Imperial College
London

STRATEGY
2015–2020
Imperial College London’s mission is to achieve enduring excellence in research and education in science, engineering, medicine and business for the benefit of society.

It is 2015 and we can be confident that in ten years the world will be quite different from today. International relations, social structures and trade patterns will alter. There will be new approaches to dealing with epidemics, shortages of natural resources and environmental crises. New challenges will arise.

Global research-driven universities like Imperial College London have a central role in helping humanity address these changes and challenges by making discoveries, educating leaders and developing innovations that benefit society. Yet these universities will need to change to contribute to this future. In our Strategy 2015–2020 we set out how Imperial will be a source of new solutions, a contributor to a better future, a trusted partner and a new paradigm of the global university.

Strong foundations for global challenges

We will support an atmosphere and culture that embraces discovery. We will continue to be guided by our mission of achieving enduring excellence in research and education in science, engineering, medicine and business for the benefit of society. We will shrink the time and distance between fundamental discovery and societal benefit. We will provide our students with the knowledge and experiences that equip them for their future roles as leaders. We will have the courage to take risks. We will remain true to our mission.

While we cannot envision all of the challenges ahead, we believe that Imperial can contribute by focusing our research around four themes: discovery and the natural world; engineering novel solutions; health and well-being; and leading the data revolution.
Through these themes, we have allowed ourselves to dream and pose ‘what if?’ questions that drive our sense of curiosity and adventure and motivate our work. These questions are drawn from existing, growing crises such as antimicrobial resistant bacteria, where there is an acute need for both research and public education. They are also drawn from other looming challenges such as the need for secure, sustainable water, energy and minerals; the impact of environmental and climate change; and the corrosion of materials in our vast, ageing civil infrastructure.

This is an extraordinary time to be part of Imperial. There is a need for our expertise. There is a growing ageing civil infrastructure. These questions are drawn from existing, growing crises such as antimicrobial resistant bacteria, where there is an acute need for both research and public education.

We have a tremendous asset in our highly successful alumni and friends. We will revitalise our relationship with them and encourage them to be a part of the Imperial College London of today and of the future. Their knowledge, expertise and experience will contribute to the intellectual power of the College.

Great partners: collaborations across boundaries

Across the world, people are recognising that the changes and challenges we face require us to work together more effectively. Universities must drive collaboration, work across disciplines and seize opportunities in ways and at a pace unusual for academia. It is the only way that we can solve the world’s challenges.

At Imperial we are good at working across disciplines and collaborating. In 2014, three-quarters of our research papers were collaborations with external co-authors from over 140 countries and 6,000 different universities, businesses and other research organisations.

Yet we can be even better and can lead in new areas. We will seek the very best from around the world, sometimes collaborating with our toughest competition in order to create an amazing team. We will ensure that our reward structures provide incentives for sharing, collaborating and building relationships. This means that we will recognise collaboration in our evaluations for promotions and awards and we will advocate to funders and evaluators to support collaborative work.

We will make all of our campuses into dynamic learning environments that can flourish. In White City we are creating opportunities in ways and at a pace unusual for academia. It is the only way that we can solve the world’s challenges.

Enablers: the way forward

As we embark on this era of change, we hope that each member of the College will seize this opportunity to advocate what we do, be agile and courageous with new ideas and seek out new collaborations. We expect great things of ourselves and of each other. We each have a role to play and contributions to make to Imperial’s future.

We will build the financial strength needed for our world-leading work through careful financial management and public, private and philanthropic support. We will make our own investments to pursue the new and the risky. We will support ideas that are potential breakthrough programmes that put us in a leadership position. We will place our bets even if the idea is ahead of its time and has not received outside funding. We will develop the talent we need to contribute in areas that have not yet been fully explored. And we will invite our friends and alumni to invest with us and be a part of these forefront ideas.
Our strategy is built on underpinning foundations that make Imperial a great academic institution and talented and inspirational people who make up our university community. Our partners make our work possible and help us to deliver benefit to society through our research and education. Enablers help us to deliver our strategy.
People

• We will build a supportive, inclusive and highly motivated staff community across all disciplines, functions and activities. This will help us to attract and retain the talented and diverse staff we need to achieve our mission.

