Policy Advisor in the Learning and Teaching Policy team where she led on teaching funding policy, including student number controls.

Academic Enterprise – Dr Lesley Thompson, EPSRC

Dr Lesley Thompson has responsibility for managing the overall EPSRC portfolio, commissioning £740 million per year for research and postgraduate training in engineering and the physical sciences and managing relationships with its research base.

Lesley took over as Director in December 2006. Previously she was an Associate Director Research Base which included coordinating the national capability Programmes including Engineering, Chemistry, Mathematical Sciences, Materials, ICT and Physics and has been Head of several programmes including the Life Sciences Interface from inception.

Knowledge Exchange Awards – The finalists

Faculty of Arts

Dr Will Bowden – Community Archaeology as Citizen Science: embedding research into the regional heritage agenda.

The Caistor Roman Town project created a community archaeology organisation focused on the investigation of one of the UK's most significant Roman sites. The project enabled local volunteers to participate in a major research initiative, while the research results informed management strategies and generated new public understanding of heritage.

Dr Paul Grainge, Dr Cathy Johnson – Using knowledge about TV & Digital Promotion to support business planning for Red Bee Media and the BBC.

Grainge and Johnson have been pioneering the study of the promotional screen industries. Through engagement with key media practitioners they have helped one of the UK's leading broadcast design companies, Red Bee Media, to develop its strategic planning in TV and digital promotion. They have also generated new ways of thinking about the role of promotion that has influenced the BBC's use of online content, allowing it to generate new value from some of its archive material.

// If we all did the things we are really capable of doing, we would literally astound ourselves. //

– Thomas Edison

Dr Jon Henderson – Field testing cutting edge sonar technology to deliver commercial benefits to an offshore engineering company.

This collaboration with the Nautilus Marine Group International (NMGI), a North American offshore engineering company, was described by HEFCE as ‘an exemplary example of Knowledge Transfer’. It has allowed NMGI to improve its product and find new markets for the application of its acoustic scanner. They have subsequently donated an MS Sector Scan Sonar to the University and entered into a long term collaboration to offer the equipment and training in its use to the UK maritime heritage sector.

Professor Antoni Kapcia – Providing intelligence on Cuba to shape policy and to inform governmental, business, journalistic and diplomatic communities.

Professor Kapcia is recognised as ‘one of the top Cuba experts in the UK’. His research has had far reaching influence on policy formation internationally, specifically helping to inform and shape UK government policy towards Cuba. This is sustained through an advisory relationship with the Foreign and Commonwealth Office, which influences the policy community in Washington and internationally through the provision of intelligence to the Americas Program at the Center for Strategic and International Studies in Washington D.C.

Dr Jonathan Tallant – Changing software through metaphysics.

Dr Tallant has deployed research in metaphysics and presentism to help refine and enhance software tools and generate commercial value for two IT companies. This has resulted in substantial benefits for the partners, who have developed a successful database tool and event planner tool as a result of Dr Tallant’s work.

Professor Zoe Trodd – Influencing antislavery debate, policy and practice.

Professor Zoe Trodd has contributed to changes in antislavery policy debate and practice at local, national and international levels, from lawyers’ societies and schools, to national non-governmental organisations (NGOs) and the European Parliament, which form part of the effort to abolish slavery.

// I have no special talent.
I am only passionately curious. //

– Albert Einstein

Faculty of Social Sciences

Professor Olympia Bekou – Fighting impunity through technology: Strengthening the capacity of criminal justice institutions to investigate and prosecute international crimes. By offering universal access to knowledge, skills and expertise through new technologies, the International Criminal Court (ICC) and States are empowered to overcome the key challenges restricting their ability and capacity to pursue justice for atrocities and to put an end to impunity efficiently and effectively.

Professor Christine Hall – Bike! Remembering Raleigh.

A cross-disciplinary project which brought university staff and students together with Raleigh workers and a range of community groups in Nottingham to explore and enjoy the history of the Jubilee Campus site and to create a lasting resource for the study of local history.

Dr Scott McCabe – Informing Social Tourism Policy and Practice.

