

Institution: University of Cambridge

## 1, 2. Context and mission; Strategy

The mission of the University of Cambridge is to contribute to society through the pursuit of education, learning and research at the highest international standards of excellence. This mission underpins its research culture and articulates its commitment to academic freedom.

The University's strategic goals are designed to ensure it is well-placed to strengthen its position as:

- an extraordinary University, charting its own course to shape and significantly advance many fields of research, and to be seen to be a global leader in interdisciplinary discovery and innovation with wide social, cultural and economic impact;
- an extraordinarily rigorous and educationally innovative University, increasingly open to talented students from all backgrounds and;
- a contributor to society in extraordinary and globally recognized ways, working creatively to address fundamental issues facing humanity.

Our research strategy is the result of the fusion of bottom-up initiatives originating in departments and faculties and top-down strategic themes driven by high-level University priorities, based on the 10-year academic visions of the Schools and a range of research initiatives.

The University's democratic foundations have evolved over 800 years. The institution is highly devolved. This is reflected in a culture, governance and administration which combines strategic coordination and academic freedom, which nurtures flair and imagination. The University fosters an entrepreneurial culture which provides academics with the support to carry out the highest quality curiosity-driven research and to fulfil its translational potential.

The University's broad-based, consultative approach ensures that research undergoes appropriate scrutiny at many levels. The University is governed through central bodies, chiefly the Council and the General Board of the Faculties. The Council is the principal executive and policy-making body. The General Board has responsibility for the University's research and education functions and policies. The Research Policy Committee of the General Board helps define research strategy, advises on strategic research matters and is responsible for interdisciplinary research initiatives that cross administrative boundaries. The University's governance structure is underpinned by its governing body, Regent House (currently c. 6,000 members).



The Collegiate University includes the University and its 31 colleges, with the wider University encompassing Cambridge Assessment and Cambridge University Press (CUP). The colleges make a vital contribution to Cambridge's cultural and intellectual fabric and help foster interdisciplinarity. Colleges actively promote research, notably through the appointment of Junior Research Fellows and by providing affiliation to an increasing number of postdoctoral researchers.

## Research at Cambridge

The scale of research endeavour is illustrated by the fact in 2019-2020 there were more than 3,000 research-independent staff in over 100 departments and faculties, across six Schools, and seven Non-School Institutions working on over 5,920 funded projects, attracting £447M in funding and contributing to an overall research income of £579M.

The University encourages initiatives that broaden the research base and generate significant impact. These fall, primarily, into three categories:

- Academic-led research centres in areas where consolidating existing strengths achieves
  outcomes greater than the sum of their parts: e.g. the Centre for Research in the Arts,
  Social Sciences and Humanities (CRASSH); the Centre for the Study of Existential Risk
  and the Leverhulme Centre for the Future of Intelligence.
- Initiatives that consolidate specialist research, e.g. the Stem Cell Institute, the Gurdon Institute, the network of activities in cancer research (including the CRUK Cambridge Institute, the CRUK Major Centre and the planned Cancer Research Hospital).
- Initiatives that enhance impact and provide an interface with other sectors, e.g. the
  Milner Therapeutics Consortium: an alliance with the pharmaceutical industry to engage
  in pre-competitive research; the Crop Sciences Centre: an alliance for improving the
  sustainability and equity of global food production (discussed in detail in Impact section).

In 2015 the University established a programme of Strategic Research Reviews, which appraised the structures and strategies supporting research. The reviews engaged international academic panels to identify opportunities for structural and strategic change, and measures to improve and sustain research culture. They informed the University's future strategic direction by helping to identify sustainable areas of research with exceptional intellectual, societal, scientific and global potential.

#### **Interdisciplinary Research**

The University proactively funds interdisciplinary research through twelve Interdisciplinary Research Centres (IRCs), three Strategic Research Initiatives (SRIs) and four Strategic



Research Networks (SRNs) in areas as diverse as Language Sciences, Synthetic Biology, Reproduction, Conservation and Digital Humanities.