• We will embed our educational experience in a vibrant, research-led, entrepreneurial environment. By learning alongside researchers who are experts in their fields our students gain the practical, entrepreneurial and intellectual skills to tackle societal problems.

• We will strengthen collaboration with business, academia, and non-profit, healthcare and government institutions across the globe. No university can achieve excellence or realise the full benefits of its work by itself.

• We will inform decision makers to influence policy. Our excellence, breadth of knowledge, connections and London location allow us to bring together and inform key decision makers in governments and industries for the benefit of society.

• We will share the wonder and importance of what we do. Collaboration with the public, schools and our local communities fosters a shared passion for and understanding of our work.

Enablers

• We will strengthen and diversify our revenues. Delivering our mission requires investment in our staff, students and facilities.

• We will provide professional support, consistent processes and appropriate technology for all of our staff and students. The pursuit of excellence in research and education requires excellence in all that we do.

• We will act courageously and innovatively when pursuing new opportunities. We need to take academic and financial risks to sustain excellence in research and education.

Foundations

• We will continue to specialise in science, engineering, medicine and business. This is the foundation on which we build our future.

• We will maintain world-class core academic disciplines. All research and education must be underpinned by a deep understanding of the fundamentals.

• We will encourage multidisciplinary research. Only by bringing together expertise from different disciplines can we solve today’s global challenges.

• We will build strong relationships with our alumni and friends. This lifelong exchange of ideas and support benefits all of us.

Partners

• We will strengthen collaboration with business, academia, and non-profit, healthcare and government institutions across the globe. No university can achieve excellence or realise the full benefits of its work by itself.

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Clockwise, from top left: Imperial’s Carbon Capture Pilot Plant is the world’s most sophisticated of its kind in an academic institution, providing a unique hands-on education experience • Dr Lou Balmer-Millar, Caterpillar’s Director of Research and Advanced Engineering, with Provost James Stirling, signing the agreement for the new Caterpillar Innovation & Research Centre, which will be based in the Department of Mechanical Engineering • Imperial’s Clinical Phenome Centre brings rapid molecular analysis to the hospital setting, and is funded by the National Institute for Health Research Imperial Biomedical Research Centre and industrial partners including Waters and Bruker • Members of the Dallman Lab, in the Department of Life Sciences, inspect zebrafish, which are being used to investigate inflammatory immune responses.
We will maintain world-class core academic disciplines

All research and education must be underpinned by a deep understanding of the fundamentals.

We have tremendous strength in the core disciplines practised by our academic departments. This was demonstrated in the 2014 Research Excellence Framework, an assessment of the quality of research in UK higher education institutions, in which over 90 per cent of the research submitted by Imperial was judged to be world-leading or internationally excellent. This excellence is broadly found across all our disciplines, and applies equally to our research outputs, impact and environment. These strengths provide us with the underpinning capability required to work together across disciplines in order to address global challenges.

**Actions in detail**

- We will continue to identify and support new emerging disciplines.
- While recognising that much of our strength in core disciplines derives from the nurturing of talent within the institution, we will be more proactive in identifying opportunities to recruit staff capable of enhancing the quality of our research and education.
- Where necessary, we will seek external advice to advance and sustain parity of excellence across all our core disciplines, a key factor for successful multidisciplinary research and education.

**Case study 01**

**Fundamental physics: searching for dark matter**

Dark matter is an invisible form of matter that physicists believe makes up about a quarter of the energy density of the universe. Its presence is inferred from its gravitational effects on visible matter, radiation, and the large-scale structure of the universe, but its existence has never been confirmed directly. Its composition is a mystery, leading to the intriguing possibility of hitherto undiscovered physics.

Scientists at Imperial are among those leading the search for dark matter using a variety of approaches. For example, the Large Underground Xenon experiment, located 1.5km underground in South Dakota, allows researchers to look for tiny and extremely rare flashes of light that would indicate a collision between a dark matter particle and a normal matter particle. Scientists also use the Large Hadron Collider at CERN to search for dark matter particles that might be produced in collisions within the particle accelerator. The precision measurements generated at CERN and elsewhere provide opportunities to look for the influence of dark matter, while researchers also examine cosmological data to understand the influence and properties of dark matter.

