



**London
South Bank
University**

EST 1892

**Research,
Enterprise &
Innovation**



Annual Review 2015/2016

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Our successes

This year we have been recognised with several prestigious awards. These awards celebrate everything from our physical infrastructure and the buildings where we operate, to the ecosystem and culture of entrepreneurialism that we have established at LSBU. We are immensely proud of our achievements.

Times Higher Education Awards – Entrepreneurial University of the Year

The Times Higher Education Awards are widely regarded as the Oscars of the higher education sector, shining a spotlight on the outstanding achievements of institutions, teams and individuals working in higher education across the UK.

The award recognised LSBU’s work in 2014-15. Over the year, we supported 600 local small and medium-sized enterprises (SMEs), boosting growth and creating jobs, engaged more than 10,000 students and staff in enterprising activities, and supported 220 student and graduate business ideas.



Global Consortium of Entrepreneurship Centers – Outstanding Emerging Entrepreneurship Center

This significant achievement celebrates LSBU’s commitment to supporting students and graduates to develop their enterprise skills, and recognises the Clarence Centre for Enterprise and Innovation as a central hub for this activity across campus.

The Clarence Centre provides a unique environment for LSBU students and alumni entrepreneurs to work alongside SME tenants, offering opportunities for skills development and start-up support.

Institute of Enterprise and Entrepreneurs (IOEE) Celebrating Enterprise Awards – Highly Commended

The IOEE awards, organised in partnership with the Small Firms Enterprise Development Initiative (SFEDI Group), recognise the very best in enterprise learning and skills development across the UK.

The commendation celebrates LSBU’s commitment to supporting students and graduates to become the next generation of entrepreneurs, develop their enterprise skills and start up their own businesses.

The judging panel commented

“LSBU has demonstrated how a vision can be translated into action, within curricula, through the work of its staff and then more widely across their local, national and international networks. We are particularly impressed by the number of students engaged, the breadth of enterprising activity the University is involved in and the depth of employer engagement. LSBU shows a truly entrepreneurial approach to its pivotal role in the community and academic endeavours.”

About us

Since opening over 120 years ago, mission has changed little – we continue to improve the employment opportunities of south Londoners and support the community by providing access to relevant applied knowledge that helps business flourish. Today, all this is completed in markets that have an increasingly global reach.

We encourage our students to be innovative and enterprising, ensuring they enter the working world with the relevant experience and skills to succeed. We also support our staff, students and alumni to foster their own enterprises and develop entrepreneurial insights.

As the partner of choice for entrepreneurial organisations seeking to address challenges facing society, we build opportunity through highly successful collaborations. Also, by connecting businesses and public sector and voluntary organisations with our academic expertise and cutting-edge Research and Development facilities, we help them innovate, grow and improve performance, generating wealth and adding to the UK economy.

We ensure our knowledge and research have value and application in the real world. Our solutions not only ensure that businesses’ needs are addressed, but they also create opportunity and deliver lasting change.

LSBU is a civic and enterprising organisation with the drive and vision to become London’s top modern university.



P. Ivey
Paul Ivey

Pro Vice-Chancellor for Research and External Engagement

Director’s review

The 2015-16 academic year marked the department’s first full year of operation. It has seen us create firm structures and establish strong foundations, built upon the previous year’s reorganisation. Part of this has involved hiring additional staff members to move towards delivering key strategic goals.

Our market-facing Institutes have been instrumental in securing key relationships with external businesses, which has led to over £2 million in sales. They have been a highly successful vehicle for raising the profile of LSBU in the marketplace and showcasing our institution to a wider business community, which has marked a significant step change for the University.

In the past year, two major projects were completed to fully audit the strength, breadth and depth of the University’s research activity. Our own mini REF not only broadened awareness but was excellent preparation for the establishing of a research environment.

In addition we published the University’s first ever brochure of academic and postgraduate research. The ‘Our Research Community’ brochure was a fantastic way to celebrate our thriving body of research and the talented individuals behind it.

In 2015-16, we supported even more student enterprise activities, creating a range of mutually beneficial outcomes. Local SMEs nurtured the individual skills of LSBU students and in return our student specialists were able to create real-world change for the businesses. Having secured ERDF funding to create our highly successful Investment Escalator scheme, which not only reached but surpassed its targets, we are forging ahead to secure further grants.

Our three incubator sites continue to thrive and are home to a range of established SMEs. We take occupancy rates of 95% as a strong external endorsement that our well-priced and accessible incubator environment is meeting the needs of the communities we aim to serve.

Whether supporting PhD students, 688 external businesses or 220 student and graduate business ideas, Research, Enterprise and Innovation (REI) at LSBU has had another highly successful year delivering real-world impact.

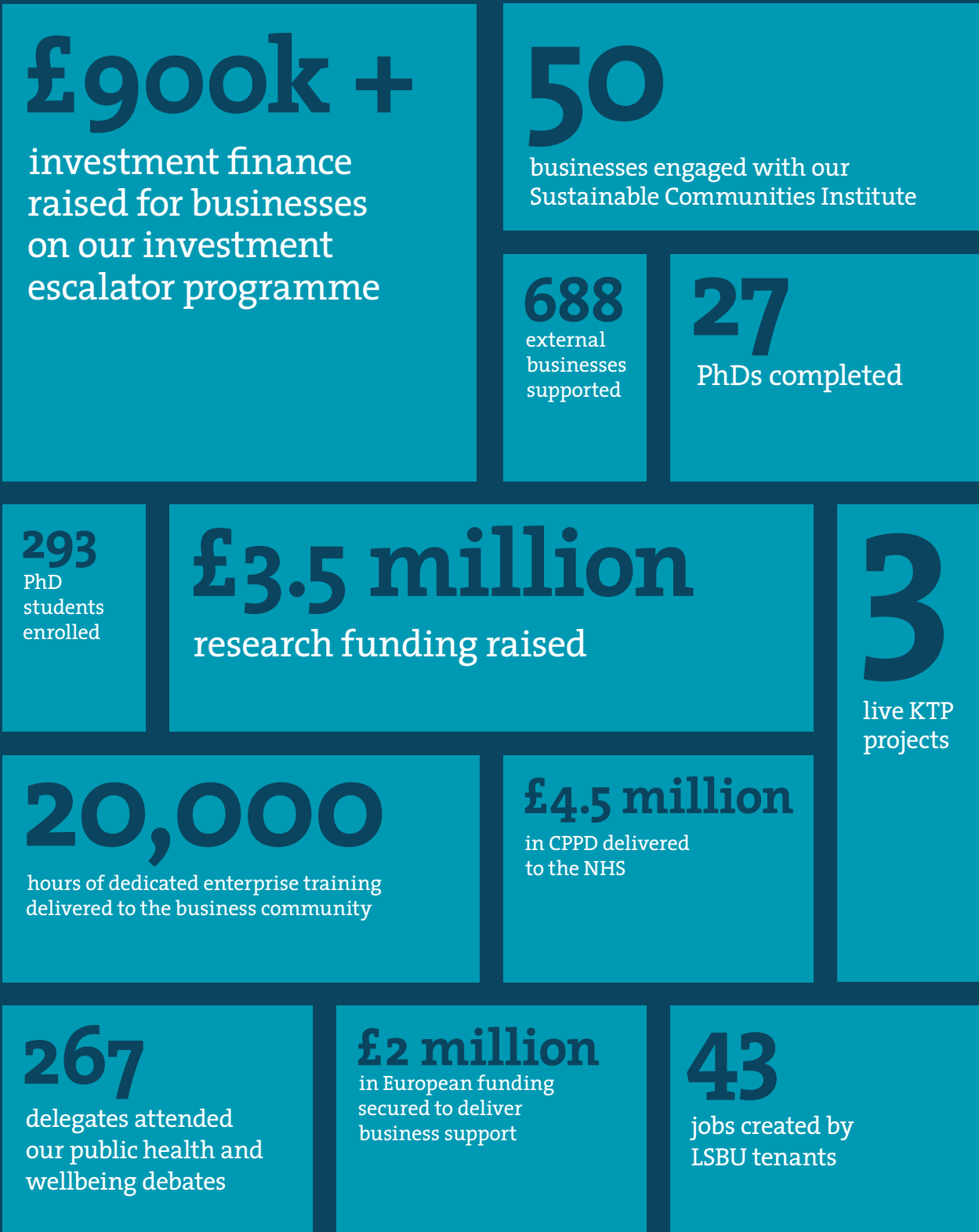
The REI Annual Review applauds our major achievements in the 2015-16 academic year.



