



THINK MODERN

Innovation, ingenuity and inclusion
from Britain's modern universities



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FOREWORD



The UK can meet the challenges it faces by harnessing the contribution of the UK's modern universities. The role of these universities is distinctive and growing, giving us

the opportunity to promote these gains for the UK through our **#ThinkModern** campaign. I am excited by the opportunity to demonstrate the achievements of colleagues, students, graduates and our partners at modern universities across the length and breadth of Britain. The credit for these achievements and future potential goes to these groups – they are the ones playing a critical role in impacting so positively on our communities and our country.

#ThinkModern is an opportunity to look forward and to look at how we can seize these opportunities to flourish as a society and prosper as an economy. Despite the uncertainties facing our country, we have tools at our disposal to ensure that challenges are met.

Modern universities are focused on addressing the crux issues that we face, such as the impact automation and artificial intelligence have on unskilled or partly skilled job roles in the decade to come. Our work in equipping people, not just with high level skills, but the underpinning knowledge and understanding that will allow them to adapt to new scenarios is central here. Our graduates will be well equipped to deal with the evolving employment market of the future and the demands that this will put upon them in shaping a rewarding career.

Modern universities are deeply connected with their place and region. We are educational powerhouses through the work we do in exchanging knowledge and innovation with industry and by skilling workers for employment, many in our critical public services. Our partnerships with schools and colleges are growing increasingly close and productive – no fewer than 13 colleges in the UK are now part of the wider MillionPlus 'family' of modern universities while many academies are now part of university groups. We take seriously this wider educational mission – students will only benefit from HE if they are equipped to progress to a higher level.

Thank you for sharing **#ThinkModern** with us. We welcome your support and look forward to partnering and connecting with you to help shape what we can achieve together in the period ahead.

A handwritten signature in black ink, appearing to read 'D A Phoenix', written in a cursive style.

Professor David Phoenix OBE
Chair, MillionPlus and Vice-Chancellor,
London South Bank University

INTRODUCTION

WHAT ARE MODERN UNIVERSITIES?

Modern universities make up over half of the UK's higher education sector, educating over a million students a year.

These universities are powerhouses for and are anchored in their communities across the length and breadth of the UK. Since the creation of modern universities in 1992, these dynamic institutions have grown into hubs of pioneering teaching and research, whilst retaining their mission of improving access to education and ensuring jobs and growth in their region and place. Modern universities transform the lives of people and ensure a highly skilled workforce for employers of many kinds.

THINK MODERN

Modern times call for modern solutions and modern universities thrive at meeting this challenge. With little fanfare, these universities have an enormous impact across the UK, and do much of the hard work in developing the key skills for the future jobs market.

Therefore, if government wants:

- To boost productivity through strongly work-related education and growing degree apprenticeships
- to address the gap in the recruitment and retention of teachers for schools
- to boost the public service workforce to deliver for the NHS and key services – from nurses, social workers and police officers to environmental managers and town planners
- to help industry innovate and improve through the application of real-world research
- to identify and drive technological advancements to meet tomorrow's challenges
- to increase the aspiration and opportunities for people from all walks of life by ensuring flexible pathways into higher education, supporting them on their learning journey

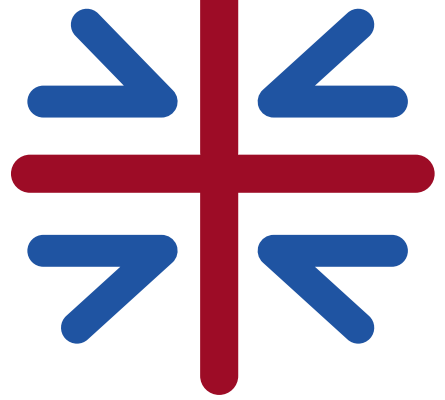
...they need to #ThinkModern.

The **#ThinkModern** campaign explores this through key facts, case studies, interviews and opinion pieces revolving around six themes – *Making Britain Work; Pathways, Partnerships and Productivity; Creative and Technological Skills for the 21st Century; Innovation and Research; Aspiration, Opportunity and Inclusion; and Entrepreneurial, Enterprising, Enriching.*

Modern universities are some of the UK's greatest assets in driving growth and social mobility, addressing the challenges we face in society. Across the country, it's time to embrace what they offer and unlock the potential of their students.



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Making Britain work

Modern universities are directly responsible for training thousands of the backbone public service staff that keep Britain working. From high-profile roles such as teachers, nurses, social workers and police officers to the less well acknowledged town planners, architects or environmental health officers, year after year modern universities create the highly skilled workforce that keeps the economy growing and society thriving.



PUBLIC SECTOR APPRENTICESHIP – CHALLENGE AND OPPORTUNITY



Dr Darryll Bravenboer, Middlesex University

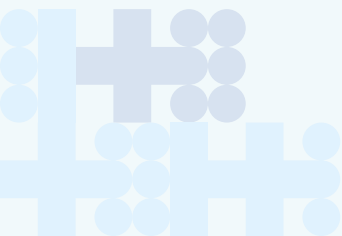
Apprenticeships, and degree apprenticeships in particular, represent a transformational opportunity for public-sector employers.

Despite all the challenges facing the implementation of apprenticeships, they provide the opportunity for the worlds of work and learning to align. The apprenticeship levy drives higher education providers to recognise that work-integrated learning and meeting the needs of employers, by working collaboratively with them to design and develop provision that meets their needs, is considered a core business activity for universities.

While the requirement for 2.3% of their staff to be apprentices may be seen as burdensome and unachievable by some public sector employers, along with the needs to spend their levy, it is driving the procurement of very large numbers of apprenticeship opportunities that are of strategic significance to employers, providers and the country. It also drives employers to realise that learning must be centre stage if they are going to develop the professional workforce they need to enhance productivity and service

effectiveness. Similarly, apprenticeship delivery requires that employers take responsibility for supporting learning in the workplace rather than expecting learning only to be the concern of their university partners. For example, in planning for the delivery of the Police Constable degree apprenticeship, many police services have introduced Tutor Constable and Coach roles specifically to support apprentices and other professional learners. This is further hardwired by the required practice of tripartite reviews for all apprenticeships that must include employers, apprentices and providers regularly evaluating the learning progress of individual apprentices towards professional competence.

Middlesex University, along with other modern universities, has a long track record of working with public and commercial sector employers to meet their workforce development needs. For many years, we have established excellent collaborative relationships with employers and professional bodies (particularly in London) to deliver highly trained people to NHS Trusts, schools, local authorities and police services. Similarly, we have worked closely with employers to develop and deliver employer-sponsored, work-integrated and apprenticeship programmes in the construction, management, finance, sales, retail and aviation sectors. Apprenticeships are a way for higher education to contribute to the government's industrial strategy objectives around boosting productivity and social mobility.



Developing degree apprenticeship routes in more professions broadens the range of opportunities available to young people.

For 25 years, Middlesex University has joined forces with professionals and industry leaders to help them explore new work-integrated approaches to improve their skills and knowledge, resulting in transformative personal and organisational benefits. These have included the development of a broad range of higher education qualifications and degrees (with degree apprenticeships among the most recent) that enable individuals to gain professional recognition and enhance their careers. The approach involves recognising the workplace as a valid site for higher-level learning and the source of innovation and enhancement of professional practice. The expertise and long-standing experience demonstrated at Middlesex and the recognised high quality of programmes delivered, has made the university a leader in professional education in the UK and internationally. However, this kind of work-integrated employer-sponsored learning has largely been considered niche by the higher education sector until the advent of degree apprenticeships,

Middlesex has recently launched a new B2B sales professional degree apprenticeship with a first cohort of students from Royal Mail and BT. The university was already working closely with Consalia, a private training organisation who specialise in sales and we have worked together to develop a master's programme in sales leadership. This progressed to looking at how provision could be designed to meet increased interest from employers in apprenticeships in response to the apprenticeship levy. The result was the B2B sales professional degree apprenticeship. Engaging with professional sales was an opportunity to help professionalise

a job that might not perhaps have been considered in this way previously and to provide a degree apprenticeship route to this newly professionalised role.

Apprenticeships are also helping to provide additional routes for a wider range of people to access professional careers in the public sector. For example, the introduction of the Nursing Associate apprenticeship has already started to attract people from more diverse backgrounds to the nursing profession. The opportunity to use this route as a stepping stone towards becoming a Registered Nurse will mean that more people from non-professional backgrounds gain professional status than would otherwise have been the case. Similarly, the introduction of the Police Constable degree apprenticeship is being positioned by police services across the country as a key means to make sure that their workforces better reflect the communities served. The social mobility potential of apprenticeships is real (despite some very early negative reports) and I predict that the large numbers of public sector apprentices that will be in place a year from now will provide a rich vein of evidence that degree apprenticeships have a major part in delivering this.

CASE STUDIES

University of Bedfordshire

ASHLEY LOASBY, BA IN EDUCATION STUDIES



Coming from a family of teachers, Ashley had a lifelong ambition to join the profession.

"My grandmother and aunt were both teachers so it seemed the natural thing for me to pursue a teaching career," said Ashley, 28, from Kettering, Northamptonshire.

She started her journey to becoming a teacher at the university's Bedford campus, where she studied a BA in Education Studies.

"I loved my course. It was really helpful because we were able to do all the groundwork on the legislation around teaching and gain a wider understanding of the profession.

"Throughout my studies I was able to gain a clear understanding of how education has changed over the years and I was able to choose modules that I was passionate about, like Policy and Practice."

Among others, Ashley chose to focus on a module in Special Educational Needs (SEN) & Disability, a subject close to her heart.

"I wanted to focus on SEN because I wanted to make sure I had a good understanding of inclusion so I could ensure every child I worked with was achieving at all times."

After completing her degree Ashley went on to complete the Postgraduate Certificate in Education.

