

Transforming Knowledge and Ideas into Action



**The UCL Innovation
and Enterprise
Strategy 2016-2021**

Introduction

As an institution, a community and individuals, we have outstanding opportunities to make an ever-increasing difference for the good to society and the economy, globally, in the UK and in London. Now, more than ever, we can build on our collective successes and provide an approach and framework to create a real spirit of enterprise at UCL. To achieve this, we challenge ourselves across the university to focus on the following strategic innovation and enterprise priorities over the next five years:

- Improve UCL engagement with business and innovation partners
- Contribute to the employability of all students, staff and the wider community
- Use our position in London to benefit London, the UK and the wider world
- Promote and embed an effective culture of innovation and knowledge exchange across UCL
- Contribute to the financial sustainability of the institution.

This strategy sets out how we can work together to support everyone in UCL to bring more brilliant ideas to life in the real world and demonstrate great impact from the many areas of strength and importance across

the university. Our aspiration is that academics, researchers, students and professional staff will develop their responses to these priorities: it is only in this way that we can all achieve the wider ambitions of UCL, including those of UCL 2034.

We are already working across the university on all five priorities, through a breadth of skills and contribution in business development, technology transfer, consultancy and support for short course and professional development, project and programme management. In all of these areas we will continue to bring professionalism and leadership, a commitment to collaborate with all members and parts of the university, and to build

outstanding relationships with external partners, be they from business, government, London, the UK or the wider world.

We know that the impact of universities through transformative research, teaching and the innovation that these enable is of immense significance to the world. Globally, governments increasingly recognise the importance of the role that we can play as drivers of societal and economic benefit. In the UK, this has taken the form of greater investment to support innovation in universities from a variety of sources, encouraging societal and economic benefit from university research, innovation and teaching. In parallel, an increased commitment from our government has developed into strategic approaches to engaging more with industry, including supporting universities within innovation ecosystems and pipelines.

UCL, as a world-leading, research-intensive, large and comprehensive university with a tradition of radical thought and action, can complement its outstanding research and teaching reputation and impact with delivering an equivalent depth and breadth of societal and economic benefit. We are natural drivers of this in how we work with our staff, our students and alumni, our research capabilities and outputs, our partnerships and across our estate. The UCL Innovation and Enterprise strategy 2016-2021 seeks to capture our opportunities together to bring such benefit, making us more than the sum of our parts.

Underpinning this strategy is our commitment to the delivery of UCL 2034. By keeping this firmly in sight we too want to help UCL increasingly be the partner of choice for policy makers and governments - UK and internationally - business and industry, third sector organisations and others. We want our graduates to be sought after by ever-more employers, and our alumni to be found in positions of significance, leadership and influence throughout the world. We can help UCL collaborate with business and transform industry sectors, leading to ever-more excellent research. And reflecting this, our wholly-owned companies UCL Business (UCLB) and UCL Consultants (UCLC) will not only continue to contribute significantly to the reputation and sustainability of UCL, they will in their own rights be recognised as outstanding routes for the translation of research and knowledge to application in the UK and the world.

We know that strategies describe ambitions and aspirations. Knowing whether these are being reached and achieved helps us to understand what works, what brings the greatest benefit. As part of addressing this, each year we will set out our achievements against this strategy, and our delivery plan for the coming year.

We look forward to working with you all to deliver this exciting and challenging strategy.

Dr Celia Caulcott, Vice-Provost (Enterprise and London)

UCL as an engine of innovation and impact

UCL's distinctive reputation for enabling staff, students and alumni to be radical and transformatory in their thinking and approach to the challenges and opportunities of the world has been demonstrable for nearly 200 years. It is equally matched today by an ongoing tangible commitment to delivering impact in every area of our lives, from health, culture and public policy to the environment and new technologies.

Innovation and enterprise clearly underpins this commitment and impact. It describes both a state of mind – dynamic, ambitious and energetic – and a pragmatic approach to applying new ideas and findings to achieve real impact. UCL has an outstanding level of achievement as an innovative and enterprising university, reflected in our breadth of contribution, locally, across the UK and globally.

UCL's history of innovation

UCL's foundation in 1826 was an innovation in Higher Education. It was influenced greatly by the work of Jeremy Bentham and his doctrine of Utilitarianism – and his belief that existing universities of Oxford and

Cambridge were not keeping step with the needs of a rapidly changing society. UCL was established in 1826 in order to open up education in England for the first time to students of any race, class or religion. By 1878, it had become the first English university to welcome female students on equal terms with men.