A two year Knowledge Transfer Partnership project with a small charity providing financial assistance to enable severely disadvantaged families to experience a holiday. The partnership influenced government policy, established new relationships with and practices in the tourism industry and informed the development of new services and systems for the charity, having a transformational impact.

Professor Julia O'Connell Davidson – Challenging Conventional Wisdom on Human Trafficking.

Human trafficking has been represented in international and domestic policy as a vast and ever growing problem, affecting every corner of the earth. This project developed a critique of the dominant discourse on 'trafficking'.

Dr Ulf Henning Richter – Global Mentorship Program.

The Global Mentorship Program(GMP) brings together 100 of our best students from UNNC and 100 internationally renowned business executives. GMP mentors help students define professional goals, provide career advice and help graduates to enter into the professional world to become future leaders. The most promising students are matched up with motivated mentors from the corporate sector, not-for-profit international organisations and government, who can provide invaluable insights to students.

Faculty of Medicine and Health Sciences

Professor Roger Bayston – The effectiveness and further potential of novel technology for reducing disabling infections and healthcare costs.

Professor Roger Bayston and his team have developed a novel technology to create catheter devices which resist bacterial infection over long periods, reducing the need for repeated surgery and antibiotic treatment and improving the outcomes and quality of life for people with neurosurgical conditions and head injuries, promising similar benefits for those with spinal injuries and kidney failure.

Professor Martin Green – The design and implementation of a national mastitis control plan for British Dairy Herds.

The development and delivery of an innovative knowledge exchange platform for the British dairy industry, by integrating existing research knowledge into a national scheme for control of bovine mastitis, to improve the financial and environmental sustainability of dairy farming and enhance animal welfare.

Professor Dileep Lobo – Improving patient outcome by optimising perioperative fluid therapy.

This research team, led by Professor Lobo, has helped to radically change the way that intravenous fluids are prescribed to patients who are undergoing major surgery. It has also helped to reduce postoperative complications by up to 41% and hospital stay for patients by 3 days, resulting in potential financial benefits of £122 million a year to the NHS.

// Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less. //

– Marie Curie

Faculty of Science

Professor David Clarke – Influence on National and International Road Safety Policy. The Accident Research Unit (ARU) at Nottingham influenced decision-making processes for government road safety executives across the globe, helping to frame national and international government policy on road safety in the UK, Europe, America and Australasia.

Professor Peter Licence, Professor Martyn Poliakoff – Empowering chemists in Ethiopia through Green Chemistry. School of Chemistry researchers have been at the forefront in promoting and establishing green chemistry in developing nations. Working with and influencing colleagues and policymakers in both the UK and Africa, they have increased awareness of the importance of sustainable technologies that meet the needs of local communities. As a result, they have invigorated the chemistry teaching curriculum in Ethiopia, placing green chemistry at its core.

Dr Erik Murchie – Plants see the light: Measurement of plant growth and health for optimal crop yield in LED horticulture. Dr Erik Murchie's project aims to deliver a smart lighting solution, bringing all year round growing at much lower cost, in response to the needs of horticultural plant crops, whilst reducing waste by controlled growth and ripening to create a new industry sector with hundreds of new jobs.

Dr Kang Nee Ting – Development of a new BSc Hons in Biomedical Sciences at UNMC. The introduction of this programme has brought in talented students and award winning staff to the University. The area of research and teaching expertise at UNMC has expanded into the field of medical sciences, focusing on tropical communicable and non-communicable diseases.

Dr Nicola Pitchford – Using Digital Education Technology to support learning in two international contexts. What started as the development of software to help learners of English to differentiate sounds in spoken words, has grown to include the dissemination of maths training software to Malawian schools and an emerging partnership with an international development organisation.

Dr Gregor Tanner – Enhancing the vibro-acoustic modelling of built up structures. Research undertaken on the modelling of noise and vibration in large scale engineering structures led to the creation of a numerical simulation tool called Dynamical Energy Analysis. This is now used in a commercial environment by consultants to the transport sector and has attracted investment from the likes of car manufacturers and shipbuilders.