Gurpreet Jagpal
Gurpreet Jagpal

Director Research, Enterprise and Innovation

The year at a glance



Central Research Services

Our clear agenda is to deliver real-world impact. A key driver in achieving this is ensuring we provide dynamic, evidenced-based education, underpinned by highly applied research and enterprise activity.

The 2015-16 academic year saw us take a number of major steps towards implementing the University's REI strategy. At the strategy's core is the drive to build capacity and capability by creating a vibrant research environment that is efficient and engages all staff.

To provide research opportunity for all, while promoting and capturing excellence and impact, we have developed a strong team of staff who actively engage with the University's Schools. Now, all Schools have a named contact for pre-award and postgraduate research support, and there is an Impact Manager and REF Co-ordinator working across all Schools.

We continue to actively stimulate the University's research environment through a number of new initiatives, including the Research Sabbatical Scheme, the creation of the Researcher Development pathway and a bespoke range of training programmes. We carried out the University's first Annual University Research Audit this year and we will use this to strategically allocate resources, as well as capture data on the University's research groupings. Doing so will assist our overarching aim to implement and embed a cross-campus approach to all research, enterprise and Knowledge Exchange activities.

LSBU successfully retained the European Commission HR Excellence in Research Award in recognition of our commitment, the value we place on our researchers' work and our broad interest in career development of our research staff. It was acknowledged that this in turn improves the quantity, quality and impact of our research. The 'excellence in research' badge commits the University to a programme of internal and external evaluation by researchers' membership organisation Vitae on behalf of the European Commission.

Research awards

Our success in raising research activity and securing research grants in line with targets continues to grow year on year. In the 2015-16 academic year, our research was recognised and funded by RCUK, major charitable trusts and the EU, amongst others.

Interests in health and wellbeing have been the backdrop to various pieces of work.

Among them, WIN was a healthy-weight initiative for nurses which was led by LSBU's Jane Wills in association with the RCN, RCN Foundation, Burdett Trust for Nursing and C3 Collaborating for Health in a co-designed project that piloted three interventions in the NHS to enable nurses to maintain a healthy weight. Then, in a partnership with Sport England, Lambeth Council and local sports delivery companies and charities, a team from LSBU was led by Dr Katya Mileva and Dr Rita de Oliveira to take on the project This Girl Can Lambeth. This three-year project started in January 2016 and is investigating the barriers and facilitators around engaging young females in physical activities and sports.

In a pan-European project, Neil Adams and Dr Philip Pinch from our School of Law and Social Sciences were funded by ESPON, the European Union agency responsible for commissioning research into aspects of spatial planning and territorial cohesion across Europe. They are now part of a network created from a range of universities to deliver a €869,700 project called 'Compass' comparing and evaluating European planning systems and forms of territorial governance. This builds on their two previous ESPON-funded research projects, PURR which examined the potential of rural regions and KITCASP which developed key indicators for territorial cohesion and spatial planning through working with practitioners and stakeholders across the EU.

LSBU research has also been having an impact in our local, London and UK communities. Research lead Charles Graham's work with Southwark Council has been considering footfall and surrounding local businesses to optimise public space. A project in collaboration with the Metropolitan Police London saw LSBU marketing students developing concepts to spread positive and achievable messages around crime prevention. Working in collaboration with the Anglican church, academics carried out an extensive project investigating the occurrence of burnout in today's clergy. The UK-wide control group took part in an intervention study and survey, with their work supported by the Archbishops' Council and several dioceses.

CryoHub

Solving the problem of energy storage

More and more of our energy comes from renewable energy sources such as wind, tidal and solar power, but we're still lacking the technology to store excess energy from periods of high production for release during periods of low production or high energy demand.

A breakthrough would be of great significance to the energy industry globally.

LSBU's School of The Built Environment and Architecture, one of the leading urban engineering and sustainability research centres in the UK, is investigating the potential of a promising new technology which could provide a solution – cryogenic energy storage (CES).

In September 2015, LSBU and a pan-European consortium of researchers were awarded a £7 million grant to support a three-and-a-half-year project entitled CryoHub. At the

centre of CryoHub is the prospect of using CES to store and generate electricity on a mass scale. Professor Judith Evans explains how the CES technology works in practice:

“CES essentially uses cheap, off-peak electricity to convert air into a liquid, which can then be stored over a long period of time in a storage vessel. Turning the liquid back to gas, by removing it from the store and applying heat to it, will produce a huge increase in volume and pressure – enough to power a turbine to generate electricity which can then be supplied back to the grid.

“Because the liquid can be taken out of storage on demand, the technology can be used to restore electricity to the grid when energy demand is predicted to outstrip supply. It could also be used locally, also saving grid energy. CES is therefore a great complement to renewable energy

sources, as it effectively safeguards against any periods of intermittent supply and helps to stabilise the energy grid.”

While at present a highly promising technology, CES is not yet efficient enough to be rolled out on a large scale, as the system currently has relatively low ‘round-trip’ efficiency when you compare the energy going in with the energy coming out.

CryoHub hopes to improve CES efficiency by aligning it with pre-existing powerful cooling and heating facilities found in industrial refrigeration warehouses and food processing plants. It is hoped that clever design and integration of existing equipment for cooling and heating processes will enable sufficient efficiency gains to be made to make the technology market-viable in the near future.

TWI partnerships

Rise of the robots



Safety-critical structures such as nuclear power reactors, offshore oil and gas platforms, and wind turbines require continuous inspection. The majority of these inspections – known as non-destructive testing (NDT) – are carried out manually and expose inspectors to major health and safety risks.

Studies have also shown that manual inspection can miss major defects in safety-critical structures due to human error.

In August 2015, the London South Bank Innovation Centre (LSBIC) for Automation of NDT was established to create the next generation of autonomous robotic systems that can carry out inspections with little or no human operator involvement.

Since its inception, the partnership between LSBU and TWI – one of the largest research and technology organisations in Europe – has gone from strength to strength.

TWI has funded £2 million in R&D projects and £336k in student grants to support three PhD projects. TWI's 700 industrial member companies have access to LSBIC's research, resulting in a direct route to application.

Professor Tariq Sattar, who heads up the LSBIC, “We are excited about providing innovative solutions to the inspection needs of TWI's industrial members. This is a wonderful opportunity to take our innovative prototype robots to the next stage of technology readiness level where they become regularly employed in industry to perform inspection tasks. They will keep human operators out of harm's way and increase the profitability of industrial operations by reducing downtime and outages.”

Professor David Mba, LSBU's Dean of the School of Engineering and LSBIC board member, said: “The UK's industrial strategy has identified robotics and autonomous systems as one of the eight great technologies

in which the UK is set to be a world leader. Therefore this is a tremendous opportunity to demonstrate the impact of many years of fundamental research in robotics which London South Bank University has pioneered.”

Professor Tat-Hean Gan, Associate Director of TWI, said: “I am delighted that London South Bank University has entered into this agreement with TWI to establish the London South Bank Innovation Centre. The collaboration is strengthening TWI's technical expertise in automated inspection, especially for harsh and complex environment applications.”

LSBIC operates from TWI's newly constructed 25,000m² world-class facilities in a thriving, industrially driven, professional working environment in Cambridge.

Over the next five years, LSBIC hopes to see at least eight PhD completions and is on course to commercialise at least two robotic NDT systems within the next three years.

Research degrees

293

PhD and professional doctorates enrolled in 2015-16

24

PhD completions in 2015-16

2

professional doctorate completions in 2015-16

10

overseas partnerships with British University Egypt PhDs



PhD profiles

The research of our PhD students tackles a broad range of real-world concerns, with results that bring about life-changing enhancements.



Ashley Howard
The developmental trajectory of drinking behaviours in relation to IBA

The main area of the research is primarily alcohol interventions. This will be further explored by studying alcohol consumption levels, the nature of student drinking practices and the content and delivery of interventions with all types of drinker.

The focus of the research is to understand the components of interventions and what constitutes an effective strategy in relation to students' alcohol consumption. Additionally, the research will examine the underlying and predisposing factors that contribute to drinking practices among students in the UK.

The research will explore the use of Identification and Brief Advice (IBA) interventions that are currently some of the most effective strategies. Many of the impact factors that affect students throughout the life course will be explored in the research to ascertain any commonalities and links to alcohol consumption levels. Investigating these areas with undergraduates and knowing more about the alcohol consumption and types of drinking that occur on campus will provide adequate understanding to appreciate campus culture at the University.

The main emphasis in the research is to devise an intervention strategy that supports IBA techniques and incorporate it into the treatment of alcohol consumption on campuses nationwide.