The initiatives aim to address large-scale multi-disciplinary research challenges; strengthen research collaborations and facilitate knowledge transfer across disciplines. They increase research capacity and profile: providing a platform for large-scale funding applications, recruitments and international research partnerships, enhancing the University's ability to influence national and international research, policy and funding agendas. Examples of achievements include:

- The Cardiovascular IRC was instrumental in developing a five-year plan for cardiovascular research in Cambridge with Papworth Hospital.
- The Cambridge Centre for Data-Driven Discovery IRC is a focus for big data and AI and is key to the relationship with the Alan Turing Institute.
- The Energy Transitions IRC coordinates the University's participation in the Henry Royce Institute for Materials and was instrumental in the creation of C4T in Singapore, the University's first major overseas research laboratory.
- The Global Food Security IRC was key to the award of the GCRF-funded project TIGR2ESS (£8M), as well as participation in the EU Food Knowledge Innovation Community.

The University is involved in national initiatives including:

- a founder member of the Alan Turing Institute;
- a spoke of the Henry Royce Institute for advanced materials research and innovation;
- a founding partner in the Rosalind Franklin Institute;
- a substantive site of Health Data Research UK;
- a centre of the UK Dementia Research Institute.

# International relationships

The University's international engagement is underpinned by the principles set out in Towards an International Strategy (overseen by the Strategic Partnerships Office). The strategy does not aim to dictate where or with whom international activities take place: it articulates principles, high level goals, the opportunities and challenges associated with these goals, and the enablers for engagement. The main goals are: to extend impact and contribute to global public good,



generate and contribute to globally leading research, compete globally to recruit the best students and ensure that we have a global voice and influence.

## Highlights are:

- The Cambridge-Africa Programme supports research in Africa, on African priorities, by Africans. It harnesses Cambridge's expertise, resources and influence to co-create interdisciplinary initiatives for high impact collaborative research. It has supported activities with partners and students in 18 sub-Saharan African countries and has attracted funding from sponsors including the Alborada Trust, the Carnegie Corporation and the Wellcome Trust.
- The University has strong partnerships in India, from Government Ministries to individual research institutes. Collaborations cover areas as diverse as: engineering and technology, medicine and therapeutics, plant and crop science, education and child development and South Asian studies.
- The Cambridge Centre for Advanced Research and Education (CARES) is a University company created to facilitate research in Singapore. The main project, C4T, focuses on reducing Singapore's carbon footprint: bringing together researchers from chemical engineering, biotechnology, chemistry, biochemistry, engineering and materials science. It is funded by the Singapore government (c.£47M to date).
- The University's collaboration with Ludwig-Maximilians-Universität München funds joint cross-disciplinary projects: from the humanities and social sciences through to medicine.
- The University hosts the DAAD Research Hub for German Studies. Funded through the German Academic Exchange Service over ten years, the Hub involves scholars working on Germany and German culture across multiple disciplines in the arts, humanities and social sciences.
- Cambridge and Tsinghua University have established the Cambridge Tsinghua Joint Research Initiative Fund to strengthen research collaborations. This reflects the commitment to work together on addressing global challenges, such as climate change, food security and infectious diseases. They also collaborate via the recently formed Global Alliance of Universities on Climate (GUAC).
- A new research centre, Cambridge University Nanjing Centre of Technology and Innovation, has been established in partnership with the Nanjing Municipal Government, China.



The University's international presence is strengthened by the reach of both CUP (the second-largest university press in the world, with a global sales presence and offices in more than 40 countries) and Cambridge Assessment, one of the largest international assessment agencies, delivering assessments to more than 8 million learners in over 170 countries.

## **Open Research**

The University proactively promotes the open research agenda. We were the first UK university to publish a position statement on Open Research, our staff sit on national steering groups and we contributed to the UK Concordat on Open Research Data. Open Research is integrated into the University's policy and governance with, for example, an Open Research Steering Committee and linked task groups steering the implementation of DORA. We have a strong Data Champions network programme whose members advocate for, and train, researchers in open data approaches. Since 2017 all PhD theses are required to be open access.

Our commitment is supported by Apollo, our open access repository. We contribute to the leadership of the open infrastructure community through involvement in DuraSpace, arXiv and ORCID, and to the national agenda through collaborative external projects (e.g. JISC research data pilots, pilot integration of the JISC Publications Router) and innovation (e.g. open access fast-track repository deposit tools).

The Library and CUP are working together on the future roadmap for open research infrastructure at Cambridge. A forthcoming Research and Publish deal will enable all Cambridge research to be published in CUP journals open access for free.