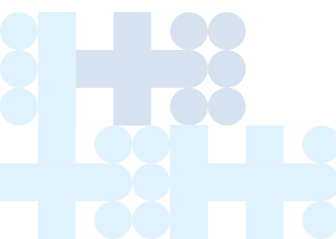
Ashley worked in several schools after graduating as a supply teacher so she could get experience of working in a range of school set-ups and different age groups.

She was invited to supply at Kettering Buccleuch Academy, and was eventually offered full-time employment teaching Year 6 children – she has worked there for five years.

"I love watching my students grow into independent learners, knowing that I've supported their learning journey and helped them on their path through life."

Ashley's dedication to her work saw her named Teacher of the Year at the United Learning's national Best in Everyone Primary School Awards at the House of Lords in 2017.

In 2017-18, modern universities accounted for **61%** of all initial teacher training students in the university sector, and **72%** of those were studying the undergraduate pathway.



Canterbury Christ Church University CONFEDERATION FOR THE EDUCATION OF SOUTH EAST TEACHERS (CESET)



Schools throughout the UK are struggling with an ongoing shortage of teachers – the number of applications to teaching is declining both nationally and in the region, including in areas which were previously guaranteed to recruit well, such as primary education, English and history.

However, innovation funding has been secured from the Department of Education for a new initiative led by Canterbury Christ Church University, in collaboration with five other Initial Teacher Training providers, which aims to promote teaching as a career and boost regional recruitment into the profession.

Known as the Confederation for the Education of South East Teachers (CESET), the project will work towards increased levels of recruitment and retention of teachers in the schools that face the greatest challenges with social inequality and mobility.

CESET will initially focus on designing and running new publicity and advertising campaigns for teaching in the region. The project's subsequent aim is to collaborate over improved support for newly and recently qualified teachers, including a strong focus on developing teachers' confidence in teaching and supporting children with special educational needs, as well as developing their subject knowledge for teaching and the quality of mentor support that they can expect to receive in their early careers.

William Stow, Assistant Dean of the Faculty of Education (interim) and project lead, said:

"This new project gives us a unique opportunity to take a long-term and collaborative approach to tackling the huge challenge that we face and invites us to do more of what we most value, which is supporting the schools in our communities that serve those with the greatest need."



CASE STUDIES

University of the Highlands and Islands

INNOVATIVE MIDWIFERY POSTGRADUATE DIPLOMA IN PARTNERSHIP WITH NHS HIGHLAND, NHS WESTERN ISLES AND NHS ORKNEY



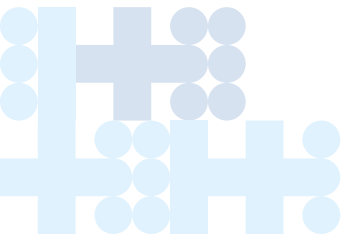
The University of the Highlands and Islands has welcomed its first cohort of students onto an innovative new midwifery course. Nineteen students gathered at the Centre for Health Science in Inverness to begin the shortened midwifery programme.

The postgraduate diploma has been developed in partnership with NHS Highland, NHS Western Isles and NHS Orkney. It will enable registered nurses to become fully qualified midwives in 20 months, helping to meet the needs of communities across the north of Scotland.

The course will have an emphasis on providing care in a remote and rural context. Students will learn through a combination of face-to-face classes at the Centre for Health Science, online study via the university's virtual learning environment and placements with NHS Highland, NHS Western Isles, NHS Orkney and NHS Grampian in urban, remote and rural island-practice areas.

The Scottish Government is providing funding to cover the students' tuition fees, offering bursaries and, together with NHS boards, funding the salary costs of existing employees undertaking the course.

Professor Crichton Lang, University of the Highlands and Islands Deputy Principal and Head of its School of Health, Social Care and Life Sciences, said: "We are delighted that all of the development work to establish this programme has now come to fruition in this first cohort of trainee midwives beginning their studies. We wish them every success."



London South Bank University

LARGEST PROVIDER OF PAEDIATRIC NURSE TRAINING IN THE UK



London South Bank University's (LSBU) School of Health and Social Care comprises five leading-edge subject areas: Adult Nursing and Midwifery, Allied Health Sciences, Children's Nursing, Mental Health and Learning Disabilities and Primary and Social Care.

Students are supported by over 450 teaching, research and support staff and benefit from the university's partnerships with major organisations and institutions across London and the South East. In total, we work with over 70 NHS Trusts, providing students with the opportunities to enjoy first-class work placements.

LSBU's Children's Nursing team is one of the largest in the UK and LSBU is the UK's largest provider of paediatric nurse training. According to the Royal College of Paediatrics and Child Health, there is a serious shortfall in the paediatric

workforce, as numbers have failed to keep pace with patient numbers.

Treating children provides unique challenges – they have very specific health needs and pose potential communication barriers that are not an issue with adult patients. LSBU's trainee nurses benefit from cutting-edge facilities such as two Children's Labs, each containing beds, cots, a resuscitator and a range of baby and child mannequins providing sounds and vital signs. They also benefit from placements at world-renowned institutions including Great Ormond Street Hospital.



CASE STUDIES

Edinburgh Napier University

PRACTICE AND POETRY



Maggie Hampson, 22, produced a selection of poignant, gritty and moving poems which reflected her feelings as she worked with cancer patients and people suffering from dementia.

Now, after graduating from Edinburgh Napier with a Bachelor of Nursing (Adult) degree, she has been named this year's winner of the university's Simon Pullin Award.

In her submission for the prize, Maggie wrote about the rapport she built with a lady suffering from Alzheimer's Disease.

Maggie, from Clogheen, County Tipperary, Ireland, but now living in Blackburn, West Lothian, made 'reminder cards' for the patient to explain where she was, spelled out what each of her tablets was for and walked the corridors with her, their relationship becoming so trusting that the patient often refused medication from anyone else.

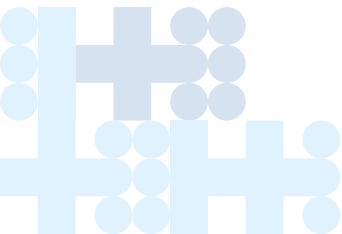
Maggie said: "Each day I was reminded that the care I delivered was appreciated, whether that was a patient grabbing my hand, giving me a hug or crying the day I said my goodbyes."

She also included in her submission a selection of powerful self-penned poems, discussing in graphic detail her experiences as a carer and reflecting on the role of a nurse.

Maggie wrote about caring for a young man with a brain tumour and sepsis, and about the close personal support which a nurse gives a patient as part of their everyday working routine.

Maggie was thrilled to be named the winner. She said: "This must make me the happiest newly qualified nurse ever; I'm over the moon. I would like to dedicate the award to every member of staff at Edinburgh Napier University who has supported me throughout a challenging but wonderful three years."

Following graduation, Maggie is now taking up her first nursing post at St John's Hospital in Livingston.



THINK MODERN



Pathways, partnerships
and productivity

Vocational, technical and professional education has been the beating heart of modern universities from the very start. Working in partnership with employers, often in their local regions, they have created high-quality, work-focused courses that ensure graduates are fully equipped with the skills and knowledge they need to be job-ready on day one. These modern universities are driving forward the degree apprenticeship agenda that will create new opportunities for young people.



GUEST BLOG:

ARMED FORCES LEARNING, FROM A DISTANCE



This blog was kindly written by a former MA in Intelligence and International Relations student at Staffordshire University. Name withheld.

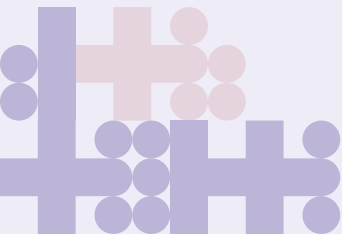
I initially found out about Staffordshire University's close work with armed forces students when attending a military education course; I then spoke to numerous colleagues as several had taken up the opportunities offered by the university. I gained advice on how to apply for the course and when I contacted the university, they were extremely helpful. In addition, due to their armed forces links, they were able to give excellent advice on how to organise and gain access to Enhanced Learning Credits. I only spent about 30 minutes in total applying, gaining access to ELCs and then being subsequently loaded onto the course beginning in September 2016. It was a very slick and easy process.

The semesters were sensible and manageable, despite being in a busy post at that time. The first semester was definitely the most challenging for me as it was the subject I was least familiar with. It was also my first proper experience of distance learning at a post-graduate level. That said, it was also one of the most interesting semesters. I was learning something truly new but highly relevant and useful in understanding the legal and historical context and current international factors that have seen armed forces personnel deployed on operations over the last one hundred years or so.

The university's staff were excellent, I always felt valued and supported. I received genuinely useful, practical, frank advice and feedback. As well as the study literature being high quality there was also easy access to all the university's library resources and online text books. In addition, there was a plethora of advice available to support essay writing. The second two semesters were more straightforward for me personally as they were highly relevant to my job role. I thoroughly enjoyed my dissertation and the plan I worked through with my supervisor ensured that I had a pragmatic and achievable programme of work. The relationship I had with my supervisor ensured, again, useful productive feedback and excellent support. This enabled me to achieve the grade I was aspiring to.

Despite never setting foot onto the university campus, I still sincerely feel that I was as valued and well supported as any full-time student physically attending lectures at the university. I would recommend this course to others without hesitation. It is challenging, interesting and extremely relevant to those in the armed forces where a practical knowledge of strategic current and historical international issues is relevant. I believe the content and strategic focus of this course means it has a utility that reaches across the military and not just to those with links to intelligence.

Overall, my experience with Staffordshire University was excellent. I am a better armed forces professional for completing it.



CASE STUDIES

University of Bedfordshire

UNIVERSITY TO HELP LOCAL ARTISTS ESTABLISH A LASTING LEGACY



The University of Bedfordshire has opened applications for its TestBeds programme, an exciting new professional development programme for local artists and creative practitioners.