For Professor Jordan Nash, Head of the Department of Physics, the discovery of dark matter would help answer some of the most significant outstanding questions about the nature of our universe. As he notes, “Imperial researchers have real influence in and understanding of this fundamental science, thanks to our excellence across different academic disciplines and our ability to bring together teams working on these different searches.”
We will encourage multidisciplinary research

Only by bringing together expertise from different disciplines can we solve today’s global challenges.

The global challenges of today and the future are complex. We can only hope to address them through collaboration between disciplines and with partners. While we cannot anticipate all the challenges ahead, the College is well placed to contribute across four key areas: discovery and the natural world; engineering novel solutions; health and well-being; and leading the data revolution.

Lift this page to find out more about how we will meet each of these challenges.

**ACTIONS IN DETAIL**

- We will review and refocus our research programmes on a regular basis as global challenges emerge and evolve. We will promote a dynamic exchange of ideas and staff between our core disciplines and these multidisciplinary themes.

- We will develop multidisciplinary hubs at our White City Campus focused on global challenges starting with the Michael Uren Biomedical engineering research Hub. These hubs will be configured to encourage close team working and serendipitous encounters. The buildings will be designed to be adaptable so that new global challenges can be accommodated.

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**CASE STUDY 02**

The Michael Uren Biomedical Engineering Research Hub

In 2014, Imperial announced a gift of £40 million from Michael Uren OBE and his foundation. With this unprecedented sum, the College is constructing the Michael Uren Biomedical Engineering Research Hub at its White City Campus. This will house life-changing research into new and affordable medical technology, helping people affected by a diverse range of medical conditions.

When complete, the Hub will serve as a showcase for a vibrant, multidisciplinary approach to research and enterprise, both within the College and across the sector. Its design will allow Imperial’s world-class engineers, scientists and clinicians to work together in the new space and facilities alongside innovative spin-out companies. The Hub will also incorporate clinical areas, providing patients with direct access to innovations in healthcare. It will open up new opportunities for the College’s Institute for Biomedical Engineering, established in 2004, which is already renowned for its pioneering advances in medical technology achieved by drawing together expertise from across disciplinary boundaries.

Engineering expertise is increasingly important for addressing global health and well-being challenges, with the development of new devices and techniques helping to restore the quality of life of patients at a sustainable cost. Mr Uren said: “Today we have the opportunity to transcend the traditional boundaries between engineering and medicine, in a way that simply wasn’t possible when I joined Imperial in 1940. The discoveries made here will generate vast social, medical and economic benefits. I am thrilled that Imperial is leading the way.”
IMPERIAL’S core strengths and our emphasis on multidisciplinarity and collaboration mean that we are ideally placed to address some of the greatest challenges the world will face in the next five years. Four challenges that will shape our multidisciplinary research are outlined here, together with topical examples of ‘what if?’ questions that drive us to pursue the most challenging and difficult research and motivate us to work together in new and different ways.

**Global challenges**

**Discovery and the natural world**

**What if...**

...we could identify the unknown 95 per cent of the universe?
...we could quantify and mitigate the impact of environmental and climate change?
...we could deliver water, energy and minerals that are secure, sustainable and affordable?
...we could understand the physiological mechanisms which influence how humans make decisions about their needs and wants?

**WE AIM** to understand better the structure and evolution of the universe, and especially the part of it that we inhabit. Our core strengths in science and engineering provide a foundation for this curiosity-driven research and enable us to acquire knowledge and develop transformational technologies that can have profound societal impact.

**Engineering novel solutions**

**WE AIM** to drive innovation to create a more sustainable world for future generations.

We will build on our core strengths in engineering and science to advance understanding and develop technologies that will achieve this.

**Health and well-being**

**WE AIM** to improve the health of all in society in the UK and worldwide. This requires both the creation and improvement of treatments and prevention strategies, and the delivery of high quality, low cost, sustainable healthcare. We will work to create fundamental new insights into the way our genes and our environments interact, and use this knowledge to deliver individualised healthcare for every stage of life.

**Leading the data revolution**

**WE AIM** to harness the power of ever increasing amounts of data to transform how society thinks about and uses information. We will lead scholarly inquiry into the production, analysis, use and sharing of data and become the academic partner of choice for data science.