#### **Research Integrity**

The University is strongly committed to upholding the principles of the Concordat to Support Research Integrity. Policies, guidance and contacts are maintained on a central research integrity website. Training is provided to graduate students and academics at all career stages, complementing local specialised training provision. The University plays a leading role in fostering a culture of integrity activities through the Russell Group, UUK Research Integrity Forum and League of European Research Universities.

Our current focus is to widen and strengthen the support available to researchers, and the development of more rigorous systems for identifying and tackling challenges within our research culture. This includes increased training provision, the formation of a Research Integrity Advisory Panel to provide expert discipline-specific advice and support and the implementation of a research integrity audit and review process to promote integrity and share best practice.



## **Support for impact**

The University aims to embed impact throughout its research culture. Our Impact Strategy encourages both innovation in delivering impact and best practice. The University supports impact at all levels and recognises achievement through the annual Vice Chancellor's Impact Awards (introduced in 2016).

The University holds Impact Acceleration grants from EPSRC, ESRC, BBSRC and STFC as well as MRC Confidence in Concept and a HEIF-funded Arts and Humanities Impact Fund, which currently have a total value of around £2M per annum. We have established successful impact support schemes which support a portfolio of knowledge exchange and commercialisation projects, creating social and economic impact. The EPSRC IAA has levered an additional £4 of external funding for every £1 of EPSRC funding. The Knowledge Exchange Network is a community of practice for knowledge exchange and impact professionals across the University, with over 120 members. The Network meets monthly to facilitate best practice, cross-disciplinary collaborations and external engagement.

The University aims to build links between communities spanning all stages of the impact pathway. To take one example, that of Plant Sciences. Underpinned by the herbarium collection, including Darwin's seed collection, the Botanic Garden and the concentration of expertise in the Sainsbury Laboratory and the Department, the University is developing a new initiative catalysing innovation in agriculture in collaboration with the National Institute of Agricultural Botany. The Cambridge Centre for Crop Science (3CS) is purpose-built, and a recently-endowed Chair was appointed to lead the project. This work will link into our regional activities through Agri-Tech East, and globally through our collaborations in India.

#### **Commercial impact**

The University is at the heart of the Cambridge Cluster: more than 5,000 knowledge-intensive firms, employing more than 61,000 people and generating more than £15.5Bn in turnover. The Cluster has produced 18 unicorns (\$1Bn businesses), including ARM, Aveva, CAT and Solexa. It brings together extraordinary research, a huge range of entrepreneurial skills and knowledge, flexible working spaces, a well-funded investment community and access to IP expertise. To deliver the local Industrial Strategy, the University has created a dedicated Inward Investment Agency.

The University is actively delivering on sector challenges e.g. through the Transforming Construction Alliance (£72M from the Industrial Strategy Challenge Fund). The University also plays a key role in the clean growth sector through the Faraday Institution: in 2018 Cambridge received £11.9M to research how to extend the battery life of electric vehicles. Academics are working in collaboration with ARM on the Security by Design Challenge, exploring how to



overcome market failures and radically update the foundations of digital computing infrastructure.

The University supports commercializing impact by:

- a) raising awareness and providing training for researchers:
- Cambridge University Entrepreneurs have awarded £600,000 in prize money to start-ups which have subsequently attracted over £250M in investment;
- Entrepreneurial Postdocs of Cambridge links postdocs from across the University with the Judge Business School (JBS) and Cambridge Enterprise, the University's commercialisation arm;
- The Cambridge Social Ventures fund, which has supported over 100 ventures and raised over £20M in investment, as well as providing training and mentoring.
- b) developing partnerships with industry and building environments to encourage collaboration between commercial and University researchers:

A notable example is the Maxwell Centre (a £26M development) which co-locates researchers in physical sciences and engineering and resident companies (including ARM, NPL, Magna, Talga, Beko and Sorex Sensors). It also hosts the Cambridge spokes of the Royce Institute and the Faraday Institution and is the hub for EPSRC-remit Centres for Doctoral Training. It provides flexible facilities for supporting research collaborations and partnership building between the University and industrial research.