David Cowan
Sustainable cooling for London

This research study aims to investigate the energy demand and carbon footprint of cooling (and heating, to the extent that it can impact both cooling demand and overall energy use) in a city and urban environment, by identifying and characterising the carbon emissions associated with alternative building design concepts, building services, building management systems and modes of operation. The various mechanisms of refrigerant leakage have been determined through systematic site surveys across several systems and used to compile generic data and to publish guidance on reducing refrigerant emissions. A high-level energy balance model and software tool have been developed for estimating a building's energy flows from all sources and for calculating the heating and cooling energy required to achieve and maintain the required internal environment, together with the associated emissions from the installed building services.

The software tool is being used to model typical buildings and compare the results with existing benchmarks and available data. The methodology will enable the models and benchmarks to be refined and used to estimate the potential impact of measures aimed at reducing energy demand and carbon emissions from buildings and RACHP systems in an urban environment. The simulation results will be used to develop a climate change hierarchy and to suggest design concepts and approaches that could help to reduce the RACHP sector's emissions in future.

Although the study uses London UK climatic and demographic data, the methodology used is generic and could be applied elsewhere.



Andreas Scheel
Social media as innovation laboratory – competitive advantages of the open, networked enterprise

Due to intensified competition and shorter product life cycles, firms and their managers are facing numerous challenges nowadays. In addition, R&D budgets are shrinking and new competitors are entering the market. All this renders it difficult and/or expensive for companies to gain or retain a competitive advantage. Thus the pressure to innovate continuously is rising. One possible way out of this dilemma is to enhance the open innovative potential by actively opening up the innovation process. This innovation strategy, conceptualised by Henry Chesbrough in 2003, has been widely discussed over the last decade. Even though incorporating external sources into the innovation process of a firm could be an auspicious strategy to ensure continuous innovation, the open innovation concept has only been formalised to a limited extent and has so far been applied in an inefficient way. The misuse of the concept can be very costly, regardless of the size of the concerned firm.

This leads to the essential problem that should be addressed with this investigation: How can firms use the open innovation paradigm in a more effective way? The proper application of the social media concept is one possible answer.

Both open innovation and social media have become hot topics over the last 10 years. These two phenomena were widely discussed in the scientific world as well as adopted by a lot of companies worldwide. The aim of this investigation is to bring together these two concepts and answer the question of how firms can use social media to open up their innovation processes and generate or retain competitive advantages by identifying key innovation drivers in the most effective way.

Building success strategies for 'kitchen-table' charities

There are a vast number of small charities across the world set up to help people in need. They are not well known and don't have massive marketing budgets, as every penny is going to the people who need it most. Known collectively as 'kitchen-table' charities, these UK-registered charities are run by trustees and volunteers who characteristically hold meetings around their kitchen tables.

They often tend to be informally run and are founded on, and driven by, passion and compassion. Janine Fitzgerald's PhD is looking at the sustainability issues these charities face when funding education in sub-Saharan Africa.

The findings of Janine's work will be incorporated to create an original and practical resource that existing and start-up kitchen-table charities can adopt to help them cope with any sustainability issues.

"I'm interested in mitigating the factors that have a negative effect on the sustainability of the charities' work. My research's first objective is to identify and explore problems that can affect the sustainability of both the charity and the educational project. From there, I will investigate and record ways to prepare for and overcome these issues."

The numbers of UK charities providing funds specifically for educational purposes in Africa is significant. The UK Charity Commission website provides comprehensive information on all registered UK charities. A total of 180,664 UK charities were registered in November 2014, of which approximately 130,000 operate within an income band of £0-£100k per annum and are therefore considered small.

Janine's work is tackling:

- donor dependency of both charities and their beneficiaries
- personal dilemmas around emotional attachment and detachment
- any gulf between the culture of the charity and the culture of the project, with particular reference to the quality of education
- changes in the energy and enthusiasm of charity trustees
- planning for an exit strategy
- unexpected crises
- donor fatigue.

From a professional and personal position, Janine has been inspired to take on this detailed research into the factors that can negatively affect the sustainability of small charities. Understanding the possible ramifications should funding cease will help charities to fully understand the risks and help them know how to avoid them.



Health and Wellbeing Institute

Our strong multidisciplinary approach, in collaboration with many public, private and third sector organisations, is highly accomplished at generating ground-breaking ideas that deliver new products, systems change and bespoke training.

Successful activities over the 2015-16 academic year show continual growth for the Institute. We launched several substantial projects, including our Digital Health Working Group; more than 35 members from across the University's Schools have come together to form a diverse subject pool developing and exploiting valuable know-how through collaboration and sponsored activities. Additionally, we launched the Health Systems Innovation Lab, a multidisciplinary collaborative consortium, bringing together specialists and experts by experience, to share best practice locally, nationally and internationally to challenge existing systems for positive change.

We have continued to work closely with the NHS across London and beyond to enable a fully trained and confident workforce. Topics delivered have been at all levels, from fundamental nursing qualifications up to board-level organisational development. LSBU continues to support key NHS initiatives such as Sustainability and Transformation Plans, and was successful in winning the Darzi Fellowship Programme, delivered in partnership with the London Leadership Academy. Darzi fellows from multi-professional backgrounds, including doctors; nurses and midwives; allied health professionals; paramedics; dentists; healthcare scientists; and pharmacists are supported by this bespoke leadership development programme now offered by the University.

The People's Academy celebrated its second year and continues its valuable work to challenge perceptions around illness and promote the importance and benefits of 'expertise by experience'. Working with a range of external clients, the academy took on various assignments, among them a research project for mental health charity Mind on understanding peer support, and active involvement in Tech Londoners, a City Hall pilot scheme partnering with SMEs focused on producing healthcare innovations through co-production.

Our ongoing series of free public health debates continued with a varied portfolio over the past year. Topics discussed included "nursing bursaries" and "sugar addiction". Additionally, interest in the University's range of 'living labs' still grows and projects built around them include:

- Atrial Fibrillation pop-up events with Imperial College Health Partners for healthcare professionals along the treatment pathway, developing understanding and how technology can aid condition management
- SimDH, our EU and LSBU funded project supporting digital health SMEs develop novel processes/products/services by providing access to simulated environments as innovation test beds in addition to academic expertise.

After another highly effective year for the Institute, plans are already well under way for further activity in the next academic year.

267
number of delegates
attending HWI debates

£3.4m
in commercial activity
since Institute's
inception in June 2015

70
partners worked with
across the Institute

£4.5m
worth of CPPD
delivered to the NHS
by the end of this
financial year

Health Systems Innovation Lab

The NHS is currently facing one of the most challenging political and financial environments in its near-70 years of existence. In order to survive and flourish for another 70 years, it will need to develop and change quickly, adapting to new ways of working and learning from its own successes and failures.

Through the Health Systems Innovation Lab at LSBU, Professor Becky Malby is hoping to address that. The Lab offers a new and unique way to facilitate networking and peer learning within the NHS.

“Scaling up change is a gigantic challenge for any organisation,” says Becky. “The NHS is no different. While some places in the NHS are really good at some things, they are not so good at others, and other parts of the country may have completely different strengths and weaknesses. We’re here to enable place-based change, helping locations improve what they do and learn from each other, and we’re aiming to get people hungry for change – and then empower and enable them to make it happen.”

Change is perhaps more difficult to implement within the NHS than other organisations due to its interconnected nature – changing one seemingly small element can have a knock-on effect in other service areas. In such an environment, there is no ‘one size fits all’ answer to best practice, so, for Becky, a strong network to discuss and enable change is key.

“It’s about reciprocity,” she says. “It’s not about one place having all the answers, because it never works like that. Places are usually ahead on some things and behind on others, but through sharing and encouraging the spread of knowledge, we can create a network that helps everyone.”

One important element of encouraging that change, Becky feels, is the way the Health Systems Innovation Lab is aiming to give younger career professionals a seat at the table. “Often, health leaders don’t involve the young and emerging leaders in change work, but they are actually often more suited to it,” she says. “They are used to peer-based learning and aren’t caught up in hierarchies. A big part of what we are doing is giving them the support they need to develop a stronger voice in the system. If we’re going to find a solution to this very complex problem, we need to have these young leaders involved in it.

“It’s the kind of project that works brilliantly somewhere like LSBU, because there is such a strong background here of co-production of this kind of learning, and that’s

something the NHS needs to do better – to listen to other voices,” says Becky. “It’s something I’m passionate about too. I’ve been a public servant all my life and worked in clinical teams, as a general manager and more in the NHS, so I know that what we are doing works.”