UCL soon opened the first departments of Chemistry, English, Civil Engineering, and Architecture, establishing them as academic disciplines. At UCL the first operation under anesthetic was performed, the noble gases were discovered, the thermionic valve invented, the first transatlantic network connection made.

From these early UCL innovators to today's Olympic Gold medal winners, world-renowned artists, award winning architects through to practitioners at the leading edge of science and medicine, a culture of innovation at UCL has continued to be part of who we are, and how we inform and influence the world.

Partnerships enable innovation and can be seen in UCL technology spin-out companies such as Space Syntax Limited, whose high-profile projects have included the redevelopment of Trafalgar Square, and UCL biomedical technology spin-outs that are addressing urgent unmet clinical needs, particularly in rare diseases.

It is not only UCL staff, but students too who have an increasing reputation for outstanding innovation and entrepreneurship. This has led to the formation of exciting new companies such as Bio-Bean, an award-winning clean technology company that has industrialised the process of recycling spent coffee grounds into advanced biofuels and biochemicals.

Today and into the future: UCL 2034

UCL 2034 builds on innovative beginnings and a history of impact with an ambitious strategy that reflects our distinctive approach to research, education and innovation. Innovation and impact are integral to this vision, appearing in every theme and relevant to every key enabler. They will further inspire our community of staff, students and partners to transform how the world is understood, how knowledge is created and shared and the way that global problems are solved.

We are already forging new and exciting partnerships to build global prosperity through to engaging local families in our research. And with further partnerships with over 400 businesses and many public and third sector organisations, and through consultancy, short courses and the ways we engage with many others, we believe that success breeds success, and that the future is very exciting.

The UCL Innovation and Enterprise Strategy 2016-2021: Priorities

Our strategic innovation and enterprise priorities over the next five years are:

- ▶ Improve UCL engagement with business and innovation partners
- ▶ Contribute to employability of all students, staff and the wider community
- ▶ Use our position in London to benefit London, the UK and the wider world
- ▶ Promote and embed an effective culture of innovation and knowledge exchange across UCL
- ▶ Contribute to the financial sustainability of the institution.

Improve UCL engagement with business and innovation partners

► UCL has the ambition to grow and optimise the impact from its relationships with business and other innovation partners by capitalising on UCL's unique features: our research strength and capabilities, size, breadth, diversity and location. The university has a clear commitment to increasing the range, depth and impact of these partnerships: our role is to support and enable these, using our expertise and knowledge in a variety of ways.

We will support the Faculties, departments and individual staff of UCL in this endeavour. We will seek to positively influence the innovation environment in which we operate and the organisations we work with: encouraging economic growth, building a positive reputation for UCL and its students amongst businesses, supporting graduate employment and spreading of innovation. This is

especially important in London – what matters to London matters to UCL, and a thriving economy is essential to the attractiveness of London for students, staff and London's global position. We will enable UCL to bring new insights to business, industry and other innovation partners who, when working at scale, can project these around the world and catalyse new and transformative technology uptake, leading to completely new markets in which UCL can engage, creating organisations and systems that will be receptive to UCL ideas and people for the long term.

We will:

- Engage with R&D intensive, multinational businesses using a strategic, account-management based approach, attracting global investment in UCL's research.
- Establish cross-UCL collaborative models for working with business and innovation partners that allow us to explore pre-competitive or supply-chain research opportunities, such as club and network models, so that we can bring groups of companies together with UCL to tackle cross-cutting problems.
- Increase our interactions with small and medium-sized enterprises (SMEs), particularly those in London, including, but not limited to the manufacturing, biomedical, and creative and digital media technology sectors. SMEs often need help to access the resources of a university, but as drivers of economic growth and employment, their access to students, research and facilities can be highly beneficial.
- Nurture the growing community of SMEs that are UCL's spin-outs and start-ups, in order to drive economic growth and societal benefit from UCL ideas, students and staff.
- Develop sector engagement strategies, exploring how UCL leadership in certain areas can be influential in transforming businesses and sectors, for example in the built environment or stem cell and gene therapy within the pharmaceutical industry.
- Work across UCL to identify outstanding opportunities where our research, technology development, social and ethical thinking, education, life-learning and application can be brought together so as to drive major transformation in a sector, to the widest possible benefit.