Faculty of Engineering

Dr Richard Bingley – Measuring changes in land and sea levels. Public policy relating to flood risk management for the South East of the UK during the 21st Century has been informed by Nottingham's novel work in measuring and projecting changes in land and sea levels. This work is helping to protect more than a million people and billions of pounds' worth of property.

Dr Mei Fong Chong – A new bioreactor for biogas production through the digestion of Palm Oil Mill Effluent (POME). Palm oil mill effluent (POME) is the major pollution load into the rivers of Malaysia. This research project has invented a new bioreactor technology for efficient power generation from the biogas produced during the digestion of POME. This will solve the water pollution and energy problems faced by the palm oil industries.

Dr Wee Kang Choong – Inclusive built environment – do we care? This project helps future engineers in Malaysia to understand the needs of socially disadvantaged groups and to be aware of the necessity to be inclusive. In addition, the project has impacted on students' perception about these groups. This is important as these future engineers will be involved in design, construction and maintenance of an environment and facilities for special needs students. The project is also linked in with Bethany Homes, which provided internships for UNMC students.

Professor Seamus Garvey – Modelling and control of vibrations in systems with integrated electrical machines to assist in delivering high value contracts for aero-engines. Properly understanding how mechanical and electrical subsystems interact is essential for ensuring that they work harmoniously. Failures by other engine builders in the past, to achieve and act on that understanding, have led to regular problems. As modern engines are required to deliver more and more electrical power, the interaction becomes more important.

Edwin Goh Boon Hoe – Quality Assurance of Survey Field Courses (SFC): An approach to measure the outcomes based education (OBE) in the Civil Engineering Curriculum of the three campuses. Outcomes Based Education is an essential criterion of the 1989 Washington Accord for the recognition of international engineering programmes. The aim of this project was to evaluate the attainment of Learning Outcomes (LOs), and Programme Outcomes (POs) in Engineering Surveying across The University of Nottingham's three international campuses.

Professor Edward Lester – Enabling access to a wider coal supplier base for the UK power industry. A novel method for coal analysis that accurately predicts combustion performance, allowing power generators to measure the quality of coal before and after purchase and thus buy coal from a range of global sources. This method is now routinely used by major UK power generators.

International Knowledge Exchange and Innovation Awards

University of Nottingham Ningbo China

Dr David Siu-Yeung Cho – Nottingham-Sondrel School of Integrated Circuit Design Training. This training is a unique CPD programme collaborating with industry. The project was initiated due to the increasing demand for engineers who are able to effectively work in integrated circuit (IC) design industries in China. It greatly enhances student employability by offering highly practical technical courses as well as improving their workplace language and skills. The success of this programme serves as an example of how universities can successfully work alongside industry to improve employability and showcase UNNC's academic excellence and its ability to run highly successful knowledge transfer partnerships.

Dr Ulf Henning Richter – Global Mentorship Program. The Global Mentorship Program (GMP) brings together 100 of our best students from UNNC and 100 internationally renowned business executives. GMP mentors help students define professional goals, provide career advice and help graduates to enter into the professional world to become future leaders. The most promising students are matched up with motivated mentors from the corporate sector, not-for-profit international organisations and government, who can provide invaluable insights to students.

University of Nottingham Malaysia Campus

Dr Jitkai Chin – Micropropulsion system for next generation miniaturised space transport assets. This project was started in 2009 with the aim of developing a chemical propulsion system using Hydroxylammonium Nitrate (HAN) as the fuel. In 2010 the team was invited to collaborate with the National Space Agency Malaysia (ANGKASA) to collaborate on chemical-based micropropulsion systems and later, next generation rocket fuel – Ammonium Dinitramide (ADN) due to the experience and success in developing the Hydroxylammonium Nitrate fuel. The micropropulsion system is now in the commercialisation stage.

Dr Mei Fong Chong – A new bioreactor for biogas production through the digestion of Palm Oil Mill Effluent (POME). Palm oil mill effluent (POME) is the major pollution load into the rivers of Malaysia. This research project has invented a new bioreactor technology for efficient power generation from the biogas produced during the digestion of POME. This will solve the water pollution and energy problems faced by the palm oil industries.