Although the Lab is still in its infancy, Becky is pleased with some of the early progress that has been made. “It’s already happening, even though we are brand new in this sphere,” she says. “People are starting to work with new peer groups, networking together and sharing insight and intelligence. There’s more to do, but we are off to an encouraging start.”

To find out more about how the Health Systems Innovation Lab is changing the future of the NHS, visit www.lsbu.ac.uk/business/expertise/health-wellbeing-institute/health-systems-innovation-lab.



Addictive behaviours

Addictive behaviours affect large numbers of the UK population, with 1.6 million people believed to be dependent on alcohol in England and Wales, and 1 in 7 children living with a substance-abusing parent.

As a result, the UK spends billions on services associated with managing addictive behaviours, such as healthcare, welfare and policing. Alcohol abuse alone costs taxpayers £21 billion each year.

While costs matter, it is the human consequences that present the real tragedy. It is vital that we increase our understanding and knowledge of how addictive behaviours operate so that we can change and manage them for the benefit of everyone.

The Addiction and Health Psychology group at LSBU are at the forefront of this endeavour, carrying out internationally recognised research into a range of addictions.

The group take a psycho-social view of addiction, as Dr Dan Frings explains: “We don’t limit ourselves to chemical substances or behaviours recognised in clinical manuals. We see addictive behaviours as any which are habitual, hard to control and difficult to stop yourself doing. So, potentially, a wide range of behaviours can be seen as addictive, from drugs, to eating, to checking social media.”

This broad definition is reflected in the variety of work they do. They have undertaken research into every addiction you can think of, from methadone use, e-cigarettes, gambling and alcohol (both problematic and everyday), to crack addiction, sexual compulsivity, eating behaviours, social media use, chocolate consumption, sugar consumption, smoking and novel psychotropics.

The group are currently working on numerous projects. They are always on the lookout for new partners and new projects to further their understanding of addictive behaviours.

The Pub Lab

The research team have use of a fully stocked bar laboratory, known as the Pub Lab, which allows them to conduct social experiments. It’s equipped with cameras and microphones, and offers a level of experimental control that wouldn’t be possible in a normal pub environment.

Mini case studies

Responsible drinking messages backfire, leading people to drink more

Research found that poster materials promoting responsible drinking were associated with increased consumption among undergraduate students, suggesting that poster campaigns to reduce alcohol harms may be having the opposite effect to that intended.

Personality traits predict problematic social media use

The research found that personal and social variables appear to explain perceived frequency of Facebook use and problematic Facebook use among adolescents. Both need to be taken into account by researchers and educational practitioners.

- Emotional stability, extroversion, conscientiousness and group norms directly predicted problematic Facebook use.
- Gender, group norms and social identity predicted perceived frequency of Facebook use.

E-cigarettes: Low nicotine liquid leads to higher consumption

The study explored whether e-cigarette users engage in more intensive puffing when they switch from a high- to a low-nicotine-strength e-liquid.

- Liquid consumption and puff number were higher, and puff duration longer, in the low-nicotine-strength condition.
- Blood nicotine delivery remained significantly higher in the high-nicotine-strength condition, reaching 34mg/ml in just 10 minutes (equivalent to levels achieved in cigarette smoking).
- With the recent implementation of the Tobacco Products Directive in Europe this year, those using nicotine levels exceeding 20mg/ml will be obliged to switch to a lower-nicotine-strength e-liquid.
- Our results suggest that such individuals will increase their liquid consumption, which may, in turn, increase exposure to potential toxicants and carcinogens in e-liquid aerosol.

The group work with and alongside other organisations to carry out their research, including:

- Cambridge University (Behaviour and Health Research Unit)
- Drinkaware
- HAGA
- King’s College University London
- Lifeline
- Norwich Medical School, UEA
- Queen Mary University
- Queensland University, Australia
- Roswell Park Cancer Institute, US
- Turning Point
- UK SMART Recovery
- University of Manchester
- University of Padova
- University of Porto
- Westminster Drug Project

Sustainable Communities Institute

The Sustainable Communities Institute (SCI) brings together specialists to develop new ideas, products and services that offer high-impact, sustainable solutions to some of society’s biggest challenges.

Collaborating with other universities and a broad range of public, private and third sector leaders, we create a powerful voice to influence government policy and practice. Working with start-ups and SMEs, we facilitate the development of projects promoting sustainability that best utilise LSBU’s specialist knowledge, facilities and equipment.

The 2015-16 academic year was highly successful for us. We won a European Structural Investment Fund low carbon bid valued at £1.2 million. The Access2Innovation project will enable 30 SMEs to develop and prototype new, low carbon products and services using both LSBU’s equipment and expertise.

The year also brought about steady growth for ongoing projects. The Institute’s work to bring about the world’s first anti-interference system for mobile devices goes from strength to strength. In collaboration with Hughes Electronics Ltd, we are set to produce the world’s first connector to combat interference on mobile networks. The WaveWay® will mitigate sources of Passive Inter Modulation (PIM) that cause weak signal strength, slow data speeds, buffering, dropped calls and overall poor performance of mobile phone networks.

Having won £2.9 million of Innovate UK funding in 2013, we continue to be the only university taking part in a consortium of seven for the Balanced Energy Network (BEN) project. This pioneering work is set to deliver both a physical and digital network to integrate systems enabling the balancing of heating, cooling, electricity demand and carbon, while also reducing costs. LSBU has proven to be an ideal location to house the network’s infrastructure, allowing the innovation to be tested against the practical challenges of retrofitting a project in a dense urban environment.

In April 2016, we held our first in a series of free, open-to-all Institute debates around sustainability issues within the built environment. Organised in conjunction with CIBSE and the All-Party Parliamentary Sustainable Built Environment Group, the debate series has been established to raise issues, incite change, develop awareness and promote sustainability. Lively discussions were had, with more than 100 delegates coming together for the year’s topics: Regulation vs Self-Regulation, Energy Efficiency vs Wellbeing and Generalist vs Specialist Learning in the Built Environment.

The Institute continues in its work and ambitions to be a leader in developing new thought and novel approaches to solving the big challenges of air pollution, climate change, escalating urban housing costs and a move away from a carbon-based economy.

£1m+
enterprise
funding won

50
businesses
engaged with

30+
businesses partnered
with on projects

£2.9m
funding won to build
UK’s first Cold Water
Heat Network

The heat is on

The Paris Climate Agreement, and its subsequent ratification, sets out some challenging targets for the UK. LSBU is working hard to find ways of minimising the impact of civilisation on the environment and contribute to decarbonising the economy.

New design practices mean the buildings we construct today have less of an impact on the environment, but around 90% of the buildings that will comprise London in 2050 are already built.

The majority of the existing building stock in the UK is extremely energy inefficient, especially in regard to heating, which makes up half the UK's energy use. The Climate Change Committee says the Paris targets are unachievable without a near-complete decarbonisation from the heating sector. The UK currently has no answer to this challenge. A new way of tackling the problem is needed – and a consortium including LSBU experts might have a solution. A Balanced Energy Network (BEN) could have a big impact on reducing the UK's carbon emissions. It works on a simple principle – managing the use of available heat before consuming grid gas and electricity. BEN balances the delivery of heating, cooling and electricity in a way that minimises costs and carbon emissions. The network is a complex system of innovative technologies working together to effectively manage heat loads across multiple buildings. Using water to transfer heat in winter and to cool in summer, BEN can effectively take advantage of overheating different types of building and utilise the waste heat in other spaces or even store or recover heat from the London aquifer.

“The idea of heat sharing in itself isn't especially new,” explains LSBU's Andy Ford, Professor at LSBU. “It's been done in The Netherlands, although their aquifers are easier to get to than ours, which are buried under some quite complex geology. What we are doing that is different is looking at scaling it up, so rather than a single well working to heat and cool a single building, we can develop and deliver a whole network of connected buildings that share the same system. That's where

the challenge lies, and that's where what we are doing could play a huge part in helping the UK meet its carbon targets in the future.”

The pilot scheme, which will be one of the first of its kind, will connect LSBU buildings to the same heating system, giving the team the chance to see how it works in practice, refine their idea and increase the scope of the project again. “LSBU is a great place to trial it,” says Andy. “Not only is the campus made up of different types of building that represent a microcosm of London, we're also within walking distance of Westminster. That way, the prime minister can walk down and see how it works for herself – she won't even need to add to her own carbon footprint to see how she could reduce the nation's.”

The BEN project co-ordinator is the renewable energy company ICAX Ltd. LSBU is in a consortium of cross-sector partners, including TFGI, Upside, Mixergy, Origen Power and Cranfield University, that have been awarded a £2.9 million grant by Innovate UK, the UK's innovation agency, towards this £4 million project to build BEN on the University's campus.