The university was awarded £375,000 by Arts Council England to support artists and cultural organisations develop the skills to thrive economically, creatively and socially within Luton. It is part of £1.5m investment by Arts Council England to enhance the arts and cultural infrastructure of the town.

TestBeds is divided into three strands of activity: Arts Enterprise Zone – a public programme of events and seminars; Artist Accelerator – a 12-month incubator programme for local artists just starting out on their careers and; Catalyst Co-Lab – a 12-month collaborative research and development programme aimed at mid-career artists.

As well as free talks, development opportunities, and tailored funding application coaching, the Artist Accelerator and Catalyst Co-Lab programmes also offer £5,000 and £10,000 stipends per applicant respectively.

Professor Helen Bailey, who leads the initiative for the university, said: “TestBeds has been developed with funding through Arts Council England’s Luton Investment Programme.

“We wanted to find a way to support artists and arts organisations develop the skills to create a thriving business. The Artist Accelerator will do this by providing local artists with access to resources, space, knowledge and skills development to establish a lasting legacy of art and culture in Luton, whilst the Catalyst Co-lab will place artists within the university as visiting artists, leading to exciting cross-disciplinary research projects.”

In 2017-18 modern universities received **£75.5 million** in income from regeneration and development programmes.



CASE STUDIES

Canterbury Christ Church University

GROWING THE REGIONAL ECONOMY: A NEW VISION FOR ENGINEERING AND TECHNOLOGY

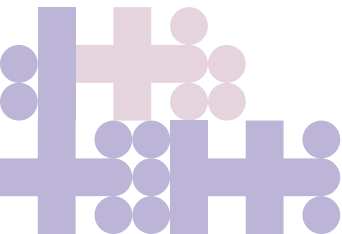


Canterbury Christ Church University is working in partnership with local businesses to develop and deliver innovative degree-level, professionally accredited qualifications, provided as major new full-time, part-time and apprenticeship-based courses, designed collaboratively to fulfil the needs of the engineering and technology sectors.

These new professional qualifications will be delivered and supported through the new Kent and Medway Engineering, Design, Growth and Enterprise (EDGE) Hub, funded through £6.12m from the South East Local Enterprise Partnership and a further £7m from the former Higher Education Funding Council for England's Catalyst Fund.

The EDGE Hub will be established by 2020 to deliver work-ready graduates for local SMEs, alongside new innovation services, technologies and facilities, and will be a multimillion-pound facility in Canterbury with distributed centres of excellence across Kent and Medway. This hub-and-spoke model will enable the centres of excellence to be easily accessible by regional SMEs and will become instrumental in improving regional access to Engineering and Technology graduates while retaining them in Kent and Medway to ensure future economic success.

Nationally, there is an annual shortage of over 20,000 engineers and women make up only 11% of the engineering workforce. To challenge the gender and national skills gap, the university aims to attract 35% women and 40% of new learners from less advantaged communities to its courses, strongly promoting equality and diversity in education and industry. Christ Church is also removing barriers to success by taking away the need for A level physics – designing the engineering knowledge required as students learn.



London South Bank University

THE PASSMORE CENTRE FOR PROFESSIONAL AND TECHNICAL EDUCATION



London South Bank University's (LSBU) mission is to provide professional and technical opportunities to all those who seek them.

LSBU has whole-heartedly embraced the apprenticeship agenda and now has over 700 students enrolled on higher and degree apprenticeship programmes including in areas where there are known skills gaps such as Chartered Surveying and Nursing. Not only do apprenticeships provide a significant opportunity to address the UK's skills gaps – due to their close alignment to employer needs – they also have great potential to improve the country's social mobility, by providing tuition-free education to those who enrol on them.

One example of this is the Level 6 Architecture Apprenticeship (equivalent to RIBA Part I) which LSBU is the first university in the UK to offer. This will provide an alternative cost-effective route to architecture registration, while diversifying the profession and strengthening ties between the architectural industry and academia.

Since November 2018, the apprenticeship work is delivered from the Passmore Centre – LSBU's new business and networking hub for professional and technical education. Supported by a £5m grant from the London Borough of Southwark, the Passmore Centre has a specific focus on employer engagement, providing a 'one-stop-shop' to help employers access information about apprenticeships and potential apprentices.

The centre also offers space for employer meetings, community engagement and teaching facilities.

The university estimates that 2,000 students will be undertaking apprenticeships at LSBU every year by 2020. Around 600 of these are expected to achieve higher degree apprenticeship qualifications or the equivalent.



CASE STUDIES

Middlesex University

NEW PARTNERSHIPS AND PATHWAYS TO HIGHER-LEVEL LEARNING



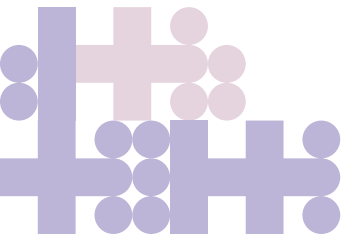
Middlesex University has an extensive portfolio of work-relevant and professionally accredited courses with programmes which encompass and integrate academic, technical and vocational knowledge and skills.

Through this distinct offer the university is boosting productivity and creating the skills needed for the work place in the fourth industrial revolution. The university works closely with schools, colleges and employers to create progression pathways to higher-level learning and support learners to navigate the system and fulfil their potential. Developing apprenticeship routes to include the public sector and new professions, the university is broadening the range of opportunities available to young people.

Higher education is part of a broader tertiary skills system and Middlesex has close relationships with further education (FE) colleges including a strategic partnership with London's Capital City College Group (CCCG) of FE colleges (City and Islington College, Westminster Kingsway College, and the College of Haringey, Enfield and North East London), reaching over 40,000 learners with growing collaborative provision of courses and apprenticeships. Helping to clarify progression pathways through FE and HE should encourage more learners from a broader range of backgrounds to progress to higher level skills and qualifications.

The aim is to create progression agreements to allow learners to progress seamlessly through the levels. In public services for example, CCCG offer a level 4 Police Community Support Officer apprenticeship that can lead on to a level 6 Police Constable apprenticeship at Middlesex.

The university sees apprenticeships as an important additional pathway to higher-level learning, providing opportunities for learners to upskill while in the workplace. With programmes including Chartered Management, Construction, Teaching, Nursing, Policing, Social Work and Digital Technology, Middlesex is focusing on degree apprenticeships to boost productivity and meet the economy's digital and leadership skills needs. Through a new Business 2 Business Sales Professional degree apprenticeship working with Royal Mail and BT, Middlesex is also collaborating with high profile employers.



University of Wolverhampton

ACADEMY OPENS DOORS TO A NEW GENERATION OF ENGINEERS



The University of Wolverhampton has taken its partnership with Morgan Motor Company to the next level with the opening of a new academy for budding engineers.

The Morgan Academy, based at the car company's factory in Malvern, has opened its doors to Automotive Engineering degree students studying at the university's Telford Innovation Campus.

The collaboration between the university and the family owned independent, innovative British motor manufacturer provides engineering students with a range of activities and opportunities including educational programmes, research and development and motor racing.

University of Wolverhampton Race Team students work alongside traditional craftsmen on a range of Morgan vehicles as well as getting involved in the annual AR Motorsport Morgan Challenge, a one-make race series for racing Morgans sponsored by AR Motorsport, the performance arm of the Morgan Motor Company.

The Morgan Academy sees Motorsport students spending one day a week at the factory, working alongside skilled Morgan employees, sharing their skills and learning and applying theory and practice in a business environment.

Student James Higginbotham said: "Being part of university of Wolverhampton Racing and working alongside Morgan has provided me with valuable skills and given me a real insight into teamwork and the

engineering expertise needed in the industry – setting us up perfectly for future employment."

Steve Morris, Managing Director at Morgan Motor Company, said: "It's been an extremely fruitful partnership working with university students who are set to become the engineers of the future.

"Working with the university we are informing our future development. It's absolutely vital that, as a small company building sports cars in this day and age, we blend old skills with new ideas and technology. Having access to state-of-the-art learning and research in this unique collaboration certainly gives us a competitive edge."



THINK MODERN



Creative and technological skills
for the 21st century

Modern universities have pioneered new degrees to ensure that the new businesses of the 21st century can benefit from a high-calibre workforce, skilled in **Science, Technology, Engineering, the Arts and Maths**. Innovative courses once seen as huge risks are now well-established in the higher education sector, combining new and traditional skills across diverse, once separate disciplines. This age of **STEAM** is digital.



CASE STUDIES

Canterbury Christ Church University

GROWING THE CREATIVE ECONOMY IN KENT AND THE SOUTH EAST



The creative industries in Kent and Medway are projected to grow by up to 16%, compared with 6% for the economy as a whole, creating an additional 3,500 jobs by 2022.

Responding to regional demands and opportunities, Canterbury Christ Church University is expanding its range of courses and facilities to support economic and skills growth.

Christ Church is a major supporter of arts and culture and contributes significantly to the South East economy. Proud to be working closely with a range of local and national cultural organisations, the university offers an artistically vibrant, academically inspiring and socially engaging arts and culture programme. This includes its long-term collaboration with Canterbury Festival, as Partner and Principal Sponsor, and Christ Church being the organisers of the award-winning South East animation festival Anifest.

As part of its £150m campus transformation in the World Heritage City of Canterbury, the university is opening a new Creative Arts building in 2019.

This major new facility will house a wide range of existing and new courses for the creative economy, helping to inspire the next generation of artistic and creative professionals.

Dean of the Faculty of Arts and Humanities, Professor Gillian Youngs, said: "Creative industries are growing at more than twice the average rate across the UK economy. I am sure there are new forms of value and identity we can bring to our region and beyond to increase its profile and success. Together with colleagues and students, I feel privileged to be part of those possibilities."

It is estimated that the creative industries will be worth **£128.4 billion** by 2025.