Dr Denny KS Ng – Planning and synthesis of a sustainable palm oil based integrated bioenergy system. This project introduced a systematic framework to assist decision makers and design engineers to determine the optimum allocation of palm-based biomass for bio-based chemical and biofuel productions, as well as heat and power cogeneration. Based on the proposed framework, integrated user-friendly computer tools for industry applications were developed.

// It is possible to fly without motors, but not without knowledge and skill. //

– Wilbur and Orville Wright

Innovation and Entrepreneurship Awards

Alumni Enterprise

The Alumni Enterprise award will be awarded to one or more graduates of the University, who have demonstrated their entrepreneurial ability and consistent success in their business venture. The recipient of this award will be announced on the night.

Student Enterprise

Awards will be presented to the outstanding student entries from each of the UK, Malaysia and China campuses.

Illona Brodovska – Campus Seller

Campusseller.co.uk is a new and unique service within The University of Nottingham which allows students and staff to dispose of books or any other goods which they no longer want and wish to sell. The business was established by four young entrepreneurs with a multi-cultural background. They believe that they are helping the University to be more sustainable by maximising the value of goods which students want to sell. The project received £100 from the Student Venture Challenge to launch the business and won a place at the National Apprentice Challenge.

// Your assumptions are your windows on the world. Scrub them off every once in a while, or the light won't come in. //

– Isaac Asimov

Lim Jaan Cherng – Amputees deserve a second chance!

This project by University of Nottingham Malaysia student, Lim Jaan Cherng, involved creating a virtual reality prosthetic right arm and a brain wave classifier to control the arm. The virtual arm has been created with the '12 degrees of freedom' so that it represents the advanced prosthetic arm that may be built in the future. The system is currently able to control the up, down, left and right movement of the shoulder joint and further study is being done to control the virtual arm as it may be a stepping stone to create an affordable system for all amputees and physically disabled patients.

Mark Christian – Laughing Matters. Laughing Matters is an East Midlands social business which provides free comedy based courses for individuals with previous addiction problems and mental health issues. The aims of the course are to help improve confidence, self-expression and communication in a safe environment. Participants gain insights into writing, idea generation and stage presence and have the chance to perform their own material to an invited audience at the end of the course.

Tom Dryden – The Freefall Camera. The Freefall Camera was designed by a team of four mechanical engineers who are striving to produce the world's first freefalling robot to film skydivers. Currently a 'camera flyer' is needed to film skydivers. The freefall camera robot which they have designed tracks skydivers in freefall and deploys its own onboard parachute to pilot itself to a safe location on the ground, ready to be used again.

Jiaju Wang and Kun Li – DuGreen: Waste classification for resource saving and recycling. Waste classification is crucial for resource saving and recycling, but it is a new concept in China where awareness of waste classification is poor. In China, one person can generate 300kg of waste annually, totalling nearly one billion kilos of rubbish. DuGreen, a UNNC campus project is assisting students, staff and cleaners to recognise different grades of waste and rewards them for doing so. Waste is now successfully classified by students and staff, collected by cleaners and recorded on a Smart phone application which automatically awards credits for those with DuGreen cards. DuGreen's average weekly collection is 600 cartons and 1300 plastic bottles. Twenty three local shops now give discounts to students who have credits on their DuGreen cards.

Spin-out Company of the Year

Professor Ted Cocking – Azotic Technologies

Azotic Technologies licensed the N-Fix® technology from The University of Nottingham during March 2012. This technology was initially developed by the University's Professor Ted Cocking. It enables crops to take up nitrogen from the atmosphere thus reducing the use of expensive and damaging nitrogen based fertilisers. It is estimated that the annual cost of damage caused by nitrogen pollution in Europe is £60 billion—£280 billion a year.

The N-Fix® technology inoculates plant seeds with beneficial bacteria to create a mutually beneficial symbiotic relationship. It is environmentally friendly and contains no toxins. It is based on *Gluconacetobacter diazotrophicus*, a food grade bacterium, which is organic and non GMO.