- c) **linking researchers to commercial and entrepreneurial networks:** The Cambridge Institute for Sustainability Leadership engages researcher insight to develop industry leaders with understanding of the social and environmental context of their businesses.
- d) **providing investment:** Cambridge Enterprise provides support to researchers carrying out consultancy, licensing IP or starting spin out companies. Seed Fund and follow-on funding is available through Cambridge Innovation Capital (with £125M of funds). Recent successes include X01 a new anticoagulant sold to Janssen Pharmaceuticals.
- The University is a member of the £40M Project Apollo Collaborative Investment Fund (with Imperial College, University College London, AZ, GSK and Johnson and Johnson) for the development of novel therapeutics.

# **Policy impact**

The University supports its researchers in their contributions to policy discussions by:



## a) convening discussions across local authority, government and NGO sectors

- The University hosts a number of initiatives to bring together researchers to generate and contribute evidence to key policy debates. These include:
  - The Bennett Institute for Public Policy, which works towards rethinking public policy in an era of turbulence and growing inequality, linking research in technology and science with the economic and political dimensions of policymaking.
  - Cambridge Zero a new, ambitious initiative on climate change, aiming for a carbon zero future. It connects researchers across the University, joining up their research and policy expertise. Through Cambridge Zero, Cambridge engages in collaboration with many other organisations nationally and internationally, including the newly established Global Universities Alliance on Climate.
  - ➤ The Health Improvement Studies Institute (THIS) a £40M collaboration between the Health Foundation and the University to improve the evidence base and the use of evidence-based policy in healthcare. THIS works directly with NHS patients and staff, academics and the public and uses innovative methods such as citizen science to deliver large-scale research projects.
  - The Centre for Digital Built Britain drives and supports the integration and expansion of digital innovation in the built environment and informs policy.

## b) embedding policy organisations within the University

The Cambridge Conservation Initiative is a collaboration between the University and nine leading internationally-focused biodiversity conservation organisations. The opening of the David Attenborough Building in 2016 brought practitioners, policy-makers, fundraisers and researchers together under one roof, fostering collaboration and learning.

# c) providing professional development and contributing to national discussions

The Centre for Science and Policy (CSaP) pioneers a unique convening model of two-way policy maker engagement, organising programmes including one-to one-meetings between policy makers and academics. The Policy Fellowship Scheme has convened over 10,000 meetings with academics for over 400 policy fellows from the majority of Whitehall departments, the devolved administrations and national and international NGOs. CSaP runs a Policy Leaders Programme, primarily for Directors General and Permanent Secretaries of UK government departments and provides focused professional development to the UK Civil Service to encourage the use of evidence in policy development.



# Social and cultural impact

The University's social and cultural impact is broad and deep: ranging from researcher-museum collaborations which have changed curatorial practice and collections' strategy to the wider impact of the University on the interplay between science and society.

The University supports its researchers to have an impact on society and culture through mechanisms such as:

#### Public Activities and Outreach

The University runs an extensive public engagement programme, underpinned by training and support that enables academics to design impact driven, relevant, collaborative and consultative public engagement. The range of public engagement projects undertaken is international, extensive and diverse.

Through the Cambridge Science Festival, the Festival of Ideas and Open Cambridge we share our research, collections and buildings with our local community. In 2019, the festivals included over 700 public events and more than 100,000 interactions between the public and over 1,500 researchers.

The University of Cambridge Museums (UCM) is the highest concentration of internationally-important collections outside London, with more than five million works of art, artefacts and specimens. UCM comprises the Fitzwilliam Museum; Kettle's Yard; the Botanic Garden and the embedded museums: Archaeology and Anthropology, Classical Archaeology, Zoology, the Polar Museum, the Sedgwick Museum of Earth Sciences and the Whipple Museum of the History of Science. Investment of £15.1M in Kettle's Yard and the Museum of Zoology has created dedicated research spaces, learning labs and new gallery spaces, facilitating engagement between researchers and the community. Welcoming over 6,500 research visitors annually, UCM represents a unique part of the University's research ecosystem where academic researchers, practitioners and audiences create impact together.

UCM provides an 'open door' to much of the University's research. For many of UCM's annual 1.4M local and international visitors, their time in the museums is their first interaction with the University. Long-running mutually-beneficial collaborations with communities and service providers foster equality of access, enabling the collections and research to generate significant impacts on health and wellbeing, social inequality, creativity and public engagement. Targeted programmes, reaching over 40,000 school children and young people annually, widen participation and raise aspiration and attainment.