**What if...**

...we could measure everything?
...we could improve our understanding of natural laws through exploring new or large data sets?
...we could use data to make humans better decision makers?
...we could predict and avoid financial crises associated with overheating of the economy?

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We will build on our core strengths in engineering and science to advance understanding and develop technologies that will achieve this.
We will embed our educational experience in a vibrant, research-led, entrepreneurial environment

By learning alongside researchers who are experts in their fields our students gain the practical, entrepreneurial and intellectual skills to tackle societal problems.

The education we offer is shaped by our research and delivered in a learning environment that challenges our students to excel and broadens their horizons. The quality of an Imperial education is evidenced by the success of our graduates in employment both inside and outside academia. We aim to be a destination of choice for the most talented students from across the globe and to produce graduates who are the first choice for employers.

**ACTIONS IN DETAIL**

- We will develop an innovative, research-led curriculum that enables our students to engage actively with research in their disciplines and across disciplinary boundaries.
- We will provide opportunities for our students to develop and apply entrepreneurial and creative thinking.
- We will continually enhance our teaching. In particular, we will make timely and useful assessment and feedback a central part of our approach.
- We will be at the forefront of the development of new ways of learning, and will recognise staff who deliver excellence and innovation in education practice and student support.
- We will define a framework for excellence in research supervision and the qualities expected from supervisors.

**CASE STUDY 05**

Dyson School of Design Engineering

A donation of £12 million from the James Dyson Foundation has made possible the launch of the Dyson School of Design Engineering, which will educate a new generation of design engineers and technology leaders.

Its focus will be the fusion of design thinking with engineering thinking and practice, within a culture of innovation and enterprise. The School will offer an undergraduate MEng degree in Design Engineering from October 2015, using a curriculum developed with industry. The School will also offer Imperial’s existing postgraduate programmes in Innovation Design Engineering and Global Innovation Design, both run through a collaboration with the Royal College of Art which has spanned over 30 years.

Within the School, there is particular expertise in the fields of engineering product development; autonomous systems and manufacturing; industrial design; and human factors. What does this mean for students? An education grounded in the fundamentals of engineering science, with an accompanying emphasis on design thinking, creative problem-solving and management and communication skills. Students will also gain experience to support them in the workplace, with undergraduates undertaking a six-month industrial placement and developing entrepreneurial skills through a bespoke module.

For Sir James Dyson, speaking at the School’s launch, the breadth of skills that design engineers at Imperial will acquire is what will set them apart and allow them to tackle the societal challenges of the future. “We want to create engineers who are bold and commercially astute. They will use their skills, nurtured in the School, to develop future technology that will catalyse Britain’s economic growth.”
We will build a supportive, inclusive and highly motivated staff community across all disciplines, functions and activities. This will help us to attract and retain the talented and diverse staff we need to achieve our mission.

We need to harness our collective strength to deliver our mission. This requires a supportive and considerate community based on diversity, mutual respect and a commitment to excellence. The framework of Imperial Expectations guides the behaviour of all our staff.

**ACTIONS IN DETAIL**

- We will provide opportunities for staff to progress their careers at the College.
- We will create an environment which is respectful and collaborative and has a zero tolerance approach to bullying and harassment.
- We will share more broadly the impact and achievements of our staff across all disciplines, functions and activities so that their work and contribution to our mission is recognised and celebrated.
- We will be proactive in our promotion of inclusiveness and diversity.
- We will be mindful of the need to promote good mental health and a healthy work-life balance.

**CASE STUDY 04**

Athena SWAN

The Athena SWAN Charter was established in 2005 to encourage commitment to advancing the careers of women in science, technology, engineering, mathematics and medicine within the UK higher education and research sectors. Imperial’s work to promote the values of the Charter through the recruitment, retention and promotion of women has fostered a supportive culture which benefits the community as a whole.

Imperial was one of the founding members of the Athena SWAN Charter, and the College received an institutional Silver award in 2006 in recognition of its commitment to the Charter’s key principles. Since then, departments across the College have been recognised with awards ranging from Bronze to Gold as they have implemented initiatives designed to ensure a level playing field for all staff and a supportive work environment. Examples of initiatives that have contributed to the College’s success include an annual Athena SWAN Lecture at the School of Public Health and the appointment of a Tutor for Women in the Department of Materials, who has a remit to provide dedicated support for female researchers, postgraduate and undergraduate students.