Azotic Technologies has received significant investment over the last year, which is enabling it to conduct more field trials on the N-Fix® technology and to establish a research base at BioCity in Nottingham.

Professor Barrie Hayes-Gill – Monica Healthcare

Monica Healthcare was formed following 15 years of collaborative research between the University's School of Electrical and Electronic Engineering and the Department of Obstetrics.

The company has devised technologies for foetal and maternal heart monitoring using electrophysiological systems that provide improved and constant monitoring through a simple, wearable device which offers significant benefits over existing systems.

Monica's products are now being used in hospitals throughout the world. The company is based at BioCity Nottingham and has secured both seedcorn and venture-capital funding.

Professor Ed Lester – Promethean Particles

The expertise of Promethean Particles lies in the development of an original process for nanoparticle production, derived from research from the University's School of Chemical and Environmental Engineering.

The company designs, develops and manufactures inorganic nanoparticles to customers' specifications and frequently performs feasibility studies to establish developments according to customer needs.

Its underpinning continuous hydrothermal synthesis technology, the SWiNG reactor, enables nanoparticle production in aqueous dispersions. The company is based at Nottingham Science Park and has received seedcorn funding.

Academic Enterprise

The Academic Enterprise Award recognises an academic, who, through their pioneering work, has pushed the boundaries of knowledge exchange for the benefit of both industry and society.

Dr Andrew Hopkinson – Faculty of Medicine and Health Sciences

Dr Andrew Hopkinson and Professor Harminder Dua have developed an innovative biological bandage, derived from the sac surrounding the developing baby, which instead of being discarded as waste, has been transformed into highly effective and affordable medicinal plaster to treat painful ocular injuries and save sight.

Whilst working together in Academic Ophthalmology, Hopkinson and Dua developed Omnigen™ a ground-breaking medicinal biological bandage, which actively promotes enhanced ocular surface wound healing to prevent blindness.

The treatment has huge applications for the military to help wounded soldiers, but also for civilian application in accident and emergency situations. Applied directly to the wound dry, and without the need for specialist surgical expertise and theatre environments Omnigen™ will be the first fully validated, effective, low cost, directly accessible treatment for ocular injuries. The technology is being developed and marketed through their spin-out company, NuVision™.

Dr Gianluca Sergi – Faculty of Arts

Dr Gianluca Sergi's work has helped to push the University to the forefront of international screen industry engagement. He is helping to enhance our reputation in transformational research, generating income from industry partners, improving global employability of students and enabling the screen industry in the UK to rise to the opportunities and challenges presented by China's emerging power in this sector.

Dr Sergi has established industry partnerships with leading companies in China and Hollywood for potentially transformational research and identified different ways for creative talent development that can compete globally.

Dr Sergi's work is enabling and fostering a research environment where engaging with the film industry is seen as a logical, organic and effective way to make research relevant beyond the academic community, and where leveraging research output is seen as an effective way to contribute to the well-being of an industry sector and the people working in it.

It is unusual to have developed so many academia-to-industry projects in this sector, boasting a range of large industry partners worldwide including Fox Studios, Dolby Laboratories, Youku Tudou (the Chinese YouTube), as well as Oriental DreamWorks and The Art Directors Guild of America among others.