# 3. People

Through our People Strategy and human resources policies we aim to be a leader in fostering equality, diversity, inclusion, collegiality and a sense of belonging for all our staff. The People Strategy supports freedom of thought and expression and freedom from discrimination. It aims to ensure that the University is an employer of choice with a culture, policies and procedures that set high expectations.

The University is advancing its major programme to continuously improve our research culture. In 2019 we signed the Researcher Development Concordat, which drives improvements in the environment for research staff. Work on institutional research culture connects with work on Athena Swan, Race Equality Charter, Open Science and DORA to create a positive culture of support for all those involved in research, from PhD students to Professors. Our ambitions focus on an open and collaborative research environment; recognition and reward; creating a safe and supportive environment; supporting professional and career development and wider work with the sector.

Our Breaking the Silence campaign (launched in 2016) offers support for individuals who have experienced, or are affected by, sexual misconduct and harassment, contributing to a culture of zero tolerance. The remit of this campaign is being expanded to encompass all forms of inappropriate behaviour, including bullying, harassment, discrimination, or sexual misconduct. The current Dignity @ Work Policy provides a framework for all members to treat each other with respect, courtesy and consideration.

We have invested extensively in developing support systems for different career stages including a varied Personal and Professional Development programme, a comprehensive Careers Service and sspecialist mental health support through a University Counselling Service. The staff wellbeing strategy delivers a number of initiatives, including an annual Festival of Wellbeing, and manages and facilitates a Wellbeing Advocates' network drawn from all levels of the University.

Attracting and recruiting a diverse range of employees is fundamental to an inclusive culture. The University is committed to a pro-active and inclusive approach to recruitment and retention. To support this, a framework has been developed to assist institutions in embedding the principles of diverse recruitment into all selection phases.

Reviews at the University are structured under the Staff Review and Development Scheme for Academic Staff and the Career Management Review process. The Senior Academic Promotions CV Scheme provides dedicated support for academics with protected characteristics.



# Support for PhD students

The University currently hosts 12 **DTPs and** CDTs. The doctoral completion rate for the REF period is 75%. There are several support schemes to enable outstanding applicants to take up their place at the University. These include the prestigious Gates Cambridge Scholarships and the newly established Harding Distinguished Postgraduate Scholars Programme, both made possible by philanthropy, and the Cambridge Commonwealth, European & International Trust. The Disability Resource Centre provides assistance for prospective applicants, students with disabilities and staff who support them.

The University supports broad, transferrable skillset training and good research practice through its Researcher Development Programme, Guidelines on Good Research Practice, and the Good Research Practice Checklist.

The University's Wellbeing Strategy and Policy includes a comprehensive information framework and clear pathways of contact for additional assistance, including the Counselling Service. This provision is reinforced by pastoral support from the colleges and independent confidential support through the Students' Unions' Advice service.

# **Support for postdoctoral researchers**

In 2014 the University launched the Office of Postdoctoral Affairs (now the Postdoc Academy) to support the (then) 3,200 postdocs (now over 4,000). Three Centres were established, providing free access to communal space, meeting rooms and facilities. The Academy offers: advice and pastoral care; community-building activities; advocacy and representation; liaison with employers and international partners; one-to-one appointments and bespoke leadership and communication courses (together with the Careers' Service).

The Academy takes a leadership role in coordinating with other services, providing joined-up communication platforms, addressing gaps in provision (e.g. enhancing induction and mentoring). It is a focal liaison point for work with other HEIs and policymakers, notably on the Researcher Development Concordat. The University (with colleagues from Imperial) initiated a group now known as Researchers 14, which shares good practice in research staff development in order to develop national strategic objectives.

Recognising that Cambridge is a very expensive place to live, the University has invested over £350M to date in a new sustainable community in the north west of the city, Eddington. Phase 1 of the project provides over 700 homes for qualifying staff, as well as rooms for 300 postgraduate students. Eddington has a community centre, a large nursery and the University Primary School.