The Department of Chemistry was awarded a Gold award in April 2013, one of only seven departments in the country to receive this accolade. Professor Tom Welton, speaking at the time of the award, emphasised the ongoing nature of the Athena SWAN process. “The Gold award not only recognises the progress that we are making in transforming the Department’s working environment, it also provides impetus to help drive the next phase forward.”
We will enrich the student experience

Providing a broad range of activities, services and support for our students beyond their studies helps them to develop wider talents and to be successful.

The services and experiences available to our students will be shaped by them through our partnership with Imperial College Union. We aim to provide a portfolio of inclusive activities and services to support and develop the breadth of talent in our student body and to celebrate the diversity of our students.

**ACTIONS IN DETAIL**

- We will recognise students as key stakeholders and consult them on the decisions that directly affect them.
- We will prioritise the mental well-being of the student body, recognising this as both a moral imperative and a prerequisite of academic success.
- We will work with employers and our network of alumni to prepare our students for their careers after graduation.
- We will continue to enhance our portfolio of student support services.
- We will engage students at all points of their time at Imperial so that they feel part of a prestigious community and become engaged alumni.

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**Imperial College Union societies**

Imperial College Union’s student activities programme provides students with hundreds of opportunities to learn new skills, make friends and broaden their horizons. The programme is an integral part of the student experience at the College.

With over 75 per cent of students joining one of Imperial’s 340 clubs and societies, thousands of students take part in activities from Kung Fu to knitting, and Drama Society to dodgeball. Engaging with activities allows students to build capabilities and support networks outside of academia that help them excel through their College journey and beyond. Involvement in activities is documented through Imperial Plus, a formal programme for recognising and celebrating the skills that students develop through their involvement in a wide range of volunteering roles inside and outside of the College community. Students reflect on the value of these skills and receive a certificate acknowledging the time they have invested. The recognition of the personal development that comes with participation in activities or leading clubs allows students to recognise and celebrate the links between this development and their employability and future successes.

Abi de Bruin, Imperial College Union Deputy President (Clubs & Societies) in 2014–15, notes the long-term impact that the Union’s support for student activities can have. “Student activities at Imperial are yet another way that our students achieve above and beyond the ordinary, developing skills that prepare them for life after College.”

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Number of nationalities represented among our undergraduate and postgraduate students in 2014–15

131

**NATIONALITIES**

Clockwise, from top left: Winners of a Dragons’ Den-style event, hosted by the Centre for Doctoral Training at Imperial’s Institute of Chemical Biology, where doctoral students pitched their business ideas to a panel of judges • Students in a 3D printing studio • Imperial’s Dennis ‘N’ Type fire engine • Rowers from the Imperial College Boat Club, one of the most successful student rowing clubs in the country • Students from the Imperial College Boat Club, one of the most successful student rowing clubs in the country.

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Imperial College London | Strategy 2015–2020

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We will build strong relationships with our alumni and friends

This lifelong exchange of ideas and support benefits all of us.

Imperial’s 170,000 alumni comprise a powerful global network. We count as friends many more people who share a common interest in our mission and support our work. Our alumni and friends are advocates for the College, role models for our students, employers of our graduates, and sources of support and inspiration for our academic work. We have a substantial opportunity to create a more vibrant and engaged community of alumni and friends which is motivated to contribute to and participate in Imperial’s continuing success.

ACTIONS IN DETAIL

• We will create a programme of services, activities and communications for our alumni and friends tailored to their experiences and interests.

• We will revitalise our relationship with our alumni and friends and seek their support in delivering our academic mission and building Imperial’s global reputation.

Imperial College Alumni Association of Hong Kong

With deep and strong links to Imperial, the Imperial College Alumni Association of Hong Kong is a powerful example of the benefits of mutual engagement.

Since 1982 the Association has organised a packed programme of activities for alumni living in Hong Kong, including departure drinks, guest speakers and social activities. It has hosted travelling Imperial academics and professional staff, including high-profile visits from College leadership.

The group also forges connections with Imperial’s Chinese and Hong Kong student communities through its flagship student mentoring scheme. The scheme allows students to continue their education beyond the core curriculum. Current students stood alongside the group at the 2015 Alumni Weekend, marking the first time an international alumni association had been represented at this annual event.