Professor Colin Snape – Faculty of Engineering

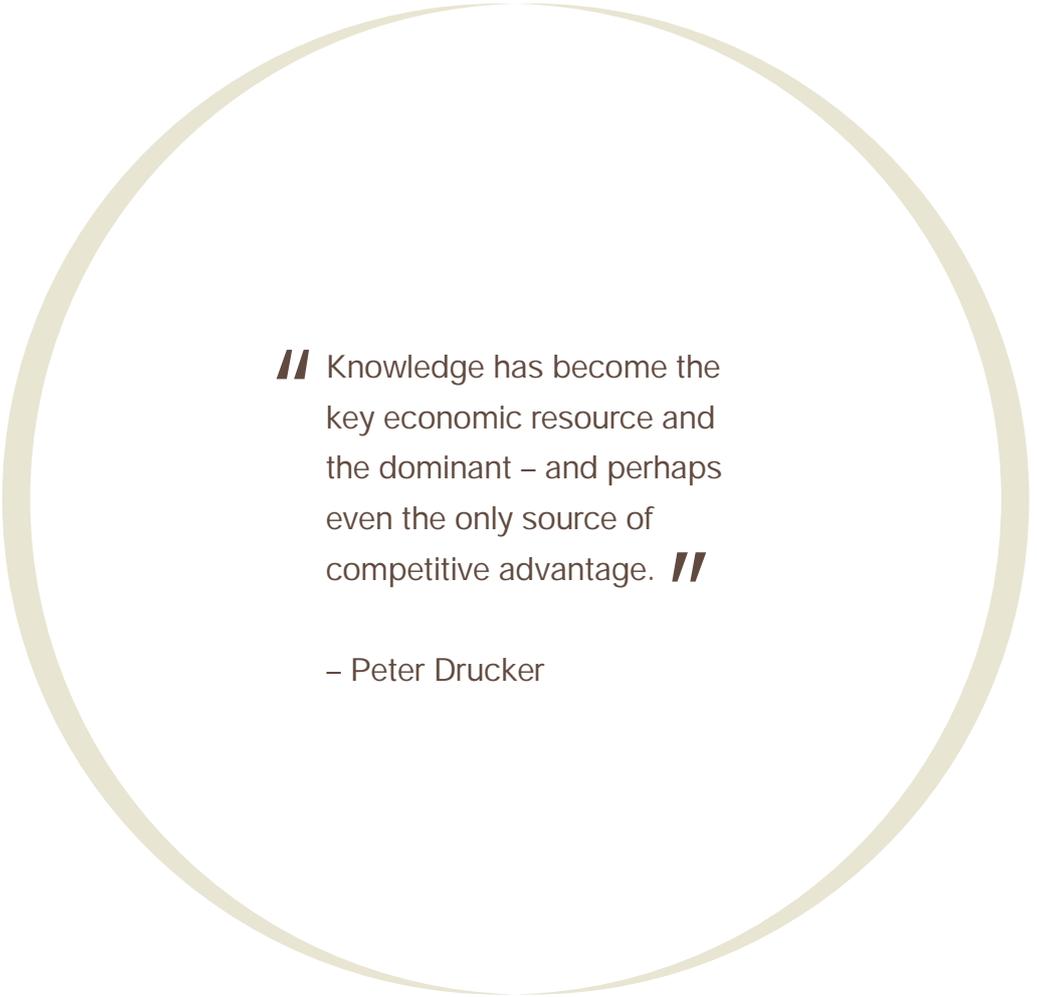
Professor Snape's career spans an impressive 35 years in industry and academia, encompassing many aspects of fuel science and related disciplines. Overall, his research has been innovative and application led. Early in his career, Professor Snape was active in the application of new NMR methods which are still used today to characterise structurally complex hydrocarbon products. He also obtained patents for hydrolysis to establish this as a viable route for converting coal into high yields of liquid products.

After moving to The University of Strathclyde, Professor Snape began to develop hydrolysis as a flexible characterisation method with a diverse range of applications. As a result, an exclusive license was granted to Strata Technologies Ltd to manufacture hydrolysis units. These units have been sold in the USA, Europe, China and Australia.

Since 2000, Professor Snape has been instrumental in establishing Nottingham as an internationally recognised centre for fossil energy. His innovative research on carbon dioxide capture technologies has resulted in many contracts with the EU, UK Government and EPSRC. Recently he has developed extremely effective CO₂ absorbents that are saleable and are now the subject of pilot scale activities. This research was carried out with a number of Chinese partners as part of collaborative EPSRC projects.