# **Equality and Diversity**

The University fosters an environment that values diversity and promotes inclusivity, as evidenced by the institution's Silver Athena Swan award, renewed in 2018. This commitment to gender equality is further supported by WiSETI, an initiative championing and supporting women from undergraduate to professor in the STEMM subject areas. The University is committed to strengthening equality and inclusion for all protected groups. In 2019 we received Advance HE's Race Equality Charter Bronze Award, which recognised the institution's comprehensive action plan to address issues faced by BAME students and staff. Initiatives from this action plan include a reverse mentoring scheme, with participants from the highest level of the University, the development of an active BAME network and analysis of the experiences of BAME researchers.

The University's Equality Champions provide senior leadership and support for initiatives, supported by local School-level champions. This complements networks for staff with protected characteristics, e.g. the Women's Staff Network, the LGBT+ Staff Network and the BAME Staff Network.

Supporting staff with caring responsibilities is a key priority for the University. We have established a Supporting Parents and Carers at Cambridge network to give opportunities for networking and information sharing to staff. The University has also introduced emergency dependant leave, for instances of unexpected disruption in childcare or other arrangements, providing paid leave of up to 5 working days in any rolling 12-month period.

The Returning Carers Scheme supports individuals affected by periods of leave for caring responsibilities. The University has launched a new initiative with My Family Care which gives employees access to a network of child, adult and eldercare at short notice. The University also runs a Workplace Nurseries' Salary Exchange Scheme for its three workplace nurseries. Planning for a fourth nursery is far advanced.



## 4. Income, infrastructure and facilities

#### Research income

The University has been successful at attracting funding from a diverse portfolio of sources. Research income grew from £397M in 2014-15 to £571M in 2019-20. Funding sources can be loosely grouped into four categories: UKRI and charities; EU and Overseas; industry and donations. The University's Research Office provides support for contracts, due diligence, restricted calls and strategic development. Additional support is provided through departments and Schools for researchers applying to peer reviewed external funding competitions. This includes: advice from research facilitators, grant writing support, and financial support for grant preparation.

Cambridge has developed numerous important research collaborations with institutions in the EU since 2014. In this period we have held 220 grants from the European Research Council and 558 awards from other EU schemes.

## **Industry**

The University delivers impact at scale through long-term partnerships with industry. Collaboration focuses on three areas: research and innovation, talent and services.

- The University collaborates with partners from the breadth of industry sectors including
  the life sciences, energy, digital, advanced manufacturing, agri-tech and creative
  industries. One example is the partnership developed with Astra Zeneca (AZ). In 2016,
  Cambridge was selected as the location for the company's global headquarters and the
  collaboration now delivers more than 100 active research projects and funds over 70
  PhD students across 23 departments.
- Cambridge collaborates with companies to develop the next generation of leaders and innovators: for example, training in partnership with pharmaceutical companies provides doctors and clinical researchers with the capabilities needed to run clinical trials; data science focused training forms a component of our partnerships with a range of companies, including Aviva.
- Industry partnerships support the exchange of services: for example, licensing a particular technology or research tool, access to laboratories and equipment. Funding from Nokia Bell Labs supports the Centre for Mobile, Wearable Systems and Augmented Intelligence. This aims to harness advances in mobile systems, security, new materials and AI to underpin a new generation of technologies: from how to combine inputs from multiple sensors to gaining a better understanding of interaction with these devices.



# Philanthropy

The University receives benefactions and donations from trusts and foundations, corporations and individuals. Recent notable gifts include:

- £100M from the David and Claudia Harding Foundation to help attract the most talented postgraduate and undergraduate students from the UK and around the world.
- the founding gift to establish the Bennett Institute for Public Policy, which conducts highlevel academic and policy research;
- the founding gift to establish the Jeffrey Cheah Biomedical Centre at the Biomedical Campus.

The £2Bn Dear World, Yours Cambridge campaign has delivered £1.7Bn in commitments.

#### Infrastructure and facilities

Cambridge's research infrastructure comprises more than 300 buildings and nine museums (including the Botanic Garden), with an overall estate of more than 700,000m². In this REF period the University has made infrastructural investments of c. £900M. These include new departmental buildings for Chemical Engineering and Biotechnology (£60M) and for Materials Science and Metallurgy (£48M), the Chemistry of Health building (£24M) and £49M towards the £94M Jeffrey Cheah Biomedical Centre. The University's most ambitious project is building the Ray Dolby Centre, the centre-piece of the new Cavendish III laboratory (c.£300M), which will include a ground-breaking National Facility for Physics. The funding includes a £85M gift from the estate of Ray Dolby (an alumnus) and £75M from the Government.