LSBU and renewable energy company ICAX are leading a consortium of cross-sector partners that have been awarded a £2.9 million grant by Innovate UK, the UK's innovation agency, towards the £4 million project.

Big fan of heating

LSBU, London Underground and Islington Council are working together on a project called MICAH (Metropolitan Integrated Cooling and Heating) to use waste heat generated from the London Underground ventilation system to support the local community by heating nearby homes and businesses via Islington's existing district heating network.

LSBU and London Underground have been working together to solve heating and cooling issues for 15 years. Cooling the tube is a growing focus for London Underground. It involves the extraction of hot air from the tube system that is usually vented out at street level and is wasted.

The MICAH study is investigating the technical process and efficiency of using heat extracted from the tube system during the cooling process to support Islington's district heating network. The project also seeks to identify the environmental, social and financial value of doing so.

Like all the best ideas, the principle is simple. Heat will be taken from air in the underground system, at around 20°C to 30°C. It will be passed through

an air source pump which will transfer the heat into water, at a temperature of around 80°C. That water can then be pumped to homes and businesses via the network, heating their radiators and hot water systems.

London Underground is a precious untapped resource, and produces a huge amount of wasted heat and energy as a side effect of transporting Londoners around the capital. It's estimated that each year enough heat escapes from the Underground to heat 16,000 flats – that's a huge carbon saving if the energy can be repurposed instead of wasted.

Islington Council is seen as pioneering in this field, thanks to the Bunhill Energy Centre and heat network. At present, heat created while

generating electricity is used to provide heat for more than 850 homes, a swimming pool and a leisure centre.

If proved feasible, MICAH could provide the chance to heat a further 1,500 homes as well as a school and a nursery, while saving millions of pounds in heating budgets each year. It will also make the London Underground network more environmentally friendly.

MICAH is still in the early stages, and is some way off from being a solution to London's heating and energy requirements – but the work being put in now has the potential to change how we heat our homes and protect the environment for generations to come.

Way out

Way out

Knowledge Exchange Institute

We provide innovative solutions to organisational problems, with leading academics identifying current challenges before developing and delivering solutions to create real-world difference.

The 2015-16 academic year proved to be yet another very active one for the Institute. Our broad range of Knowledge Exchange Programmes continued to offer tailored solutions to businesses to optimise their company performance. By providing access to the University's expertise and skilled resources, these partnerships support a variety of needs and requirements, such as new product development, streamlining and product testing.

The Institute's main target for Knowledge Transfer Partnerships (KTPs) was to make changes to both the application and submission processes, but the challenges of a new staff team coming into place during the year restricted our ability to fully meet original goals. Fortunately, this small setback didn't prevent us from winning two new KTPs during the year or the Institute attracting a number of other consultancy projects, which not only led to revenue generation but also led to career starts for LSBU graduates.

Open Date Equipment Ltd's KTP is set to transform this major supplier of thermal transfer printers – the current and highly successful range of controllers and software, first developed in the 90s, was coming to the end of its productive life cycle. The project aims to re-engineer and enhance all existing Thermocode software and hardware using current best practice in electronics, control and software design.

We are undertaking specialist plumbing and electrical wiring and cabling in a public health construction project, for Redrose M&E's KTP. Taking the shell of a building through to final fitting, a mobile IT platform will improve labour and resource utilisation on similar construction projects and enhance data/communication pathways for real-time operational and situational awareness. This greater understanding of resources will reduce time and cost, lift productivity and enhance service delivery. Greater profitability for existing contracts is anticipated, alongside a new level of quality assurance to enable the company to win larger, more lucrative contracts.

This year also saw the launch of the Knowledge Exchange (KE) Voucher, providing research students with bursaries and allowing them to work with clients on real-world problems directly related to their areas of research. PhD students are given the opportunity to practically apply their area of study while acting as exceptional ambassadors for the University and providing clients with a flavour of LSBU's talents at solving business problems through innovative thinking. The first four trial KE Vouchers were successfully awarded and this has led to the growth of the programme for the 2016-17 academic year.

Finally, in spring 2016 we completed our KTP with Adande and a special mention must go to the project's KTP Associate, Dr Carolina Marques, an LSBU alumna. Her work has won her Innovate UK's prestigious Business Leader of the Future Award, in recognition of her outstanding work. Carolina is now Engineering Manager for Adande's new division, which was established as a direct result of the KTP.

2nd
London university
for KTPs

£451k
contract value

6
additional commercial
contracts won

Resin d'être

One of the raw materials for making industrial paint, which is used on everything from skyscrapers to cars, is powder coating, which is in turn made from resin. Resin production is big business: in 2014 the global unsaturated polyester resin market was valued at over \$7 billion and is set to double by 2022, offering considerable opportunity for organisations operating in the sector.

The global chemical company Nuplex is one such organisation; it specialises in the production of polyester resin for the powder coatings market.

Its resin is manufactured in discrete batches. The process is finished by cooling the resin from over 200°C to form a 2mm thick sheet. That sheet is fed into dicing machines that crush it into a powder, which is sold as the end product. It's an exact science but, as with any industrial process, there are always improvements and efficiencies to be made.

Nuplex came to LSBU looking for help in exploring ways to hone its cooling process. It wanted the cooled resin to be more uniform with less variation, but it still had to arrive at the dicing machine in a solid state to avoid the production line grinding to a halt. It

goes without saying that delays in production are extremely costly.

The urgency of the project meant a part funded KTP was not an option, so a plan was put together for a clinet funded KET (Knowledge Exchange Transformation Project), this utilises a graduate with support of academics. In this instance the graduate worked full-time for 3 months followed by a second 3 month project based on the success of the first project.

A KTP was established as the best way of delivering the project. A KTP includes funding for a graduate (or KTP Associate) to work full-time within the company and who benefits from the support of two academics with relevant expertise.

Renzo Huaynates was appointed to the role, with support and guidance

from LSBU academics. They set about examining the cooling process, identifying areas where improvements could be made.

Initial work showed that sections of the steel belt were not producing an even resin, with air pockets causing variations in the thickness.

Renzo drew up recommendations for Nuplex based on his findings. The specifics remain a closely guarded trade secret, but the results include more efficient cooling, increased output, fewer breakdowns on the production line and a better-quality resin at the end of the process.

Nuplex is investing heavily in new equipment on the recommendation of LSBU's work, and Renzo has stayed on at the company as a process engineer.

Light bulb moment

Housing associations are under constant pressure from the Government to reduce costs without compromising quality.



It's an extremely challenging environment in which to operate, forcing housing associations to implement regular cost-cutting exercises, such as using cheaper products. These save money in the short term but frequently drive up maintenance and replacement costs in the long term.

Many housing associations are concerned by this trend and are keen to look at innovative ways of addressing the issue.

LSBU's Life-Cycle Components project is doing exactly that, challenging the culture of short-termism within the housing association procurement process. Launched in 2016, it involves LSBU working as part of a consortium alongside local authorities, housing authorities, suppliers, contractors, consultants and those who live in the houses themselves. The project aims to demonstrate that investing in components that are proven to have a long life cycle will ultimately save money.

The experiment will see some houses fitted with products chosen specifically for their longevity and low maintenance costs, while others will be fitted with traditional components. The difference in performance between the two will

be monitored and measured, with the findings helping to inform future procurement decisions.

The project is due to run for 16 months, and the team at LSBU will assess a number of key measures to track the cost-effectiveness of the behaviour of the scheme partners.

Key measures will include:

- the cost of installing equipment
- how much it costs over its life cycle
- how satisfied tenants and landlords are with its performance
- the carbon supply chain and maintenance
- satisfaction levels within the supply chain.

It will feature findings from at least 500 properties, and the team is hopeful that the work will encourage a cultural shift within procurement in housing associations. By providing products that work better, require fewer maintenance call-outs, make residents and landlords happy and have a reduced carbon footprint, the team believes it has the chance to make a difference that will benefit everyone involved.

Alex Opoku, the Project Lead and Director of LSBU's Centre for Sustainability and Resilient

Infrastructure & Communities, certainly hopes so. "We believe that these reliable and cost-effective life-cycle components have the potential to revolutionise affordable housing provision and the role of supply chains," he says. "Initial purchase costs should not be the only important factor in building component procurement decisions; the costs over the life cycle of the parts ought to be considered too. If proven successful, this model could help housing providers across all sectors build more smartly and sustainably."

A significant shift in the procurement culture may be on the horizon; the project has already acquired 33 partners, all eager to learn how they can save money without compromising on quality... time will tell.