CASE STUDIES

Leeds Trinity University

TURNING COURSE DESIGN ON ITS HEAD



To address the digital skills gap, Leeds Trinity University (LTU) has worked with local businesses to co-create a new Computer Science degree which went from inception to launch in just 15 months.

LTU works with a network of more than 3,000 businesses, includes two compulsory, credit-bearing placements in all its degrees and uses Employer Advisory Boards to ensure all degree programmes seek and react to industry feedback on curriculum content and skills.

In June 2017, LTU hosted a meeting with local employers to consider solutions to the digital skills shortage, resulting in an institutional decision to create a new Computer Science degree.

The context for development of this was New Skills for the New Economy: The Leeds Talent and Skills Plan 2017-2023 which highlights the city's significant economic growth and outlines the risks associated with economic success – the possibility of demand outstripping supply in the city and falling behind other areas of the UK in terms of productivity and inadequate skill levels.

LTU saw an opportunity to use its work with employers to bridge the gap between these two contrasting aspects of Leeds and particularly related to the desire to create a “more inclusive economy in a compassionate city”, a vision which resonates with the mission, vision and values of LTU.

Rather than using a traditional and internal-facing course design process, utilising employer feedback at the end of the process, LTU turned degree development on its head with a four-stage process:

1. It organised a course design workshop with key local employers, including Sky, Sky Betting and Gaming, BJSS and Infinity Works. Employers were given a basic degree framework to populate with skills required and suggestions for modules
2. Academics, placement staff and a project consultant worked through the resulting material to identify three content pathways through the degree and came up with a programme structure which went back to the employer group for comment
3. A second, assessment design workshop was run to consider the best ways of assessing students in each module to ensure the work they would undertake was relevant to industry practice
4. The staff team were then able to develop module outcomes and more detailed content outlines

A guiding principle throughout the process was the need to produce graduates who understand the creative, collaborative and team-driven nature of the digital and technology sector in the Leeds City Region.



London South Bank University

FOOTPRINT SCENERY PARTNERSHIP



London South Bank University (LSBU) is one of the leading universities for Knowledge Transfer Partnerships (KTP) in the South East.

KTPs, with government support, provide businesses with access to the expert knowledge held by academics within a university, allowing a firm's ideas to be transformed into real business opportunities.

One such KTP, funded by InnovateUk and the Arts and Humanities Research Council is currently taking place between LSBU's School of Arts and Creative Industry and Footprint Scenery, a company that develops props and scenery (including design and build services) for brands, retail, theatre, film, television and major events and exhibitions. Past clients include the London 2012 Olympic Games, the National Theatre, the BBC, the V&A Museum and the Southbank Centre.

The KTP has seen LSBU academics working with Footprint Scenery to develop an immersive design facility to prototype interactive spaces and immersive experiences through a process of co-design and co-creation. The project has also assisted with the development of Footprint Digital UK – an immersive design bureau service delivering immersive live experiences to the event, retail and branding sectors. The process has involved students on both the BA Theatre Technologies and Drama programmes in the R&D and user testing-process. As research-led teaching, this has helped the students develop a range of digital and transferable skills.



64% of software engineering undergraduates and **87%** of computer generated and visual effects students were at modern universities in 2017-18.



CASE STUDIES

Solent University

ALUMNI SPOTLIGHT: DR JOHN FLACKETT

SOLENT
UNIVERSITY
SOUTHAMPTON

Solent alumnus and former senior lecturer Dr John Flackett visited the university recently to give a guest lecture covering artificial intelligence (AI) and future jobs.

John first graduated from Solent (then the Southampton Institute) with a first in BSc (Hons) Computer Studies in 1996, before going on to study PGCert Research in 1997 and then a PhD in Artificial Intelligence in 2005.

During his PhD John started teaching at Solent University as a senior lecturer, delivering Artificial Intelligence (MSc and BSc) and BSc Software Engineering for 10 years. He migrated to Australia, where he founded his first web company providing consultancy to industry. He was invited to join one of his clients and worked as a software manager for an independent corrosion company, developing risk software used by some of the biggest oil and gas companies across the world.

In 2010 John co-founded his current company koolth, which specialises in smart web integrations, and in 2017 co-founded AiLab, helping business, government and the public navigate the complex world of artificial intelligence.

John is also an international speaker, giving talks and workshops across the globe on AI, future jobs and emerging tech to industry, schools/education, community and government. In his spare time, he works as a mentor for the tech community.

John said that achieving his PhD was a major career highlight, and really helped in starting AiLab. He and his colleagues worked hard to build recognition and a brand in koolth, which allowed them to create another company that is respected and trusted. He also gets to share his love of AI with the companies and people he works with.



University of Wolverhampton

NEW SECURITY CENTRE MARCHES AHEAD IN FIGHT AGAINST CYBER CRIME



A joint venture between the University of Wolverhampton and Herefordshire Council has secured £9m in funding to develop a new centre for Cyber Security in Hereford.

The University of Wolverhampton has approved £1.5m to contribute to the centre as well as successfully securing grant funding of £4m from the Marches LEP Local Growth Fund and £1.16m of European Regional Development Fund (ERDF). Herefordshire Council has approved funding of £3.5m to contribute to the Centre for Cyber Security which will be located on Skylon Park in the Hereford Enterprise Zone.

The new Centre will offer high quality research facilities through the university's Cyber Security Research Institute as well as providing office space for cyber businesses and advanced training facilities designed specifically to tackle threats in cyberspace.

Cybercrime currently costs the UK between £18-£27bn a year. Sixty-five per cent of all large UK companies have reported breaches and threats to cyber security are persistent and constantly evolving.

Professor Ian Oakes, Deputy Vice-Chancellor at the University of Wolverhampton, said: "The new centre will organise, facilitate and support the development of cyber security on a global scale whilst at the

same time present us with opportunities to develop high-quality academic, vocational educational and training programmes to address the digital skills shortage being experienced nationally."

Councillor David Harlow, Herefordshire Council Cabinet Member for Economy and Communications, said: "The cyber security sector is an important and fast-growing part of the UK economy, and Herefordshire is proud to be home to the new Centre for Cyber Security and a growing cluster of cyber security businesses."

Building work on the new Cyber Security Centre is expected to be completed by spring 2020.



THINK MODERN



Innovation and research

Modern universities are crucial regional anchors. Researchers and academics at these universities are vital in ensuring that businesses – especially the small and medium enterprises that are the lifeblood of the UK’s towns, communities, regions and nations – can benefit from expertise in research and innovation. Modern universities are essential in bringing these experts closer to business, supporting them in providing solutions to major challenges and driving economic growth in all parts of the country.





CASE STUDIES

University of Bedfordshire

DRONES, MACHINE LEARNING, SWARM INTELLIGENCE



University of
Bedfordshire

Where current drones have, at most, about 30 minutes of flight time, Andrews UK is looking into drones with flight time of at least 12 hours.

Andrews UK approached the University of Bedfordshire to explore the commercial market and technical feasibility of ultra-long flight time drones.

The university explored the benefits using a swarm of drones that would use enhanced autonomy and a cloud-based form of artificial intelligence to assist with tasks from search and rescue missions to intelligence gathering. A swarm of drones also overcomes the limitations of current battery technology, one drone can seamlessly take the place of another as and when the batteries run low.

After extensively reviewing existing literature on swarm intelligence, machine learning, and cloud systems, the university delivered a plan detailing system concepts, key components, interfaces, and cloud management strategies that would need to be considered when putting the idea in to practice.

Andrews UK is now working closer with the university, not only funding a PhD student as part of the technical feasibility, but also contracting space from the university to accommodate their rapidly growing business.



CASE STUDIES

Canterbury Christ Church University

IMPROVING HEALTH AND WELLBEING THROUGH ROBOTIC TECHNOLOGY



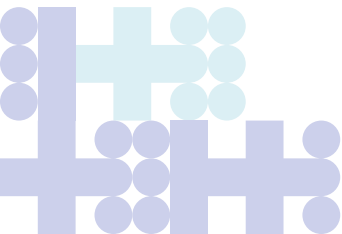
Canterbury Christ Church University is proud to be a partner for the ADAPT project (Assistive Devices for empowering disabled People through robotic Technologies).

The project, which began in 2017 and will run until the end of 2020, aims to develop technological innovations for the welfare, quality of life, well-being, home care and independent living of people with severe disabilities. It also provides training for healthcare professionals in the use of Assistive Technology (AT) solutions.

ADAPT is part of the Interreg VA France (Channel) England Programme and is led by IRSEEM – Embedded Electronic Systems Research Institute. There are sixteen institutional partners collaborating on the project including universities in France and the UK.

The university is the lead partner for the training of health care professionals in assistive technologies. Christ Church researchers will design and conduct a survey of health professionals' current knowledge and attitudes towards assistive technologies and develop training materials and sessions to enable them to engage more effectively with the AT applications developed through the project.

The team will also contribute to several other work packages within the project, including robotics and virtual reality applications for electronic powered wheelchairs. They will be providing medical specialist expertise in orthopaedics and postural care for disabled users and bringing expertise in assessing the role of assistive technologies in developing more effective children's occupational therapy services. The university's strong partnerships with healthcare providers, service users and key stakeholders in the area will also be drawn upon to explore the impact of technology transfer.





London South Bank University

LONDON SOUTH BANK UNIVERSITY AND THE WELDING INSTITUTE



**London
South Bank**
University

In 2015, the university established the London South Bank Innovation Centre (LSBIC) in collaboration with The Welding Institute (TWI), a world-leading not-for-profit research and technology organisation with expertise in joining and fabrication, material science and structural integrity.

The success by LSBIC in its research and development of automation and robotics for non-destructive testing (NDT) led to the establishment of a second centre the following year. The Advanced Resins and Coatings Technologies Innovation Centre focuses on coatings, nanomaterials and hybrid resins. Since the establishment of the two research centres, LSBU has won over £2.5m of funding through the European Commission's Horizon 2020 programme and Innovate UK. It has also won £3.8m worth of research and development projects.