Peter Choy, Chairman of the Association in 2014-2015, affirms its role in strengthening Imperial’s international reputation and alumni community. “We aim to build a better and stronger network between alumni, students and university representatives, and we’re proud to be part of the Imperial community”, he says.
We will strengthen collaboration with business, academia, and non-profit, healthcare and government institutions across the globe.

No university can achieve excellence or realise the full benefits of its work by itself.

Collaboration with external partners is positively correlated with academic excellence; many of our most productive academics are also actively involved with external organisations. However, effective collaboration is resource-intensive. We must be rigorous in choosing new opportunities that are distinctive, beneficial to all partners, and characterised by a great working relationship.

**ACTIONS IN DETAIL**

- We will strengthen the support available to our College community to find appropriate partners and establish valuable collaborations, and underpin this through our ethical principles of engagement.
- We will recognise and reward collaboration as an essential part of our activities.
- We will focus on broadening participation in collaboration, particularly among groups in the College community with talent and potential but currently underrepresented in collaborative activities, such as early career academics and students.

**Case Study 07**

**Advanced Business Analytics collaboration with KPMG**

In 2014, the College launched a major collaboration with KPMG in the field of business analytics. The KPMG Centre for Advanced Business Analytics at Imperial brings together some of the world’s leading data scientists and business scholars with KPMG’s world-class professional service practitioners.

Business analytics is concerned with developing new methods for solving important problems in business. The Centre builds on the establishment of the Data Science Institute in 2013, which conducts research on the foundations of data science. The Centre has a dual focus on research and impact, developing theories, methods and technologies that have the potential to identify opportunities, risks or social change that affect business. The Centre’s emphasis on fostering engagement with government and industry will ensure that new methods can be subjected to early uses, thereby enhancing the relevance of its research.

Researchers work across five basic disciplines in business: economics, operations, organisation behaviour, marketing and strategy, and health management. Across all five areas, a unifying goal will be to help UK businesses gain a competitive edge in a global marketplace and to provide early indications of disruptive opportunities and threats in organisations and markets. Simon Collins, KPMG UK Chairman, commented, “Our collaboration with Imperial is about developing the people and skills to use that data to drive new industries and new services. It is immensely exciting for the UK economy and we are very proud to be leading in this crucial area.”

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64% of Imperial’s research publications in 2014 were co-authored with international collaborators.

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We will inform decision makers to influence policy

Our excellence, breadth of knowledge, global connections and London location allow us to bring together and inform key decision makers in governments and industries for the benefit of society.

Research undertaken at Imperial informs debates on the issues that matter to global society. Global collaborations and alumni around the world allow us to access key decision makers.

The density of world-class universities, teaching hospitals and scientific institutions in London makes it easier to build relationships with excellent partners.

**ACTIONS IN DETAIL**

- We will substantially increase our involvement in advising governments and industries on key policy areas such as science and innovation, education, health, energy and the environment, using alumni relationships, professional contacts and opportunities to bring key decision makers to the College.

- We will work with stakeholder groups including technology user groups, social networks and patient communities to help make our work relevant to the needs of society.

- We will be proactive in publicising examples, evidence and case studies from our research.

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**CASE STUDY 08**

**School of Public Health**

Global influenza pandemics during the twentieth century resulted in millions of deaths. Imperial research, which models the effects of intervention on the spread of pandemics, is helping to ensure that we see a very different pattern in the twenty-first century.

In 2009, the outbreak of the H1N1 pandemic (widely known as swine flu) led to Imperial academics working in collaboration with the World Health Organisation (WHO) and multiple national governments to collect data on the virus’ transmission and severity in real time. Their analysis of these data, which suggested that the pandemic’s severity was only moderate in comparison with previous pandemics, informed public policy decisions in the UK to pull back from use of economically costly interventions (such as reactive school closure) and focus on targeted use of vaccination. The research also informed pandemic planning in Europe and the USA and it continues to have a lasting impact, for example on the WHO guidance for Pandemic Influenza Risk Management (2013).

Overall, this research has not only enhanced policy makers’ understanding of pandemics, but has also given them the tools to manage public health crises and develop informed plans to minimise the health and economic impact of future pandemics.
We will share the wonder and importance of what we do

Collaboration with the public, schools and our local communities fosters a shared passion for and understanding of our work.