The experiment will see some houses fitted with products chosen specifically for their longevity and low maintenance costs.

Entrepreneurship and Innovation Institute

We motivate and support LSBU's students and graduates through an extensive programme of extracurricular activities designed to build their skills for business and to nurture their entrepreneurial ambitions.

To further develop their entrepreneurial mindset, we support all academic staff to embed enterprise into their teaching. The broad range of student support available is helping to establish a strong, entrepreneurial culture at LSBU.

The 2015-16 academic year was highly active for the Institute. We supported 5,000 students through our programmes. Our Digital Photography students incorporated and ran their own photography agency, the South Bank Collective Community Interest Company (CIC), and turned over £50k in their first year of operation. Our Entrepreneurs in Residence, with a broad variety of expertise encompassing legal, marketing/design and coaching, continue to provide advice, mentoring and support to LSBU's aspiring entrepreneurs.

We secured much external recognition for our work in 2015-16. The Institute's work has not only helped the University be named Entrepreneurial University of the Year in the Times Higher Education Awards 2016 but was key to LSBU's School of Business being recognised as a 'Centre of Excellence' by the Institute of Enterprise and Entrepreneurs (IOEE). We were also acknowledged as "a beacon of good practice" by the Small Business Charter assessors, with LSBU receiving a Bronze Award, and we were one of only 10 universities to be shortlisted for a Duke of York Award for University Entrepreneurship.

We continue to grow our offer to benefit LSBU's students. The opening of the Business Solutions Centre this year gives students from our School of Business the chance to develop their consultancy skills by offering a free drop-in service to local businesses. Trained Student Advisors, backed by the University's professional and academic staff, offer advice on small business accounting, marketing, social media and IT solutions. South Bank Entrepreneurs, LSBU's student enterprise society, has seen its membership rise from 6 to 130 and was nominated for 'Student Society of the Year' in NACUE's Awards – the UK's network of student entrepreneurship societies.

Finally, we secured £70k of funding, the most of any UK university, from the Intellectual Property Office to deliver ignite, a project to raise awareness of intellectual property that engaged 1,500 students.

By bringing together students, graduates, start-ups and more established businesses, the Entrepreneurship and Innovation Institute is creating a vibrant enterprise community at LSBU.

220
student and graduate
business ideas
supported

40%
of graduate internships
converted to long-term
employment

£50k
of turnover achieved
by student-led
photography agency in
first year of trading

1/3
of LSBU students
engaged with
enterprise support

60
graduate start-ups
supported

Life through a lens

With a turnover of over £50,000 and 35 client jobs completed in its first nine months, it's fair to say that South Bank Collective (SBC) CIC has made a great start to life as a photographic agency.

Major contracts have also been secured, including shooting the prestigious Fassi 2017 calendar in Italy and being commissioned by the Photographers' Gallery. It's a remarkable tale of success that is all the more impressive when you realise that the agency is staffed entirely by students from LSBU's BA (Hons) Photography degree.

"Students from creative backgrounds engage less with traditional enterprise programmes like business plan competitions and boot camps," explains SBC Director and Head of LSBU's Entrepreneurship and Innovation Institute Linsey Cole. "SBC changes that, preparing our students for a portfolio career by letting them run their own photography agency while they study. It also means that the south-east London business community can access fresh creative talent at competitive rates."

The students don't just get the chance to work on real briefs from real clients, though – they have been involved with SBC's development at every step. They have developed internal and external client bases, and created work to populate their website (which was designed by – you guessed it – LSBU web design graduates). They were involved in its incorporation at Companies House, and meet weekly to plan work, monitor finance and discuss future plans.

"Our students are now freelancers for the SBC," says Linsey. "It's teaching them the skills they will need once they get out there into the world, but it's also helping to bring on their photography as well. Everyone wins – especially our clients who have access to some of London's brightest new talent without having to break the bank."

The Fassi calendar

SBC's highest-profile work to date is arguably shooting the prestigious Fassi Crane calendar in Italy. Ten students from SBC were flown out for the shoot, capturing Fassi machinery in action – see some of the results for yourself: www.southbankcollective.co.uk

Preparing our students for a portfolio career by letting them run their own photography agency while they study.

Building for the future

For Pantelis Soteriou and Vanessa Cazaubon, sustainability isn't an added extra when it comes to architecture and design – it's an integral part of their business, E+C Associates.

"It's something that played a huge role in our studies," says Pantelis, who met Vanessa on LSBU's BSc (Hons) Architectural Technology degree. "For us, the idea of sustainable design covers many things, including minimising the damage done to the environment. For us, it comes as a moral responsibility and we kept that in mind when starting our business. It's key to what we do."

However, as the pair found, implementing their ideas in business wasn't simple and straightforward. In a difficult first year during which they struggled to secure clients, the pair had to stay strong to remain faithful to their ideals – but it seems they are now reaping the rewards for that.

"Building a business is not easy – no one's ever said it was," says Pantelis. "We've hit lots of bumps in the road on the way, and it's easy to feel intimidated by those who have already made it. You think 'what chance have we got?' but that's where we kept each other strong. In that first year, we kept getting close but never landed a client, and we inevitably began to feel negative about what we were doing. But we never gave up. We would pick each other up and stay on the rollercoaster, and we've realised that, sometimes, the biggest obstacle to success is our own internal saboteurs."

One recent project that the pair completed was for a business moving premises to a large 98m²

office. "In a big space, it's a challenge to make the most of light, but we did so by using glass walls that made the most of that natural resource," says Pantelis. "We put in two meeting rooms, a kitchen and space for the staff to work, all the time keeping it warm and light."

The clients were delighted with the results, which also mean that they don't need to turn the lights on as early as they might need to in a darker office – the daylight streams through the space, keeping it light and airy – which is healthier for the staff working there too.

The airflow in the office is also sustainable, because the design of the office allows air to circulate naturally without the need for expensive air circulation equipment – another way that E+C Associates has helped its clients keep their costs down and stick to its principles of sustainability.

More sustainable building projects are already in the pipeline, and the pair hope to play their part in tackling the environmental issues facing the planet – a subject both are passionate about. "We need to take care of Earth – it's where we live and the reason we are alive," says Pantelis. "We may only be a small cog in a massive machine, but every cog matters. After all, if we don't take care of our own home, who will?"

Find out more:
www.eandc-associates.com

More sustainable building projects are already in the pipeline, and the pair hope to play their part in tackling the environmental issues facing the planet.

Level up A Games Jam traditionally brings together games developers with the purpose of creating one or more digital games in a short space of time ranging from 48 to 72 hours.

It’s an intensely creative and highly productive event where the developers do everything from planning and designing to actually creating the game itself.

LSBU brought together Games Design students with Business Information Technology students to run a Games Jam with a twist; the basic objective was the same as a standard Games Jam, to create digital games, but the students were also required to focus on usability, accessibility and intellectual property (IP).

Having previously had IP training, the Informatics students acted as consultants. Their job was to make sure that the games were original, that there were no copyright infringements and to offer broader feedback from the non-developer perspective.

The developers then took on board the feedback to improve their games.

At the end of the two-day session, the students had to present their ideas to a panel. The judges’ criteria included a broad range of key skills such as communication and team work, in addition to the game development itself.

To be successful, the students had to tick all the boxes. The creators of the winning games, Dino Shooting and Eyes Wide Open, completed the task on time and gave an excellent presentation which demonstrated consideration for IP, playability and user-friendliness. They also collaborated well and used feedback to make improvements.

Siobhan Thomas, Game Design and Development Course Director at LSBU, explains why it was such an important event. “We covered everything that

matters in making a game a success here – it incorporates accessibility and usability, IP, and games developers and informatics students all at the same time, because that’s the nature of the world we are sending our students into. This kind of exercise makes sure they are prepared for it, whatever it is they are studying.”

Bringing students on different courses together is an unorthodox approach, one that is mirrored across the University. It helps to give students experience of working as part of a team of people they don’t know very well, teaching them the value of a diverse range of viewpoints in the development process. In the case of the Games Jam, students also learned to give and receive criticism and how to protect their ideas – all critical skills in the world of work.

The Games Jam was sponsored by the Intellectual Property Office via LSBU’s Ignite programme. This helped students and academics across all subjects understand and utilise IP through curricular and extracurricular workshops, lectures and challenges.



National Federation of Roofing Contractors

The Graduate Internship Programme at LSBU gives SMEs the chance to work with a recent graduate. The graduates benefit from putting their learning into practice and improving their CV, while the organisation benefits from the fresh insights, enthusiasm and professionalism that LSBU graduates possess in abundance.