LSBIC's research focus is aligned with the research activities at LSBU to ensure that the research activity of one complements the other, creating new synergies. At the same time, TWI and its members also benefit from the creation of new products and processes.

One such project developed by LSBIC is RiserSure™, a new radiographic tool for assessing the condition of flexible riser pipes, which are widely used in offshore oil and gas production. Riser failure is both highly costly and very damaging to the environment and following the Gulf of Mexico disaster in 2010, new safety legislation has created an impetus to

develop new monitoring systems for risers. RiserSure™ has developed a new subsea digital radiography detector, able to assess the condition of flexible riser pipes to depths of up to 100 meters. This will reduce environmental impact and improve safety of offshore production as well as increase the profitability of operators by reducing leaks and downtime, saving the industry €320m over five years.

In terms of impact, **61%** of research carried out at modern universities was judged to be world-leading or internationally excellent in REF2014.



CASE STUDIES

Middlesex University

INTERNATIONAL COLLABORATION, LIFE-SAVING RESEARCH



Middlesex University has a deep commitment to innovative research that furthers social justice, changes lives for the better and has a positive impact on society.

A team led by a world expert based at Middlesex, Dr Irena Papadopoulou, is playing a critical role in CARESSES, a major international research project to deliver culturally competent robots, that can help care for older people. The UK partners for this global research project are Middlesex and the University of Bedfordshire.

Meanwhile, the university's Biophysics/ Bioengineering team is leading research that has the potential to save millions of premature babies' lives. The CRADL research project is developing technology that will mean that for the first time, doctors can accurately monitor babies'

lung function without the need for sedation. Neonatologists will be able to view real time dynamic images of babies' lungs every second – an important tool that could prevent many infant deaths in the future.

The same team has received funding to research nanoparticle imaging for cancer therapy. Their studies could transform cancer treatment and other conditions. The team is developing a new imaging method using gold nanoparticles as 'bullets' that can go through the body to track and destroy cancer.





Edinburgh Napier University

NEW CHAPTER OPENS FOR ZONEFOX AFTER US ACQUISITION

Edinburgh Napier
UNIVERSITY



A company which grew out of Edinburgh Napier PhD research has been taken over by a California-based cybersecurity giant. Edinburgh-based ZoneFox, which specialises in cloud-based insider threat detection, has become part of the Fortinet empire.

ZoneFox, which spun out from Edinburgh Napier in 2009, grew out of the PhD work of digital forensics student Jamie Graves and his research supervisor Professor Bill Buchanan, from the university's School of Computing.

The two were unhappy with the tools available for investigating data breaches, and teamed up to launch an information security software company with the support of Scottish Enterprise.

The ZoneFox product protects business assets from malicious and accidental threats from within a company by monitoring employee behaviour and data flow for abnormal activity.

ZoneFox is used by clients to protect intellectual property by monitoring users in real time for breaches of company policy as well as providing forensic tracking for auditing and investigation.

Dr Graves, founder and chief executive of ZoneFox, said he was delighted to join the Fortinet team.

He added: "ZoneFox will always have its roots in Scotland and will remain part of the local Scottish Security community to both access and develop talent."

Professor Bill Buchanan said: "As a spinout from our School of Computing, Jamie has managed to push forward and has developed a world-leading security product.

"Their success also highlights the strength of the innovation infrastructure within Scotland, and especially in Edinburgh. The ready supply of experts in key areas of cyber security and in business development has showcased the city as being a leader in supporting the development of technology-driven businesses."

Canterbury Christ Church University SCIENCE AND INNOVATION AT DISCOVERY PARK



Canterbury Christ Church University is involved in some groundbreaking research in the life sciences, which could have a major impact on people's health.

Academics at the university's Life Sciences Industry Liaison Lab, based at Discovery Park, Sandwich, are researching the potential use of microscopic nanoparticles called exosomes to help in the early detection of lung cancer.

The work is a collaboration between Christ Church, the University of Liverpool and the Roy Castle Lung Cancer Foundation, together with their industrial collaborators Austria-based Anton Paar and the US science firm HTG Molecular Diagnostics.

Dr Cornelia Wilson, Senior Lecturer in the School and Academic Laboratory Manager, said: "Lung cancer is still difficult to detect at an early stage, but hopefully our research will help to make progress towards the early detection of this disease.

"We have been successful in applying for further funding and together with the University of Liverpool are working towards a clinical trial in using these markers as a diagnostic test. That is the key with lung cancer, it needs to be caught early for treatment to be effective and early detection is still very difficult. Hopefully through our work we will be able to use these markers to identify cancer cells at their earliest point, before tumours begin to grow."



THINK MODERN



Aspiration, opportunity, inclusion

Modern universities have increased the opportunities for people from all walks of life to experience the transformative impact of higher education. Mature learners, people already in work, and all those who thought higher education was only for others have been able to unlock their potential and create new careers for themselves and new lives for their families. This diversity of approach and student profile is a key pillar of the modern university sector.



INNOVATION, INGENUITY AND INCLUSION FROM BRITAIN'S MODERN UNIVERSITIES

Tim Blackman, Vice-Chancellor, Middlesex University



Modern universities are the most diverse part of the UK's higher education sector. Our students bring a rich mix of identities and abilities, and come predominantly

from areas of the country with lower rates of participation in higher education. Most adult learners study at our institutions. We are an engine of social mobility, not just for young people but for everyone.

Our inclusiveness brings with it the challenge of teaching students who often did not reach their full potential at school or college but who have an immense amount to offer with the right support. This is not just about great teaching but making sure that we do everything we can to help with the financial challenges and sometimes struggles with mental health that many of our students face as they juggle the demands of study, often long commutes and frequently part-time work and caring responsibilities.

The disadvantages our students and their families commonly cope with are reflected in the ways our institutions are often measured and assessed, such as league table rankings biased towards older, highly selective and research-intensive universities, or the Teaching Excellence and Student Outcomes Framework with its crude metrics and cliff-edge medal categories of bronze, silver and gold.

This is not to deny that our universities need to keep improving, nor special pleading for our mission. You only need look at our strategies and targets to see the demanding goals that our boards set for us (and which are often much more relevant to the needs and success of our students than the voluminous regulatory and statistical returns now expected of the sector). But it is to argue that we have a higher education sector still differentiated in many people's minds by prejudices such as old is better than new and selecting by prior attainment is a better way of assuring the quality of education than expecting learning gain across a range of abilities from high quality teaching.

Modern universities are where some of the most innovative teaching and learning is taking place in the sector, especially moving away from a focus on the subject to a focus on the problems we want our students and graduates to be able to solve. This means less emphasis on transmitting content and more emphasis on developing and practising skills: above all the skill of 'learnability' and equipping our graduates to be lifelong learners in workplaces where the pace of technological change will demand frequent reskilling.

At Middlesex, we are remodelling our teaching spaces to enable active and technology-enriched learning, keeping our library open 24/7, providing a free e-book to support every module, working to ensure our research helps our students learn and achieve, and developing new course and assessment designs that require our students to demonstrate their skills. We have a long record of enabling work-based

learning with clients such as Worldpay, Royal Mail and BT, and are now using this to deliver hundreds of higher and degree apprenticeships. We are also bringing the modern workplace to the university, such as our cutting-edge Festo Cyber Factory for training tomorrow's design engineers, and we are preparing our students for the demands of real-world practice using virtual reality technologies, such as simulating child birth scenarios with student midwives, ensuring they have a much wider range of experience than ever before.

Modern universities have opened up these opportunities to more and more people, and we have spread wealth by doing that. Yet we are sometimes criticised for our success, with claims that too many young people are going to university. This, though, always seems to be about other people's children. While surveys show that over half of the public think there should not be any further expansion of higher education, when asked about their own children the answer from almost everyone is that they are likely to go to university. That would need the number of places to more than double. Heading that way would be a good thing. The evidence is that rather than those who did best at school – overwhelmingly from better-off families – having most to gain from higher education, it is young people from low income families who have most to gain from the higher future earnings that a degree generally brings compared to their peers who do not go to university.

The UK's standard full-time degree has been a huge international success and continues to be so. But there is merit in the argument that higher education is too dominated by this model and that some students may be better served by higher apprenticeships and shorter level 4 and 5 qualifications. It is often assumed that this means fewer of the kinds of student we serve in modern universities studying for a degree, when it should mean all students considering these options. It is often similarly assumed that

this means fewer students undertaking standard degrees, when future skills forecasts show we need more students qualifying at all levels of higher education from levels 4 to 8.

Providing appropriate and widely accessible information, advice and guidance to schools and colleges is essential in this context. All universities have an important role to play when engaging with schools and colleges to set out the full range of education and training pathways so that learners can find the right course for them, avoiding assumptions driven by parental backgrounds or gender stereotypes. At Middlesex our 'Make Your Mark' resources are exactly that, providing a 'one stop shop' of advice and information for 11 to 16-year olds, including further and higher education and apprenticeships. We also take our message into the community, such as the multi-award winning SMASHFest when our academics and students run events in neighbourhoods across London to engage young learners and their parents, who are often not graduates and are unfamiliar with universities and the opportunities they open up.

Modern universities are diverse because they are not highly selective, and their diversity is a rich resource. Not only is there growing evidence that a diverse student body helps all students learn more successfully, but our students' diversity has a value. At Middlesex we are seeing increasing interest from employers wanting to diversify their workforces because it makes business sense. These are the most progressive companies and public services, such as publisher HarperCollins, high-tech manufacturer Siemens, the Ministry of Justice and the NHS. They still want graduates with the skills to make a difference, but they also want the new perspectives and new thinking that come with more diverse teams. This is where modern universities can really make their mark, driving productivity and social mobility as two sides of the same coin.