We are committed to inspiring the scientists, engineers and medical professionals of the future by raising aspirations and supporting learning across all age groups. Through harnessing the creativity and passion of Imperial’s people and engaging with our partners, we will create further opportunities to nurture the innate curiosity and desire to learn in the public and young people. Our actions will support a continued flow of diverse and talented students from across the world into the College, promote public engagement with science, and help our university to be sensitive to the interests and needs of the public and our local communities.

ACTIONS IN DETAIL

• We will create shared spaces for discovery and learning by working with schools and local communities.
• We will use digital technology to ensure that our research and education reaches a wide and varied audience.
• We will expand our reach to prospective students nationally and globally to inspire and attract the brightest students, regardless of their backgrounds.
• We will create a broad and collaborative outreach learning experience focused on global challenges and opportunities in science, engineering, and medicine.
• We will engage with and learn from the public, schools and local communities to improve our interactions with them.
• We will continue to deliver a wide range of events and activities for the public such as our annual festival and public lectures.

Imperial is supporting primary school teachers across the UK to inspire students about science through a continuing professional development resource. Launched in October 2014, Reach Out CPD is a web-based programme which provides teachers with resources and ideas to engage primary school children in the wonder of science.

Reach Out CPD, developed in partnership with science teaching resource Tigtag, features films of Imperial academics who shine a light on some of the latest advances in science and present imaginative ideas to bring science to life in the classroom. As a free programme, accessible online anywhere and at any time to all 200,000 primary teachers in the UK, it aims to remove the barriers of time and cost which are cited by teachers as challenges to participation in professional development.

According to Professor Maggie Dallman, Associate Provost (Academic Partnerships), schools, like universities, should be places where curiosity is sparked and nurtured. She adds, “At Imperial we have long been committed to stimulating engagement with science across society. Through Reach Out CPD we hope to provide a resource that will support primary teachers to do their work – if we can help give children scientific skills so they ask the right questions of society and make the right connections to solve problems, we will be making a very long term impact.”
We will strengthen and diversify our revenues

Delivering our mission requires investment in our staff, students and facilities.

Financial sustainability is essential to ensuring that we are able to maintain and develop a world-class research and education environment and have the flexibility to invest in the opportunities of our choice.

ACTIONS IN DETAIL

• We will dedicate over one-third of the space at our White City Campus to diversifying our income.
• We will seek philanthropic investment to strengthen our research and education.
• We will manage the College Endowment to generate a steady return and we will grow the number of endowed scholarships, professorships and chairs.

Enablers

CASE STUDY 10

Brevan Howard Centre for Financial Analysis

In 2014, Imperial College Business School established the Brevan Howard Centre for Financial Analysis thanks to a gift of £20.1 million, one of the most generous in UK business education history, from Brevan Howard, a leading hedge fund co-founded by Imperial alumnus Alan Howard (MEng, Chemical Engineering & Chemical Technology, 1986). Research at the Centre aims to help understand and prevent financial crises.

The Centre brings together academics, policy makers and practitioners, and is led by Professors Franklin Allen and Douglas Gale, two of the world’s foremost experts in financial contagion, market behaviour and risk. Research at the Centre is designed to support better policy-making in finance around the world. Initial research priorities include financial stability and regulation; financial structure; and the role of financial economics in non-profit activities.

At the Centre’s launch, Professor G. ’Anand’ Anandalingam, Dean of Imperial College Business School, noted that “Franklin Allen and Douglas Gale are genuine pioneers in our understanding of systemic risk, corporate governance and interbank liquidity.” Alan Howard, whose vision and support made the Centre possible, said: “It is a pleasure to support my alma mater in this way, and an honour to be able to contribute to Imperial’s continued excellence.”
We will provide professional support, consistent processes and appropriate technology for all of our staff and students.

The pursuit of excellence in research and education requires excellence in all that we do.

Everyone in the university, irrespective of discipline, function or activity, has a role to play in helping Imperial to deliver its mission. Excellent research and education must be underpinned by a professional team focused on ensuring that our academics and students have the time, support and resources they need to deliver their very best.