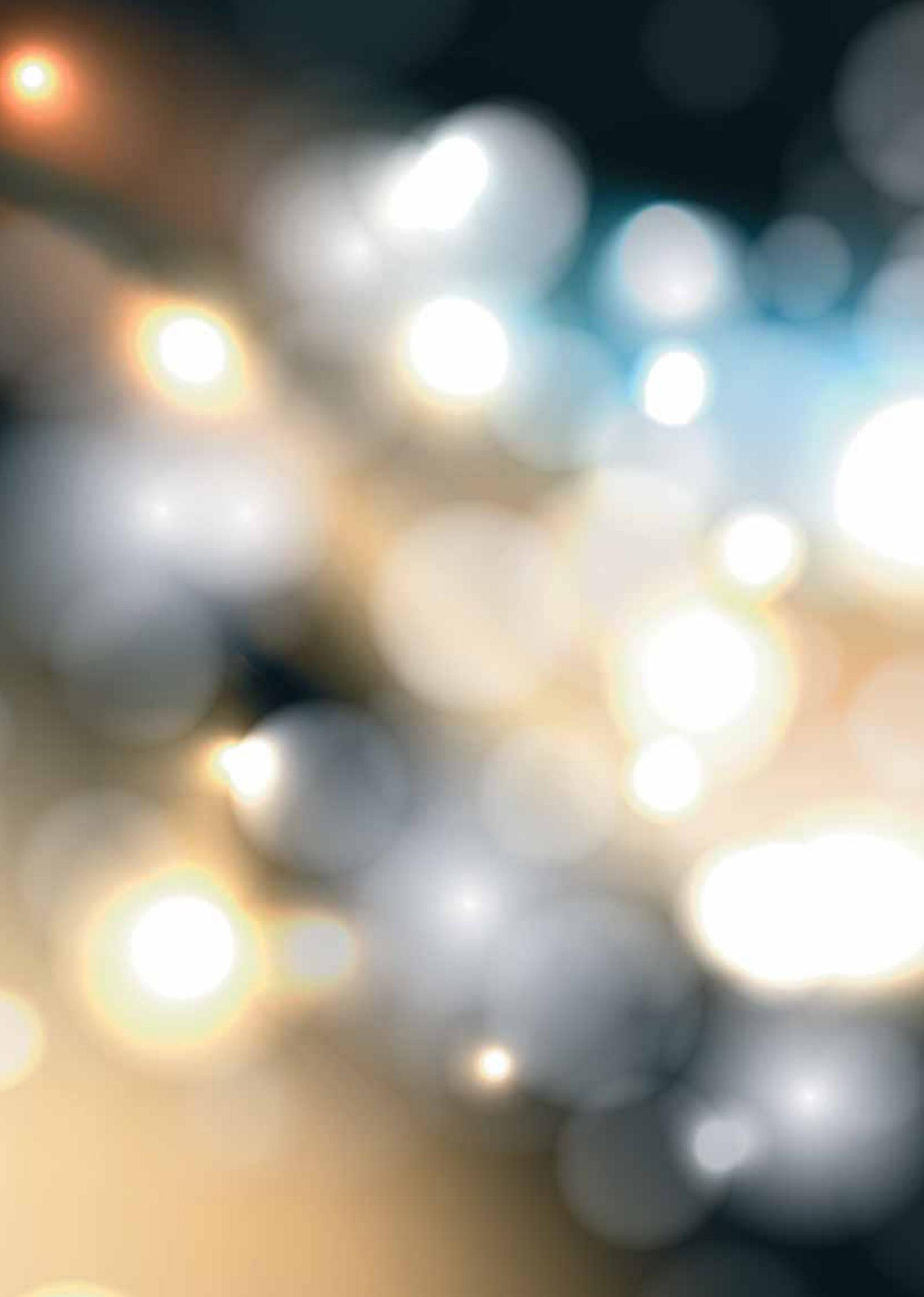
Since 2009, Professor Snape has directed the Engineering Doctorate Centre (EngD) in Efficient Power from Fossil Energy and Carbon Capture Technologies. This has involved over 45 doctoral projects involving over ten academics at Nottingham with projects across 15 companies.