GUEST BLOG

MENTAL HEALTH EDUCATION, NOT ENTERTAINMENT

Jolei Miah, PHD Student At The University Of Bedfordshire

Lots of people are talking about mental health and although that is encouraging, it doesn't necessarily mean people are saying the right things. It's almost as if they have discovered this new thing and they don't know what to do with it. Stuff like that can be harmful to them and others by putting incorrect information or unhelpful content out there.

Mental health is a serious topic and we all should take opportunities to improve our surrounding environments to prevent mental ill health or manage mental health problems.

For me, tackling stigma and discrimination is key to achieving better mental health for everyone. Sometimes discrimination can be obvious, but it can also be hidden in employer practices, policies and some laws. It can also take the form of subtle actions from others to treat people who have mental health problems differently. This can leave the person feeling more isolated and can trigger negative thinking in their life, so increasing the stigma.

How it can be taken into the community?

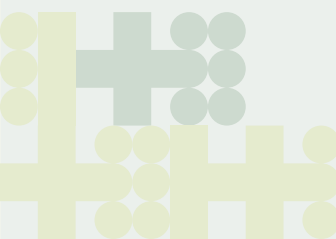
It's simple to make changes to your environment to improve mental health. Have open conversations about mental health, listen more and talk less when someone is talking about their mental health, and get your employer, community, school, local businesses to deliver the Time To Change pledge.

You can also join your local mental health charities and ask your university to support you.

The University of Bedfordshire was instrumental to my development

A wide variety of individuals at university contributed to my work, especially to the charity I founded Our Minds Matter. My supervisors gave me lots of confidence to help develop my ideas by sharing what they know. They also taught me how to use tools to effectively evaluate the impact of the work we do at the charity. They never dismissed the intellectual arguments but rather give me lots of examples of other areas where similar concepts have worked.

It's not just the teaching staff, but right across the university; despite being under pressure, staff have been very supportive and welcoming. I was proud to win the HM Lord Lieutenant Community Engagement award at the Vice Chancellor's Student Experience Awards in 2017. Winning was such a shock, I stayed in my seat for a few moments.



Founding of Our Minds Matter

I remember delivering a short seminar on the positive role of faith/religion on mental health at Denbigh High School, where I received my secondary education. It was the first time I had been back there in a formal capacity since leaving there with my GCSE results (I only managed to get 3 A-C's, but looking back and given the circumstances I respect my results!).

After this seminar I asked members of the audience who would like to form a group. A few members put up their hands and two of them are still with me today and are co-founders, Catherine and Ali.

We are now a registered charity focused on promoting mental health in the diverse communities of Luton and Bedford. Our team consists of individuals who have either professional or personal experience in the field of mental health. We understand the challenges that community leaders, health service providers, employers, commissioners and stakeholders are facing when reaching out to the diverse population. We have developed a targeted approach to help tackle health inequalities and promote mental health and wellbeing.

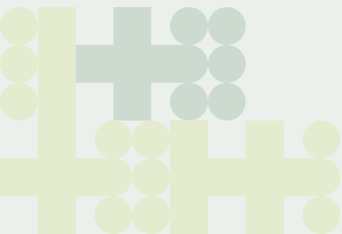
Our insightful conference brought together many committed individuals across the town to explore how we can break the

stigma attached to mental health in our communities by using faith and culture. Further activities included coffee morning sessions during Mental Health Awareness Week which allowed us to spread the word of mental health wellbeing. We believe no one should fear being judged for talking about mental health and how it affects them.

Our outreach team attended a variety of summer events to talk to folk about mental health and how we need to have those conversations in our networks of friends and families. Our sporting event organised in partnership with Community Needs engaged more than 300 people in the town and gave them an opportunity to learn about the mental health services available.

Our Minds Matter has also been awarded hub status as the official 'Time To change Hub' in Luton and we have also developed a Bedford branch of the charity.

Time to Change Hubs, are local partnerships which have demonstrated their commitment to: putting people with personal experience of mental health problems at the heart of their work; embedding anti-stigma and discrimination work locally, whether that be local schools, workplaces or other community settings; and proactively campaigning to improve people's attitudes and behaviours towards mental health.





CASE STUDIES

University of Bedfordshire

NATALIE ANDREWS, BA (HONS) FINE ART



University of
Bedfordshire

Natalie Andrews was able to follow her passion for art while holding down a job and looking after a family.

Mother-of-two Natalie, 39, is studying Fine Art at the University Bedfordshire. She has studied art at other institutions in the past but wanted to return to study to focus solely on her passion.

"I studied a foundation course before going on to work in an unrelated field, but I always kept a passion for making things, viewing and thinking about art," said Natalie, who worked as a learning support assistant before returning to study.

"When the opportunity arose I wanted to concentrate wholly on creative work as this felt like the most enriching thing I could do."

A visit to Alexon House, home of the university's School of Art & Design on Guildford Street in Luton sealed the deal for Natalie.

Natalie found that she had the space to explore her artistic ideas with the support and guidance of staff, as well as other students. She was also able to host her very own exhibition in the Storefront on Bute Street.

Natalie feels it is the combination of high quality facilities, excellent student support and the local environment that has helped her flourish.

"Luton is one of those places which benefits from creatives so the local community really welcomes it. There is a diverse culture here and the university is at the centre of the creative district, 20 minutes from London – what more do you want?"



CASE STUDIES

Canterbury Christ Church University

INSPIRATIONAL STEM OUTREACH PROGRAMMES



Christ Church was delighted to host Inspiring Minds and Engineering Summer Schools – two exciting outreach programmes designed to ignite an interest in STEM subjects among secondary school children.

The Inspiring Minds programme consisted of Saturday workshops and sessions at the Canterbury Campus, with the aim of empowering school children to make informed decisions about their education and employment trajectories while providing spaces where they can share their ideas and have their voices heard.

All sessions had direct real-world links back to the curriculum and give students the opportunity to design and create solutions to genuine questions that touch on the nature of human uniqueness and link to their interests.

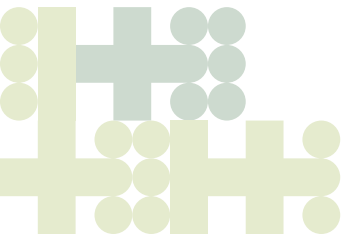
The students' solutions to these problems were displayed at Inspire to Enquire, a final showcase exhibition in the summer. As part of the initiative, students also had the opportunity to complete a prestigious CREST Award – a British Science Association scheme for STEM project work that inspires young people to think and behave like scientists and engineers.

To coincide with the government's Year of Engineering and the university's exciting plans for curriculum expansion in science, engineering and technology, Christ Church also partnered with the Bloodhound

Supersonic Car (SSC) Project to deliver innovative education and engagement activities at two residential summer schools on the Canterbury campus.

The pupils learned about the underlying engineering principles behind Bloodhound, including the drag, thrust, aerodynamics and friction of this supersonic car before going on to design, build and race their own model rocket cars with the expertise and assistance of the Bloodhound team.

Both the summer schools and the Inspiring Minds project were funded by the Kent and Medway Collaborative Outreach Programme (KaMCOP), a group of higher education institutions (including Christ Church) and further education colleges who are working together to deliver targeted outreach across the region.





London South Bank University

LEVELLING THE PLAYING FIELD

London South Bank University (LSBU) has a highly diverse student body and one of the lowest entry tariffs in the country.



**London
South Bank
University**

In 2016/17, 51% of LSBU students identified as BME, 56% came from deprived neighbourhoods and 79% were mature students. Despite this, the university is joint 11th in the UK for starting salaries and in the top four for graduate outcomes. It has also been named University of the Year for Graduate Employment for an unprecedented two consecutive years by the *Times and Sunday Times Good University Guide*.

LSBU attributes this to its Educational Framework, which is made up of four elements: providing knowledge; creating opportunities to apply that knowledge; generating the confidence to apply it through engagement in extracurricular activity; and ensuring the knowledge is current to the professional environment into which the learners progress through links to industry and the professions.

More than half of its courses have professional accreditation in addition to their academic status and LSBU has also committed to offering a placement, internship or another professional opportunity to each student during their studies.

All of LSBU's academic Schools provide numerous opportunities to engage in practical application of the knowledge they teach, such as: the LSBU Legal Advice Clinic and the Business Solutions Centre, which provide students the opportunity

to advise local residents and businesses on a drop in basis under the supervision of qualified academics.

Finally, we also provide employment support, guiding students through the process of securing employment – even after they've graduated. This includes a Graduate Internship Programme and our own employment agency, Elephant Works, which provides an opportunity for students to experience employability from day one of their student journey.

96% of entrants to modern universities went to a state school.



CASE STUDIES

Middlesex University

“EMBEDDING EQUALITY, DIVERSITY AND INCLUSION”



**Middlesex
University
London**

Middlesex is a diverse university, coming 14th in the *Sunday Times's* 2019 university rankings for social inclusion, and 4th nationally for proportion of BAME students of all ethnicities. Many students do part-time work and around 30% commute to university for an hour or more each way.

In 2018 Middlesex became the first UK university to receive a Charter Mark from diversity specialists, the United Kingdom Investor in Equality and Diversity (UKIED). In its assessment, UKIED said there was “overwhelming and compelling evidence that Middlesex is genuinely committed to embedding equality, diversity and inclusion (EDI) within all elements of the learner experience”. Diversity education at Middlesex includes an undergraduate EDI module, which puts students in the shoes of those of a different identity or background, or with a disability, to help understand their perspective and overcome unconscious biases.

The Ministry of Justice, which has a social mobility framework to attract and retain diverse talent, visited the university in February 2018, and now uses Middlesex as a case study in how to promote social mobility, and is developing an internship programme designed specifically for Middlesex students.

The university has a partnership with London's biggest further education provider Capital City College Group, and is campaigning alongside CCCG for the education system to offer greater flexibility for learners to move between different types of learning. Middlesex delivers a range of professional and work-based learning programmes, including apprenticeships, with employers such as Royal Mail, easyJet and BT. It is now a pioneer of degree apprenticeships, offering an alternative route to public services and industry roles for candidates from a wide variety of backgrounds.