**ACTIONS IN DETAIL**

- **We will promote a culture where all who show a commitment to excellence are recognised and given respect, whatever their role or field.**
- **We will empower staff at all levels to deliver change for the better.**
- **We will design and implement consistent processes which minimise time wasted, support academic excellence and encourage collaboration.**
- **We will continue to invest in the technology needed to support our mission.**
- **We will achieve the highest standards of safety.**
We will act courageously and innovatively when pursuing new opportunities

We need to take academic and financial risks to sustain excellence in research and education.

As the frontiers of knowledge cannot be predicted, agility and flexibility are integral attributes for success. This means that Imperial must take risks: academic risk through starting new areas of research, before we know whether funding or acclaim will follow; and financial risk, in order to achieve the returns we need to fund our mission.

ACTIONS IN DETAIL

- We will adjust our processes so that we can make swift informed decisions to seize opportunities and both start and stop new initiatives.
- We will invest funds to pursue the new and risky.
- We will support ideas which are potential breakthrough programmes that put us in a leadership position, even if these ideas have not yet received outside funding.

CASE STUDY 12

A new campus at White City

Since 2009, the College has purchased nearly 25 acres of land in White City. White City Campus provides the College with the opportunity to achieve its ambitions and do things differently: develop new partnerships, support new areas of research, diversify revenue streams and give students entrepreneurial experiences. It allows the College to unlock exciting areas for refurbishment and provide options for much-needed academic space.

Over the next 15 years, the College will create an innovation district at White City, which will bring together the College’s academic community, businesses, entrepreneurs and academic partners to address global challenges as well as creating high-quality jobs and economic growth.

In close proximity to Hammersmith Hospital, the northern section of White City Campus will locate multidisciplinary activity focused on health and wellbeing. Academic hubs will foster research in molecular sciences, biomedical engineering and public health. A Translation and Innovation Hub will co-locate laboratories with major technology partners, new start-ups and fast-growth technology companies. Master-planning is underway for the rest of the site, with plans including further hubs for academic research, education and translation, community and commercial facilities, and housing.
What does excellence look like?

Implementing this strategy will allow us to sustain and renew the areas in which we are already excellent, and help us to achieve excellence in the areas in which we have the opportunity to improve.

We will review on an annual basis our progress towards achieving these markers of excellence.

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<tr>
<th>Foundations</th>
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<td>We will maintain world-class core academic disciplines.</td>
<td>• We are consistently rated in the top three in the UK and the top ten in the world in all disciplines.</td>
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<td>We will encourage multidisciplinary research.</td>
<td>• Our multidisciplinary work leads to breakthrough advances in global challenge areas.</td>
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<td>We will embed our educational experience in a vibrant, research-led, entrepreneurial environment.</td>
<td>• All of our students are given the opportunity to engage with research and researchers as part of their studies.</td>
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<th>People</th>
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<td>We will build a supportive, inclusive and highly motivated staff community across all disciplines, functions and activities.</td>
<td>• Staff surveys show that our staff feel they are part of a supportive, inclusive and highly motivated community across all disciplines, functions and activities.</td>
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<tr>
<td>We will enrich the student experience.</td>
<td>• We are rated in the top quartile of key national student experience surveys.</td>
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<td>We will build strong relationships with our alumni and friends.</td>
<td>• We have a large, motivated and engaged community of alumni and friends attending events, volunteering and supporting the College.</td>
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<td>We will strengthen collaboration with business, academia, and non-profit, healthcare and government institutions across the globe.</td>
<td>• We are regarded as the partner of choice across sectors.</td>
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<tr>
<td>We will inform decision makers to influence policy.</td>
<td>• Our influence is evident and recognised through citations from government, corporate and medical decision makers.</td>
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<tr>
<td>We will share the wonder and importance of what we do.</td>
<td>• People of all ages and backgrounds regard Imperial as a reliable resource for scientific learning and understanding.</td>
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<td>• Our financial position gives us the flexibility to invest in research and education opportunities as they emerge, irrespective of the external environment.</td>
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<td>We will provide professional support, consistent processes and appropriate technology for all of our staff and students.</td>
<td>• Academic staff spend no more than ten per cent of their time on administrative activities.</td>
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<td>We will act courageously and innovatively when pursuing new opportunities.</td>
<td>• We have launched initiatives which have subsequently led to outside support.</td>
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