Contribute to employability of all students, staff and the wider community

► UCL is deeply engaged in the exciting responsibility of educating students, empowering staff and helping our external partners, as individuals and organisations, develop their skills, honing these with research-led, cutting-edge understanding and knowledge. We can contribute to this through two substantial activities: our support of and engagement with the development and practice of entrepreneurial skills by students and, where possible, staff, and our facilitation of UCL's delivery of life-long-learning: our wide range of short courses, including continuing professional development courses. We believe that one of the key roles for a university in the future will be to support individuals to keep learning in discipline-specific fields and to make high-quality, research-informed executive and professional education available to learners across the world.

We will:

- Grow our student entrepreneurship programme, both to deliver future entrepreneurs and business leaders, and to provide opportunities for students to develop skills needed in the modern workforce such as team working, communication, planning and a broad understanding of business.
- Develop approaches to reaching all students, and engaging them with the concept of entrepreneurship, and provide ongoing business planning and support programmes for social and commercial enterprise creation. Furthermore, we will build interactions with supporters, alumni and donors to develop a programme of mentoring.
- Provide opportunities to develop entrepreneurial skills, attitudes and mind-sets in our staff, including early career researchers. The development of entrepreneurial skills in all our staff will also support a culture of innovative, new thinking and new ways of working that deliver improved service experiences for UCL's many users.
- Use our enhanced links with businesses and employers to support graduate employability.
- Through short courses and bespoke training consultancy, enhance the skills of the UK workforce – including our alumni and the wider London community – throughout their working lives, enabling them to develop new skills driven by advances in knowledge and understanding.
- Support the development of our expanding short course portfolio over the next five years, building on UCL's multi-disciplinary strengths to analyse and apply research-based education to address global challenges, helping participants to establish a competitive edge in the workplace, grow productivity and enhance employability and earning potential.

Use our position in London to benefit London, the UK and the wider world

► UCL has an ambitious London strategy. We have made a commitment to be in, of and for London, and our strategy focuses on partnerships and effective knowledge exchange. Our ambition is that UCL is sought as a partner by national and international bodies because of our contribution and commitment to, and impact on, London. Many of the priorities set out in this strategy supports this, including nurturing our start-ups and spin-outs, most of which are based in London. Other activities will see us seek to develop an overarching understanding of our interactions with London in different ways, including with Camden, the GLA and other London-based leadership bodies. We will work with our partners across UCL to demonstrate the impact of UCL as London's Global University, together supporting the UCL 2034 vision of UCL as in, of and for London.

We will:

- Work in partnership with UCL Communication and Marketing to support our position and engagement with London through development of a coordinated London-focused External and Public Affairs approach, which will include coordinated liaison with the Mayor's office, GLA and with other organisations with vested interest in developing and retaining business and industry in London.
- Collaborate with UCL Public Policy to develop interventions to facilitate our policy impact as part of institutional Knowledge Exchange schemes, in order to develop more ambitious engagement with UK and other national governments.
- Build our relationships with London businesses, identifying those major London businesses that are logical partners for UCL in terms of research, innovation and global engagement and developing appropriate interactions.
- Facilitate strategic opportunities for programmes of short courses that are driven by London-based opportunities, consistent with UCL academic strengths and London's major industries such as finance, health, the built environment, IT and culture.
- Support the development of UCL open short courses that are attractive to Londoners, and bespoke short course opportunities to be delivered by UCLC as highly focused, high quality executive education for London-based organisations and businesses.
- Establish the innovation and enterprise programme for UCL East, working with all of our relevant colleagues to embed innovation and enterprise in the UCL East academic programme, develop entrepreneurship programmes and incubation facilities, and to work with E20 partners to develop programmes to support SMEs in Stratford and the surrounding area.

Promote and embed an effective culture of innovation and knowledge exchange across UCL

► In recent years there has been significant expectation from successive UK governments that universities will increase their contribution to the innovation and economic systems of the UK.

For UCL this can be framed in terms of our commitment to change the world for the better, and in making an impact both societally and economically. To make even more of a difference, the culture of UCL needs to evolve, building on existing successes. We have put in place an appropriate environment of leadership, governance and recognition, together with systems and seed funding to support projects to their full potential. We are ensuring that more support for more people is available, and policies and procedures are appropriate. Upholding the values set out in UCL 2034 of being open, honest, transparent, ethical, professional and generous in our approach to partnership working is fundamental. And this will be evidenced as we grow our reputation for being an outstanding and reliable partner.