The first Gradstock careers festival brought employers such as Siemens Financial Services, Capita IT Resourcing and HarperCollins to Middlesex. Unitemps has connected students to jobs on campus amounting to more than 100,000 hours of paid work in 18 months, while the MDXcel scheme helps secure work experience with local companies for students with in-demand skills.





Edinburgh Napier University

MORE THAN 700 YOUNG PEOPLE BENEFIT FROM SUCCESSFUL SCHOOLS ENGAGEMENT PROGRAMME



Edinburgh Napier's Schools Engagement Programme has been working with young people from Gorgie and Sighthill in the city's south-west for the last two years, helping more than 700 young people.

The programme of activities has aimed to address some of the below average performance indicators associated with the south-west with regards to employment, housing, health, crime as well as education, skills and training.

The programme has also focused on instilling a sense of academic aspiration and pride into participants, alongside highlighting the opportunities and pathways into further and higher education – something that many children from Gorgie and Sighthill may have previously thought was out of reach.

In 2018, the programme worked with a number of primary six and seven pupils in various activities across the area.

Working in partnership with Edinburgh Rugby and Scottish Rugby, the university delivered a range of rugby sessions that focused on basic skills, health and fitness and teamwork.

Futsal skills sessions have also been delivered in partnership with Hutchison Vale Community Football Club and Salveston Football Club, with the Big Hearts Foundation also presenting on how the game can be used as a medium for rebuilding lives in the local community.

Other activities include developing radio and TV campaigns to encourage young people to think about studying at university alongside working with Edinburgh Napier science academics on various exercises and experiments.

The Schools Engagement Programme supports Edinburgh Napier's Widening Participation strategy and aims to be a key partner in initiatives to close the attainment gap in local schools. The sporting activities underpin the university's Strategy for Sport that is investing in people to build a community of physical activity and health.

CASE STUDIES

Solent University

INSPIRING THE NEXT GENERATION OF UNIVERSITY STUDENTS

SOLENT
UNIVERSITY
SOUTHAMPTON

Every year, students studying BA (Hons) Sport Coaching and Sport Development at Solent are tasked with developing a project that addresses social needs through coaching, sport or physical activity.

Mikey McColm's group's coaching innovation project (CIP), Employ Active Plus, engaged with local college students to discuss the benefits of higher education.

Employ Active Plus worked with students from Isle of Wight College, aiming to increase their higher education aspirations by showing them a variety of courses and universities they might be interested in.

Lasting for 10 weeks, there was a mix of classroom and practical sessions that developed the communication, confidence and leadership skills of the participants. They were encouraged to lead sessions and coach each other, and helped with CVs and personal statements.

Mike believes that leading the CIP also benefitted him. "Something I started to realise when applying for jobs was that I now have this role of running a project and being a lead co-ordinator on my CV. This is something that a lot of people my age coming out of university don't have, and definitely increased my job prospects."

Since the project Mike has won a job with Dallaglio Rugby Works, a charity that works with alternative provision schools, founded It by former England international Lawrence Dallaglio. The charity works with young people using rugby as a tool to encourage them back into education or employment.





Staffordshire University

FROM PSYCHOLOGY FOUNDATION YEAR TO FIRST CLASS HONOURS DEGREE



Deciding to go to university can be daunting, but mum of two Toni didn't let anything stand in her way.

Born and bred Staffordshire girl Toni Litherland, 33, said that she was transformed into a "whole new person" whilst studying Psychology and Counselling at Staffordshire University.

"I was at a turning point in my life," she said. "I'd not long had two children and I'd been made redundant from my job. I thought if I don't go and do a degree, I never will."

Determined to prove her capabilities, Toni began studying a foundation year and then moved onto BSc (Hons) Psychology and Counselling.

Raising children and juggling university work is no easy feat but the journey through university was worth every second for Toni.

"If you've got that determination nothing should stand in your way and that's the driving force behind everything.

"My daughter is nine going on 30. She will ask what work I have and what grade I got. She likes to keep me focused. Her younger brother has disabilities so his support is more subtle, it usually comes in the form of cuddles right when I need them."

Toni went on to achieve a first class honours degree and the example that she set for her children has ignited her daughter's own ambitions.

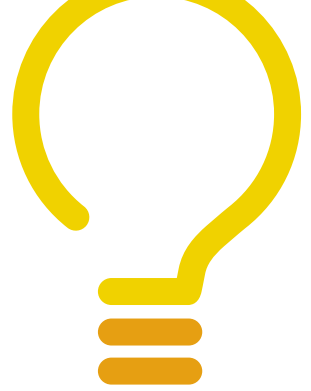
"The one thing that got us through it all was being at graduation today; that's what I kept reminding myself about and saying to the kids.

"My daughter wants to be a doctor and I hope today will spark that enthusiasm to drive her forward with her dreams."

In England, modern universities accounted for **79%** of full-time mature entrants to higher education.



THINK MODERN



Entrepreneurial,
enterprising, enriching

Modern universities have found ways to unleash ingenuity by placing entrepreneurialism at the centre of the curriculum. They support students in creating businesses, social enterprises and charities well before they have graduated. This provides them with enriched expertise and experience which benefits them whether they become employers or employees.



GUEST BLOG:

BRIGHT RED TRIANGLE: A HUB FOR INNOVATION AND ENTERPRISE PRACTICE AT EDINBURGH NAPIER UNIVERSITY

Nick Fannin, Head of Bright Red Triangle, Edinburgh Napier University

Bright Red Triangle first opened in 2005 as a business incubator for Edinburgh Napier University students and graduates.

Since then, the department has grown to be a university-wide initiative aiming to positively impact our student experience, local businesses, and the wider community by supporting innovation and enterprise practice among our students, alumni and staff.

We take pride in our enterprise start-up activities, business support, consultancy services and social innovation projects. Our goal is to equip students with the knowledge and confidence that they need to succeed in whatever they do next. We run extracurricular events and workshops, and support the development of entrepreneurial behaviours in members of our community.

“BRT is the hub for a confident, resilient, ambitious and resourceful community that is connected across the Edinburgh Napier family.” – Nick Fannin, Head of Bright Red Triangle, Edinburgh Napier University

In 2018 we supported over 240 individuals to develop their ideas with 110 becoming registered businesses. Our offer includes co-working space, tailored business advice, access to our network of professional



services including lawyers and accountants, plus sign-posting to relevant competitions and events within the local entrepreneurial ecosystem and beyond. The service is free for our users, there is no time limit, and we do not expect any remuneration in the form of equity from our members. To date, Bright Red Triangle has supported over 500 businesses to start, with a success rate of over 30% still in business.

One of our success stories is GearedApp, a mobile and web development company based in Edinburgh. The three founders – Lara, Josh and Andrzej – met during their Postgraduate studies at Edinburgh Napier’s School of Computing. GearedApp now operates from their own premises, with ten staff, and clients in four countries.

Lara Findlay, Director/Operations of GearedApp said, “Bright Red Triangle was a huge source of support for us starting GearedApp. We started out as students with an idea, and BRT gave us the all-important guidance and direction to start our company. From helping us incorporate to setting up meetings with important contacts and organisations, BRT pushed us to get things off the ground. They also

provided access to the incubator office space and hi-spec equipment that was truly fundamental to helping us grow in the early days. We continue to stay in touch with BRT and their support is still hugely valuable to us five years on.”

For students who wish to gain practical experience working entrepreneurially for businesses, we have BRT Consultancy.

At BRT Consultancy, we recruit students from all disciplines across the university and train them to become Junior Consultants. Our Junior Consultants then receive opportunities to undertake ad-hoc paid consultancy work for external businesses, while being mentored and guided by industry experts to ensure the commercial quality for our clients.

To date, we have completed over 65 projects for businesses within Edinburgh and beyond, and in the past year have supported over 60 students to gain practical experience.

Jean Burke, Marketing Manager of Mercat Tours and a client of BRT Consultancy said, “BRT has been really helpful for Mercat Tours International bringing a fresh perspective to our social media channels. It’s been great to work with the team on putting brand guidelines in place, finding a schedule that works for our followers and always developing the content on our social profiles.”

Kimberley McGreish, Junior Consultant said, “My experience with BRT has been great and is a key addition to my CV. It has given me just the right experience I needed as a business student while fitting easily

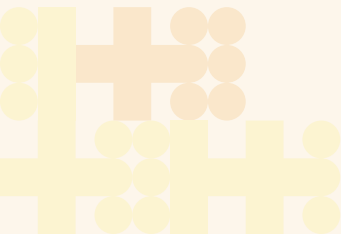
around my studies. The Senior Consultant has been really helpful, and BRT as a whole is inspiring where you will meet and work with some great people.”

The third pillar of BRT activity is Changing Perceptions. This programme supports active citizenship among the Edinburgh Napier community, aiming to empower and inspire our members. Following a design-thinking approach, we run interactive workshops to enable team-based problem solving. By providing participants with tools that foster active listening, ideation, innovation and collaboration, we can encourage students to co-create solutions to problems that can have a real impact on their communities.

Bright Red Triangle has reached over 2,000 Edinburgh Napier University students in the past year alone – through our enterprise start-up activities, BRT Consultancy, and Changing Perceptions. Working closely with our colleagues in academia we are able to support, deliver and share entrepreneurial practices to an even wider audience than before, enabling us to create sincere professional relationships within the university, as well as the wider business community in Edinburgh and beyond.

Bright Red Triangle’s ambition is for Edinburgh Napier to be recognised as a leading institution in Scotland for innovation and enterprise.

Working with respected and engaging partners, we provide Edinburgh Napier students, graduates and staff with a range of services and opportunities to develop themselves and their ideas to the point where they can have a commercial or social impact. Hopefully both!