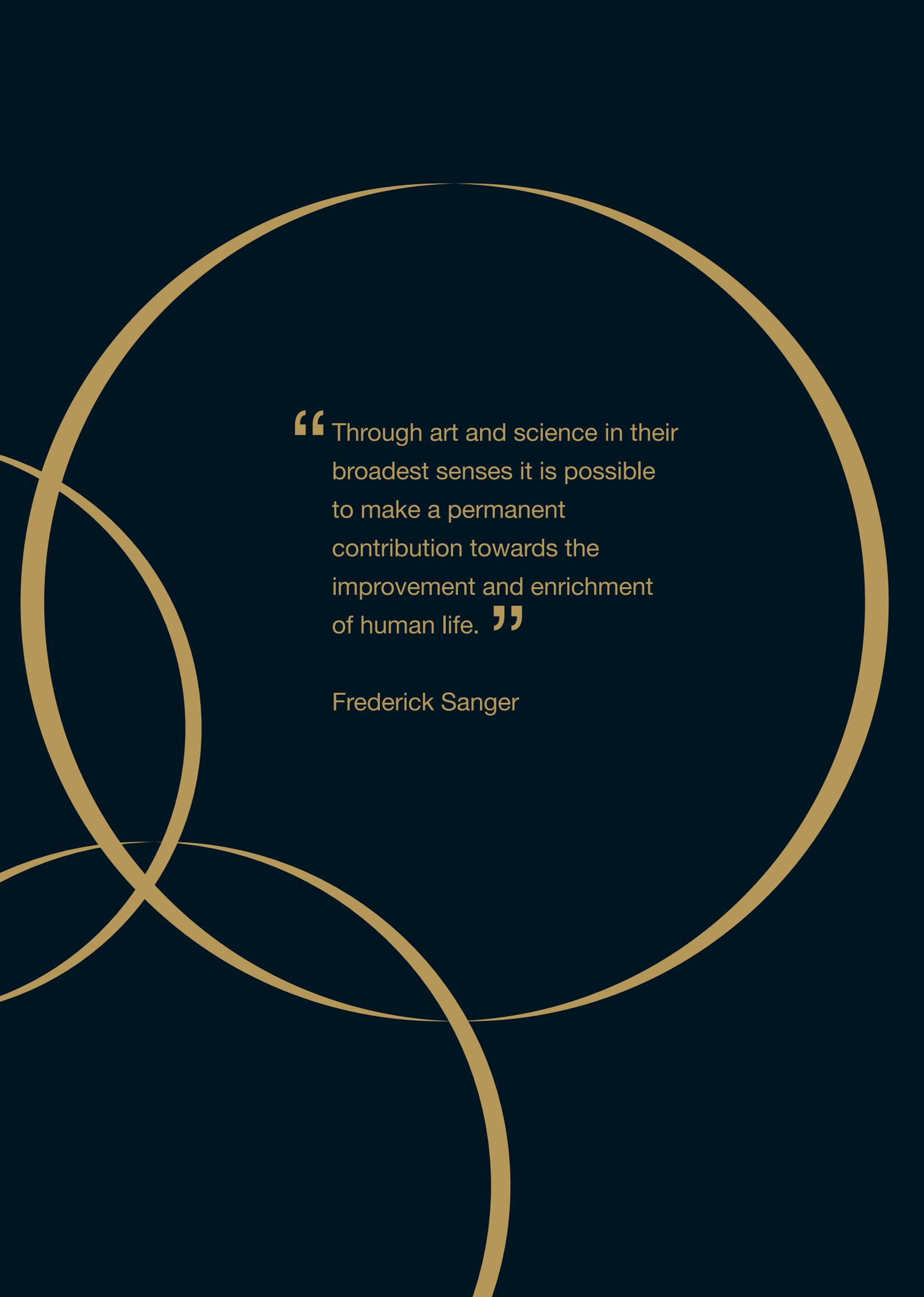
Professor Snape's pioneering work has resulted in a string of accolades from the likes of the World Anti Doping Agency, the Engineer magazine's Business Support of Universities Award and the Storch Award for lifelong achievement in fuel science.



// Knowledge has become the
key economic resource and
the dominant – and perhaps
even the only source of
competitive advantage. //

– Peter Drucker





“ Through art and science in their broadest senses it is possible to make a permanent contribution towards the improvement and enrichment of human life. ”

Frederick Sanger



The University of
Nottingham

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