We will:

- Support and recognise UCL staff and students in their involvement with innovation activities, developing skills and rewarding success, and ensuring there are suitable governance mechanisms and policies to protect both participants and UCL.
- Develop the methods of working needed for effective and efficient operation, working towards the vision of excellent systems and processes in UCL 2034. This will include tools to support data management and the delivery of short courses across UCL, with emphasis on integration with other management information systems.
- Establish and grow cross-university assistance for innovation, such as proof of concept funding and project support, which enable the acceleration of UCL research outputs to impact and application.
- Develop a coherent, structured approach to the use of space and estate within UCL to enable and sustain innovation and enterprise: Proximity to Capability.
- Building on all our activities, develop a programme of engagement and communication across UCL to embed an understanding of our role and of the value of innovation, enterprise and entrepreneurship.

Contribute to the financial sustainability of the institution

► UCL 2034 recognises financing our ambitions as a key enabler in the delivery of this 20 year vision, including accessing new sources of income that generate a surplus to invest in UCL's student experience and estate. Together with UCL's wholly-owned subsidiary companies UCLB and UCLC, we will play a significant role in boosting UCL's finances, both through generating profits, and through supporting UCL's research assessment performance. We are also keen to develop innovative business models, exploring new ideas and approaches. Other research-intensive universities have developed income streams from academic-mission-driven businesses, such as publishing and examinations, which support their finances, and we believe UCL should explore 21st century opportunities appropriate to its outstanding research and education.

UCLB, UCL's technology transfer business, has an important role to play in the identification, development, protection and commercialisation of technologies emerging from UCL. The UCL Technology Fund was launched in 2016, through which £50m over five years will be invested in projects with commercial potential, funding early stage proof of concept, licensing projects and new spin-out companies. This exciting development is changing the technology transfer landscape at UCL. UCLC provides a vehicle for UCL academics to develop consultancy activity, and it also enables us to develop routes to commercialising some of our capabilities, including development of bespoke training, and to develop a clear position of UCL capability and competence for the wider world.

We will:

- Establish a common understanding of how UCL and UCLB can work together most effectively, optimising UCL interaction with business and the translation of UCL technologies and discoveries into application.
- Build on the visible success of UCLC, including developing new areas of business, to create greater benefit for UCL.
- Explore other opportunities for innovation and enterprise to contribute to UCL's financial sustainability in ways that fit the unique offer of UCL and, through this, to develop a comprehensive commercial strategy for UCL.

UCL Innovation and Enterprise: Who we are

UCL Innovation and Enterprise is a group of specialist teams working with staff and students to encourage a spirit of enterprise, create links with the outside world and accelerate UCL's innovation and impact.

Our work is at the heart of UCL's ambition to change the world for the better and it plays a vital part in our shared mission to tackle the great global challenges of our time. For us, it starts with the belief that we all have the potential to make a difference and that every one of us in the UCL community has a role to play and a contribution to make. We believe UCL's success comes from the knowledge and ideas of all of its people - academics and researchers, students and alumni, professional services and partners.

UCL Innovation and Enterprise is here to help people across the university transform their knowledge and ideas into action. We encourage people to recognise their potential; giving them the confidence to think differently, to step out and be brave. We are here to help share more of UCL's knowledge and understanding, in new ways and with wider communities both within and beyond the university. We are here to help bring more of UCL's ideas and discoveries to work in the real world.

We do this by connecting different talents and skills, drawing people together and harnessing UCL's diverse community to build teams that create momentum. We do

this by being open to a world of opportunity, reaching out beyond UCL's borders to organisations, causes and citizens, identifying needs and forging relationships. And we do this by sharing our experience to help create change, building structures and engineering processes that drive innovation.

UCL Innovation and Enterprise includes Business and Innovation Partnerships, Entrepreneurship, Commercial Strategy, Engagement and Communications, Planning, and Information and Project Management teams. We have two affiliated delivery partners that are wholly-owned subsidiary companies: UCL Business (UCLB), our technology transfer business, and UCL Consultants (UCLC), which facilitates academic consultancy.

In developing and delivering this strategy we will work closely with many people throughout UCL. In particular our Vice-Deans (Enterprise) from each Faculty, who bring an essential academic perspective to our work, acting as critical friends, and bringing insights and understanding from across the university.

UCL Innovation and Enterprise is in an exceptional position to support individuals and the university as a whole as they reach out to the wider world, seeking both to transform it and be transformed in turn.

ucl.ac.uk/enterprise

ucl.ac.uk/enterprise