CASE STUDIES

University of Bedfordshire

LUTON ENTREPRENEUR CREDITS UNIVERSITY OF BEDFORDSHIRE AS THE BRIDGE TO SUCCESS



University of
Bedfordshire

Starting your own business isn't easy, but for Gavin O'Brien, university study gave him the skills he needed to create a highly successful media production company.

Gavin, from Luton, studied Media Production and Business Administration at Bedfordshire. It was there that his passion truly took flight.

"Coming to university gave me the chance to meet new people, but most importantly, it had that sense of security. You could tap into the knowledge and expertise of experienced lecturers and work out exactly what you wanted to do. Having good mentors was really important."

That all important support carried on even after Gavin graduated. Along with fellow graduate and childhood friend Alex Lawrence, the pair started their own media production business, advised every step of the way by their tutors, who even let the pair borrow university equipment in the early days and offered endless advice for running a business.

And so it was then that Clearhead was born, and it wasn't long before Gavin and Alex were able to buy their own equipment. The company has gone from strength to strength and has national organisations like Cadbury, the BBC, Sky and Coca Cola on its books.

Now Gavin and Alex take on other graduates from the university and regularly share their expertise to current Media Production students during workshops and masterclasses.

Gavin and Alex base themselves at the Hat Factory in Luton but have gone on to open offices in London and most recently New York.

Gavin chairs the Board of the Luton Business Improvement District group, which aims to build an entrepreneurial business community in the town.

Now a Partner and Business Director for Clearhead, Gavin said: "University is the perfect bridge between education and the real world. It's a chance to focus on your work and get work experience which gives you a perfect foundation for a career."

CASE STUDIES

London Metropolitan University

THE ACCELERATOR AT LONDON METROPOLITAN UNIVERSITY



London Metropolitan University has been a pioneer of entrepreneurship for over 15 years.

Over this time it has helped thousands of small businesses and entrepreneurs through its programmes and facilities at Accelerator, the university's business incubator in the heart of what is now Tech City. In 2003 LMU won a European grant to bring tech skills to Hackney and created Accelerator to prepare young people for the growing digital economy. The space has expanded its support over the years to include a wide range of training, mentorship, funding advice and affordable work space.

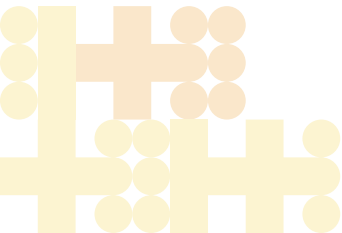
Accelerator is the longest running startup support centre in Tech City and an early model for the successful co-working incubators that are such a vital part of the economy today. It was also an early example of universities working beyond the walls of their campus and setting up spaces that act as a bridge between academia and business.

London Met's Student Enterprise initiative runs entrepreneurship programmes from the Accelerator, in an environment benefiting from the support of successful company founders based in the building. This unique model, bringing startups and students together, and forming part of London Met's work-related learning

programme taken by all undergraduates at the university was recognised by the Small Business Charter in 2018. The Charter award included Exemplar status (one of only three in the country) in recognition of the way students from across the university are linked with businesses, and the support provided to SMEs and startups.

Accelerator is home to 30 early stage tech business and 12 graduate startups. Companies based there over the past three years raised £14m in investment and made £21m in revenue in 2017, while creating 170 new jobs.

In 2017-18, graduate start-ups linked to modern universities are estimated to have generated **£338 million** in turnover and are estimated to have employed **14,482** people.



London South Bank University

THE CLARENCE CENTRE FOR
ENTERPRISE AND INNOVATION



Since 2013, the Clarence Centre for Enterprise and Innovation has provided the focal point for London South Bank University's (LSBU) enterprise and innovation activity across the campus as well as a hub for start-up businesses. It was recently ranked second in the UK, fourth in Europe and fifteenth globally for a university-managed incubator by UBI Global World Rankings.

LSBU's campus is home to 72 small or medium-sized enterprises (SME), which contribute to the university's work and curricula, whilst receiving access to the university's research and business support expertise. The Clarence Centre also houses our student-led Legal Advice Clinic and Business Solutions Centre, as well as student businesses and alumni entrepreneurs who receive 12-month access to space, funding and mentoring through our Graduate Entrepreneur Scheme. Our on-campus tenants engage with LSBU through sponsoring PhD

students, contributing to curriculum development and giving guest lectures, enhancing the education and experience of the LSBU student body.

Annually, over 5,000 LSBU students and graduates are supported through activities at the Clarence Centre. Since the centre opened in 2013, our on-campus business community have generated 337 new jobs and raised £13.5m in finance. The centre has also supported over 1,600 SMEs to sustain and grow their operations.



CASE STUDIES

Edinburgh Napier University

SYDNEY CHASIN AND LIL'POP



From winning funding for her innovative ideas to taking her startup story to Downing Street, Edinburgh Napier graduate Sydney Chasin has had an incredible journey from student to a fully fledged business owner and entrepreneur.

Supported by the university's Bright Red Triangle business incubator, she has now brought her product to market and has her sights set on growing even further – but her journey first began as a student in financial services with entrepreneurship.

Sydney was inspired to start her own business – The Healthy Crop – after completing her studies and became the first recipient of the university's graduate entrepreneurship visa sponsorship.

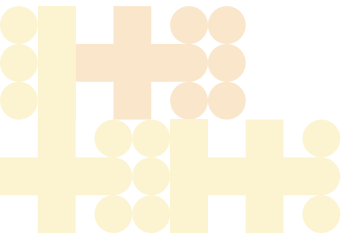
Her product lil'POP is a healthy snack that uses a crop called sorghum to produce an alternative to popcorn. Made from sorghum grain, her pink Himalayan salt flavoured-snack is the first of her products to be released commercially.

Sydney won support and financial funding from a host of sources including The Royal Society of Edinburgh, Scottish Enterprise, Scottish Institute for Enterprise and an incredible £10,000 through the Scottish EDGE competition – a project aimed at identifying and supporting Scotland's up-and-coming potential entrepreneurial talent.

She also took her story to 10 Downing Street as part of an Enterprise Nation delegation to meet special adviser to the Prime Minister Jimmy McLoughlin and business engagement manager Niamh Mulholland for a special event on young entrepreneurs.

She said: "As a young entrepreneur, setting out to create a global business, I find it important to know that I am being heard and that the government support and conditions are right to enable the success of both my company and other young companies. Opportunities like this give entrepreneurs a voice at what is arguably the most important table in the country."

The commercial launch of lil'POP signalled the next milestone in Sydney's entrepreneurial journey. With her product now officially on the market, Sydney is beginning to attract investment to the business to allow for further expansion – including the release of two new flavours.





Solent University

FROM GRADUATE TO #GIRLBOSS

SOLENT
UNIVERSITY
SOUTHAMPTON

Photographer and Solent University alumnae, Nisha Haq, has been awarded the honorary degree of Master of Arts

After graduating from the university, Nisha went on to successfully set up her own photography business. Based in Southampton, Nisha specialises in providing wedding, lifestyle and commercial photography for a wide range of clients.

"One of the most amazing things about Solent is how entrepreneurial the university is, and how much amazing support there is to set up a business. Without that support I wouldn't have had the confidence boost and initial investment to get started."

In 2017, she was named IPSE UK's Young Freelancer of the Year, and was shortlisted in the UK Wedding Awards 2018 for Best Photographer.

Nisha is a regular speaker on the subject of entrepreneurship, and has spoken at: Freelancing for Students event, London South Bank University; International Entrepreneurship Educators Conference, Glasgow Caledonian University; and both International Women's Day Fearless Females and Research, Innovation and Enterprise conferences at Solent University.

She is passionate about encouraging enterprise, in particular young females in the creative industries. An avid blogger and influencer in the creative freelance community, Nisha regularly posts and shares tips on freelancing. Nisha believes that with commitment and passion anyone can become their own #girlboss!



CASE STUDIES

University of Wolverhampton

NEW CHALLENGE ACADEMY LAUNCHED TO BOOST SKILLS



Students will be taking on real life business challenges as part of a new project at the University of Wolverhampton.

The Challenge Academy partners students with a regional business or organisation to work on a bite-sized project with support from academic experts.

Launched during the university's Career Development Week, the Challenge Academy aims to give students additional skills to boost their CVs while enabling a business to benefit from staff and student expertise.

The project was piloted by the Faculty of Social Sciences with 100 students taking part in 10 challenges. Now the scheme is to be expanded across the university.

Dr Robert Harris, Principal Lecturer Postgraduate Employability, said: "The feedback from the pilot scheme was very positive, with students reporting the experience had given them more confidence in an interview situation. Two students even secured jobs and they felt that their success was due in part to being involved in Challenge Academy, so we're really looking forward to opening this out across the university.

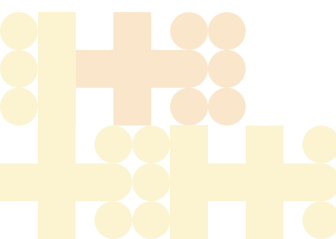
"The idea is that businesses or other organisations will come to us with a challenge, problem or opportunity and the students will provide short-term support. The business benefits from highly cost-

effective support from a specialist student under the supervision of academics or professional mentors, and the students' employment prospects are enhanced at the same time – it's a win-win."

One of the companies that has already benefited from the partnership is Walsall-based Marlborough of England, formerly Marlborough World, which undertook a project focused on export marketing and decided to rename itself as a result.

Richard Taylor, Director, Marlborough of England, said: "We're involved with the Challenge Academy as it gives students the opportunity to go that next step further. When students enter the world of work, they'll find they need real world experiences and things that give them the extra edge to stand out from the crowd."

Modern universities were responsible for **66%** of all graduate starts ups and **57%** of social enterprises coming from the HE sector.





MillionPlus

The Association for
Modern Universities

THINK
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