Existing links

One organisation that has recently benefited from the programme is the National Federation of Roofing Contractors (NFRC), as Trade Association Manager Debbie Simcock explains. “We already had links with LSBU, so when the Graduate Internship Programme was mentioned, we thought it would be a good initiative to be involved with.”

Work intensively

One of the advantages of hiring an LSBU intern over a temp, Debbie feels, is the opportunity for the intern to work intensively and focus on specific projects: “We felt that the focus on specific projects was a more worthwhile route to take, which is how we came to engage with the programme,” she explains.

Extra viewpoint

To help match NFRC to suitable candidates, LSBU undertook shortlisting on behalf of the organisation, recommending three candidates for interview. “LSBU then went a step further when it came to the interviews,” says Debbie. “A member of staff sat in on the interviews with us, offering an extra viewpoint, which helped us to make a decision quickly.”

Lasting impact

The successful candidate, Miguel John, worked on several projects for NFRC, some of which have had a lasting impact on the organisation. One such task was a market research and benchmarking report for NFRC, something he was entrusted with due to the marketing specialisation he had undertaken as part of his degree. “The report collected data that we had not previously had access to,” says Debbie. “It’s going to become the basis for a more in-depth analysis, carried out by a consultancy.”

Advice for others

Debbie feels that to get the most out of an internship, as NFRC did with Miguel, it pays to be prepared. “There are a few bits of advice I would pass on to other companies which can really help you to make the internship a success for both parties – it’s a great thing to be involved with and I’m delighted that Miguel took so much away from the time he spent with us.”

Debbie’s checklist for a successful internship:

- Be prepared! The internship passes quickly, so plan what you want, and estimate how long each task will take
- Carry out a full induction, making sure that your intern knows how to use all the programmes and equipment they will need to fulfil their role
- Hold regular meetings – a weekly debrief can help both you and the intern, and reviewing progress and offering feedback help to make sure you are using their skills efficiently.

Strategic Projects

LSBU's Strategic Projects team delivers programmes that help businesses develop and grow. The 2015-16 academic year saw the conclusion of its hugely successful Investment Escalator programme and the coming of Momentum, a scheme blending university education and extensive industry insight.

In December 2015, the European Regional Development Fund funded Investment Escalator (IE) programme concluded after two years. The programme had been designed to offer tiered support to a range of London businesses from a broad mix of sectors and size. In total, we supported 688 businesses, from start-ups to those at multinational level.

Participants were invited to attend a range of workshops covering core business planning disciplines. As well as the learning opportunities on offer, IE participants were invited to a number of networking events attended by guests from other London businesses and speakers from the commercial world. Participants also benefited from the expert consultancy of academic staff from the University's School of Business.

The IE programme led to the creation of Momentum, a scheme offering high-level education and support to growing start-ups and SMEs. The scheme's two cohorts took part in a series of core workshops tackling a range of topics aimed at improving business performance. These were supported by several optional masterclasses, as well as one-to-one mentoring delivered by academic and industry experts.

The programme's aim was to fully prepare business owners and senior managers to address the challenges of sustaining and growing their businesses in an ever-changing international landscape.

We will be running a third cohort of the Momentum scheme in the coming months for the charity and social enterprise sectors.

42
jobs created through
the Investment
Escalator

£900k +
investment finance
raised for Investment
Escalator

32
Investment Escalator
businesses entered
new markets

84%
of Momentum
participants found
the support to be good
or very good

24%
of businesses believe
Momentum helped
their business survive

Digital Detox

Getting support from LSBU's students and business development services

LSBU's business support programmes and students helped long-term tenant Digital Detox develop its business practices and grow its staff.

Digital Detox is a digital agency finding new and innovative ways to present information and interact online. During its eight-year tenancy at LSBU, the agency has benefited from a range of business development opportunities at the University, in particular the Investment Escalator programme.

More than just office space

Agency founder Donovan Justice chose to base the agency's office at LSBU because of the campus's central London location and top-quality facilities. He originally moved to LSBU's Technopark in 2008 with four employees.

Having expanded to 10 employees, the agency moved into a bigger space at the Clarence Centre for Enterprise and Innovation, LSBU's award-winning hub of entrepreneurial activity, where tenants get access to a network of SMEs, events, training opportunities and venue hire.

The pathway to success with LSBU

Through its tenancy at the Clarence Centre, the agency discovered LSBU's Investment Escalator, a free programme for SMEs in London that want to grow. Funded by the European Regional Development Fund, the programme utilises LSBU's industry-leading academic expertise to provide coaching, workshops and consulting in all aspects of business planning.

"We know we're not the experts in running our small business. We're pretty good at digital design, development and delivery, but in terms of running a business we appreciated that we needed to find help elsewhere. We thought the programme would be a good opportunity to develop the foundation of the business and help us grow," said Liam Snelling, Programme Manager and COO at Digital Detox.

In the first few months of the programme, Liam attended expert workshops on Business Effectiveness, Management Accounting and Employment Law. Subsequently, other staff attended workshops on Digital Marketing and PR.

"The Investment Escalator helped us gain the skills we needed and find the right people who could help us address some of the areas where we could grow," said Liam.

Digital Detox also benefited from the programme's student consultancy strand. A third-year Accounting and Finance student assisted with setting up the agency's financial processes, and a group of BA Film Practice students produced two promotional videos for the agency's client, Vodafone.

Going from strength to strength

"Through the Investment Escalator, we have developed and increased our network of contacts who can help small companies like us, both within LSBU and the wider business community," said Liam.

Since starting on the Investment Escalator, Digital Detox has secured product sales in new markets. The agency has also safeguarded seven jobs and created 15 new roles. At LSBU's recommendation, the agency also hired MSc International Business student Maurice Schaaf to work part-time while he completed his studies.

With LSBU's help, the agency has outgrown its office space at the Clarence Centre and is now looking for larger offices. It hopes to add a further 14 new positions in 2017.

Beitak Productions

Empowered to grow by LSBU's free business support programme

LSBU's Investment Escalator programme gave Beitak Productions founder Katie Bracher the skills and confidence to develop her business.

Beitak Productions Limited is a small media production company that produces high-quality media to capture and bring together compelling stories. Having operated as a part-time sole trader for four years, Katie needed to grow her business and safeguard her job. In March 2015, she joined LSBU's Investment Escalator, a free business support programme funded by the EU.

Learning how to develop business practices

"As someone from an arts background, business practice was very daunting to me. I really didn't know where to begin. My previous clients had all been made through personal connections, which I would now call 'networking' although I didn't see it that way at the time," says Katie.

Through the programme, Katie benefited from 1-2-1 advice from LSBU academics, who gave her guidance tailored to her specific needs. She also attended a variety of expert workshops, including Digital Marketing, Sales Development, Key Account Management and Business Effectiveness.

"The range of introductory courses I have attended through the Investment Escalator supported me in gaining a good understanding of the core elements to have in place to run a small business. The more advanced courses, which look at these subjects in more detail, have consistently supported me through my journey of development," says Katie.

Continuing the journey to success with the right skills

Katie is now working full-time as Beitak's Creative Director and has developed a team of freelance creative practitioners whom she regularly employs and manages. She has redesigned her website using branding and copywriting techniques she has learned through Investment Escalator workshops and has developed her skills for pitching to new clients. She recently secured a substantial video contract with the London Borough of Barking and Dagenham.

"This programme has helped me to see a new future, one which is full of opportunity and I now continue the journey with the skills and confidence to make it a success," says Katie.

Tenant community

LSBU’s flourishing tenant community, based in the University’s Technopark and award-winning Clarence Centre for Enterprise and Innovation, provides workplace and support to over 90 SMEs and start-ups.

Our tenant business contributes to the University in so many ways: creating internships, inspiring talks and lectures, directly advancing LSBU’s curricula and judging our business competitions. The practical knowledge and experience of our tenants is highly beneficial and relevant to both students and staff.

In return, tenants benefit from regular contact with our academic environment, with access to LSBU’s world-leading expertise, enabling them to innovate, grow and boost their performance. The breadth of our tenant community is wide – at present our tenants work across eight sectors and operate in over 50 countries.

The 2015-16 academic year was another opportunity for us to continue in our commitment to support our tenants and further their business interests. Silicon Thoughts, a start-up at the cutting edge of electronic engineering, has been able to grow fast and reach new markets, thanks to the help of intern Dana Jamal. Having studied MSc Embedded Systems at LSBU, Dana offered start-up founder Dr Jevon Davies his foundation knowledge and together they injected the start-up with enthusiasm and productivity at a key stage in the business. Silicon Thoughts is now busy developing a navigation receiver for Europe’s new Galileo Satellite System.