The University has invested in excess of £160M in renewing and replacing its bio-facilities. Part of the Anne McLaren Laboratory is presently being used to house a COVID testing facility created jointly with AZ and GSK, which has carried out over 2 million tests, contributing to the national Lighthouse network.

The University has been very successful at winning awards for capital projects from the UK Research Partnership Investment Fund (RPIF) including the Maxwell Centre, the Jeffrey Cheah Biomedical Centre, the Chemistry of Health Building, the Crop Science Centre and the Heart & Lung Research Institute.

There has been significant development on the Cambridge Biomedical Campus, the largest concentration of biomedical research facilities in Europe, which combines world-class research, patient care and education on a single site. The site includes Cambridge University Hospitals, the MRC Laboratory for Molecular Biology and AstraZeneca's corporate headquarters and global R&D Centre (opening in 2021). The new Royal Papworth Hospital, opened in 2019, is a



national centre for cardiovascular medicine. Funding from the British Heart Foundation and an RPIF award are enabling the University to build an associated Heart & Lung Research Institute (due to open in 2022). The University has made a major upgrade of its imaging facilities on the Biomedical Campus facilitated by MRC funding.

In this REF period the University has incorporated four MRC units (Mitochondrial Biology, Biostatistics, Cognition and Brain Science, Toxicology). The University has strategic partnerships with the Babraham and Sanger Institutes and the European Bioinformatics Institute.

The University has further developed its science and technology campus to the west of the city, which brings together much of the engineering and physical sciences. This includes the departments of Chemical Engineering and Biotechnology and Materials Science and Metallurgy, the Civil Engineering Building and the Maxwell Centre. The Cambridge Service for Data Driven Discovery (CSD3) hosts over £25M of cutting edge HPC equipment and provides one of the most powerful HPC systems in the UK (combining high performance simulation AI, and data analytics capabilities for data intensive workloads) to large and diverse user communities, spanning a wide range of EPSRC, STFC, MRC, NERC and charity-funded domains.

The University Library is both a UK legal deposit library and one of five designated National Research Libraries (NRLs). The Library hosts researchers working on its historic collections: e.g. the Darwin Correspondence Project, which will complete a 30-volume edition of over 15,000 letters in 2022, and the Taylor-Schechter Genizah Research Unit, which carries out a comprehensive programme of cataloguing, conservation, and research on the Cairo Genizah — widely regarded to be most important medieval Jewish archive in the world. The Library actively supports Cambridge Digital Humanities and hosts their dedicated Lab. It also hosts the Cambridge Digital Library, an open access platform to digitised cultural and heritage assets from the Library, and many of the college collections.

Cambridge is a successful, world-leading research University that has made an extraordinary and sustained cutting-edge contribution to global research for many years across a wide range of academic disciplines. Its people-focused research strategy is driven by a unique blend of bottom-up initiatives originating in departments and faculties and top-down strategic themes driven by high-level University priorities, based on 10-year academic visions of the Schools and a comprehensive portfolio of interdisciplinary research initiatives. The University follows an open research policy and was the first UK university to publish a position statement on Open Research to disseminate the outputs of its research widely and effectively. Cambridge works closely with local and national government on policy via, for example, its Centre for Science and Policy (CSaP), which



pioneers a unique convening model of two-way policy maker engagement. It collaborates extensively and internationally with industry and academia and attracts some of the best researchers in the world to work in the UK.

The University lies at the heart of the Cambridge Cluster, with more than 5,000 knowledge-intensive firms, supports strongly a national culture of research integrity and plays a leading role in activities through the Russell Group, UUK Research Integrity Forum and League of European Research Universities. It pursues a comprehensive training programme for its postgraduate students and has an internal administration dedicated to the welfare, progression and careers of post-doctoral researchers in particular. The University fosters an environment that values diversity and promotes inclusivity in the workplace, as evidenced by the institution's Silver Athena Swan award, renewed in 2018, and its Returning Carers' scheme. Cambridge will continue to lead global research based on its established strategy, infrastructure and commitment to interdisciplinary discovery and innovation with wide social, cultural and economic impact.