We’ve also had an exciting tenancy development along the London Road, with Factory Fifteen taking over the large site previously occupied by the bookshop Blackwell’s. Factory Fifteen is a directing collective, and these trained architects, artists and photographers create a mixed-media approach to filmmaking.

The ample size of the space has allowed Factory Fifteen to dedicate some of it to creating an open-plan office, bringing in a range of freelancers and collaborative partners who share their vision. This has seen Factory Fifteen become a thriving home to filmmakers, animators, graphic designers and photographers alongside their own specialist staff.

£173m
combined turnover by
LSBU tenant community
in 2015-16 academic year

8
internships for LSBU
graduates

43
jobs created 2015-16

90
tenants across
3 incubation sites

2
PhD students employed

www.cameronandwilding.com

When LSBU tenants Ben Wilding and Neil Cameron started their digital agency Cameron & Wilding (C&W) in 2010, they knew they were entering a competitive marketplace where they would need to excel.

Fast forward to 2016, and the team of two has become a team of 20, with a string of awards to their name – but the company hasn’t forgotten where it came from.

“We’re still really involved with the University, and we feel that’s an important part of who we are,” says Ben. “The fact that we are tenants at LSBU means our environment is heavily focused on education, and that keeps us on our toes. We want to keep learning and growing, doing more and more with the University and exploring ways of working together.”

The company is one of a new wave of digital agencies that sees business and education as a circle, with both under an obligation to contribute to the other. It’s not just lip service; C&W put its money where its mouth is – literally. LSBU student Navdeep Dhuti spent a summer internship with the group before heading back to LSBU for his second year (although he’s continuing as a part-time developer with C&W as well).

Ben is also a board member for the Small Business Charter, part of the Chartered Association of Business Schools, which supports, encourages and accredits business schools that successfully engage with SMEs.

“We still do guest lectures at LSBU as well,” says Ben, “and we’ve started to offer more support to the business courses as well as the

digital technology degrees. It means we can test our learning, teaching and coaching skills and give back to the community. After all, we are a part of that, so we help to support the students as they head towards graduation.”

Since setting out, C&W has worked with some big clients including the BBC, the Telegraph, Oxford University Press, Viacom, New Scientist and The Barbican. As its client list has grown, so has its digital repertoire. While the business is still committed to its original aim – to become the best Drupal-based agency in the UK – it has branched out in order to take on more design work and mobile app development.

“Drupal is an excellent CMS, and our focus on it means we can deliver great projects,” says Ben. “But we’re also working with AngularJS, ReactJS and Laravel. We’re working with great brands who trust us with their digital projects – we’re hoping to keep them on board and carry on growing and expanding – feeding back into that circle of knowledge and development.”

“We want to keep learning and growing, doing more and more with the University and exploring ways of working together.”

Casting a wide net

Eclectic is probably the best word to describe the celebrated careers of Malcolm Garrett and Kasper de Graaf. The founders of Images&Co, a strategic communications consultancy based at LSBU’s Clarence Centre, have been there, done that and probably designed the T-shirt.

Working together since 1981, the duo have collaborated on a wide range of high-profile projects, from designing record sleeves for the likes of Duran Duran, Buzzcocks and Simple Minds, to managing racing legend Damon Hill during his Formula Ford 1600 career – as well as designing the liveries of his cars.

“It’s certainly been an eclectic past,” agrees Malcolm. “But I like eclectic. The world is an interesting place, and it’s good to cast a wide net. However, most of what we’ve done hasn’t been as different as it might seem at first glance. It’s all about communication, and it’s mainly been for people or entertainment-led propositions. It’s what really interests us.”

It’s that determination to concentrate on the things that interest them that drove the pair to strike out on their own as Images&Co in 2011. Having worked in big production studio environments, Malcolm and Kasper wanted to be able to focus on the consultancy side of things and strategic development.

Unlike some of their neighbours at the Clarence Centre, they did not have an existing relationship with LSBU when they moved in – but they wanted to develop one. “We work a lot with universities, and with the creative industries, so for us, moving here was all about the networking opportunities,” says Kasper. “We didn’t just want office space, we wanted to work with LSBU – and since we’ve moved into the Clarence Centre I think that’s happening.

“A good example is a project we’re currently heading up called MegaBlocks. It’s aimed at using games technology to help children learn in schools. We’re fronting a consortium of organisations, including Manchester Metropolitan University, LSBU, Amsterdam University of the Arts, Duisburg-Essen University in Germany and Stellenbosch University in South Africa, and we’re hopeful of securing funding for the project.”

The Images&Co team regularly receives extra support in the form of LSBU interns. “We’ve employed three in total now,” says Malcolm, “all from the Festival Management degree – and they’ve been really good.”

It’s a busy time for Malcolm and Kasper, our interview coming in the middle of their preparations for the fourth annual Design Manchester Festival, which is home to nearly 40 events over 12 days. “It’s one of the biggest projects we run,” says Malcolm, “but one that we love.” And as far as business plans go, that is at the heart of Images&Co: doing what they love. “The specifics of what we do might change a little from project to project, and we often collaborate with businesses who have skills that complement our own,” says Malcolm. “But whatever it is we are involved with, and whatever part of the mesh of requirements we’re fitting into, the best thing about doing what we do is how much we love it.”

Unlike some of their neighbours at the Clarence Centre, they did not have an existing relationship with LSBU when they moved in – but they wanted to develop one.

Looking forward

In the coming year, we have exciting and ambitious plans to further strengthen our research, enterprise and innovation provision beyond our campus, across London and around the globe.

We will continue to foster student success, create real-world impact and broaden opportunity.

Research

In 2017, we will launch the London Doctoral Academy which is our commitment to improve doctoral recruitment, progression and postgraduate student satisfaction at the University. It will serve as both a community and a physical service hub, creating an inspiring and supportive environment for doctoral students as they carry out research of the highest quality and impact.

This year we will continue to invest in and strengthen the research environment across LSBU, encouraging a greater number of staff to engage in research activity and continue to demonstrate the impact LSBU has in solving real-world issues.

Student enterprise

We're diversifying and broadening our offer to students.

Our Business Solutions Centre has shown that student consultancy is an excellent means of developing enterprise skills among our students, so we're increasing the number of opportunities available, as well as setting up a new consultancy within the School of Engineering.

We're building on the achievements of our student photographic agency, the South Bank Collective, establishing student-run agencies in drama and film.

Access to thriving networks is vital to the success of our student entrepreneurs and their businesses, so we're strengthening ties with London's accelerator networks.

Commercial enterprise

Our existing Research and Enterprise Institutes have already increased our levels of engagement and collaboration with industry. In 2017, we will see the launch of two new Institutes that will allow us to work with more organisations in a wider variety of industries.

The Global Challenges Institute will focus on supporting the Sustainable Development Goals, which aim to address key global issues such as poverty, equality, hunger, clean water and many more. It will do this by providing access to LSBU's expert knowledge in these areas using a multidisciplinary and collaborative approach.

Bringing together experts whose skills span the industry, the Creative and Digital Economy Institute will be a centre of excellence for new ideas, products and services, with the aim of positively impacting the digital economy.

None of this will be possible without our academic community and in the coming year we'll be looking to work with more academics in new and exciting ways.

Business support

We will increase our support for businesses across London via our portfolio of European-funded projects.

Simulation for Digital Health (SimDH) will support innovative health SMEs, start-ups or mid-size organisations to develop and deliver novel products, processes or services by giving them access to state-of-the-art facilities. This will allow them to test their novel ideas in a 'realistic' virtual/simulated environment and therefore fast-track the development and uptake of their novel products/processes and/or services. Companies will be able to gain expert (professional and academic) insights and engage

with a variety of user groups/demographics to understand the impact of their product/processes/services on the ultimate 'end-user' or recipient, to help inform future design and development.

Greentech Access to Innovation (Greentech A2i) will empower SMEs to develop and commercialise innovative low carbon technologies rapidly and at low cost and low risk to the enterprise. It will do so by offering them a unique combination of advanced equipment and testing facilities, specialised technical expertise and business skills and networking opportunities in the low carbon and tech sectors.

We will also draw on our experience and expertise in delivering growth

workshops, partnering with other business support projects across London, including Lewisham's DEK programme LSBU and Newham College's Enterprise Steps.

Incubation

We currently have three fully occupied incubation sites on campus, and to meet ever-increasing demand for office space we're in early discussions about additional sites in close proximity to our campus.

It is going to be an exciting and challenging year for Research, Enterprise and Innovation. We look forward to sharing updates on all these projects and much more with you in the coming year.



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