



UNIVERSITY OF  
CAMBRIDGE

Estate Management  
Annual Report 2018-2019

## Contents

PAGE NO.

|                                |    |
|--------------------------------|----|
| Introduction                   | 3  |
| Estate Strategy                | 5  |
| 2018/19 Highlights             | 6  |
| Strategic Planning             | 6  |
| West Cambridge Site            | 8  |
| Central Sites                  | 9  |
| South City Sites               | 10 |
| North West Cambridge Site      | 11 |
| Environmental Sustainability   | 12 |
| rEMap Transformation Programme | 14 |
| Facts & Figures 2018/19        | 15 |

## Introduction

# Welcome to Estate Management's third annual report.

In this report we highlight some of the key projects Estate Management have been working on, or have completed, during the financial year 2018/2019.

The estate-specific goals that the projects are contributing to in the Strategic Framework for the Development of the Estate, introduced in 2016, are highlighted to demonstrate our progress in supporting the University's mission.

The first part of the report recaps the purpose of the Strategic Framework and its associated model which was developed to support estate decision-making across four performance areas.

The second part of the report looks at the various projects carried out during 2018/19, including activities supporting long-term strategic planning, site development and building projects across the various University sites, and schemes supporting sustainability and value for money.

The last part of the report looks at progress on Estate Management's transformation programme (rEMap), introduced in 2016/17 with the aim of improving the Division's efficiency, which in turn will support the Strategic Framework through better information, organisational processes, and response to our customers' needs.





## Estate Strategy

The Strategic Framework for the Development of the Estate was published in November 2016<sup>1</sup>. It seeks to ensure that the University estate supports the University's mission by developing and managing the estate so that it will:

- be an expression of the University's academic excellence, with high quality places and services, in order to contribute to the University's and the City's competitive advantage;
- support productivity by delivering a positive experience for students and staff;
- be developed sustainably;
- deliver value for money, and generate additional income, to improve the University's financial position.

A number of estate-specific goals are identified for four performance areas, and strategies are articulated to achieve each goal, to support future decision-making and proposals for improvement.

### Model to Assess Estate Decisions

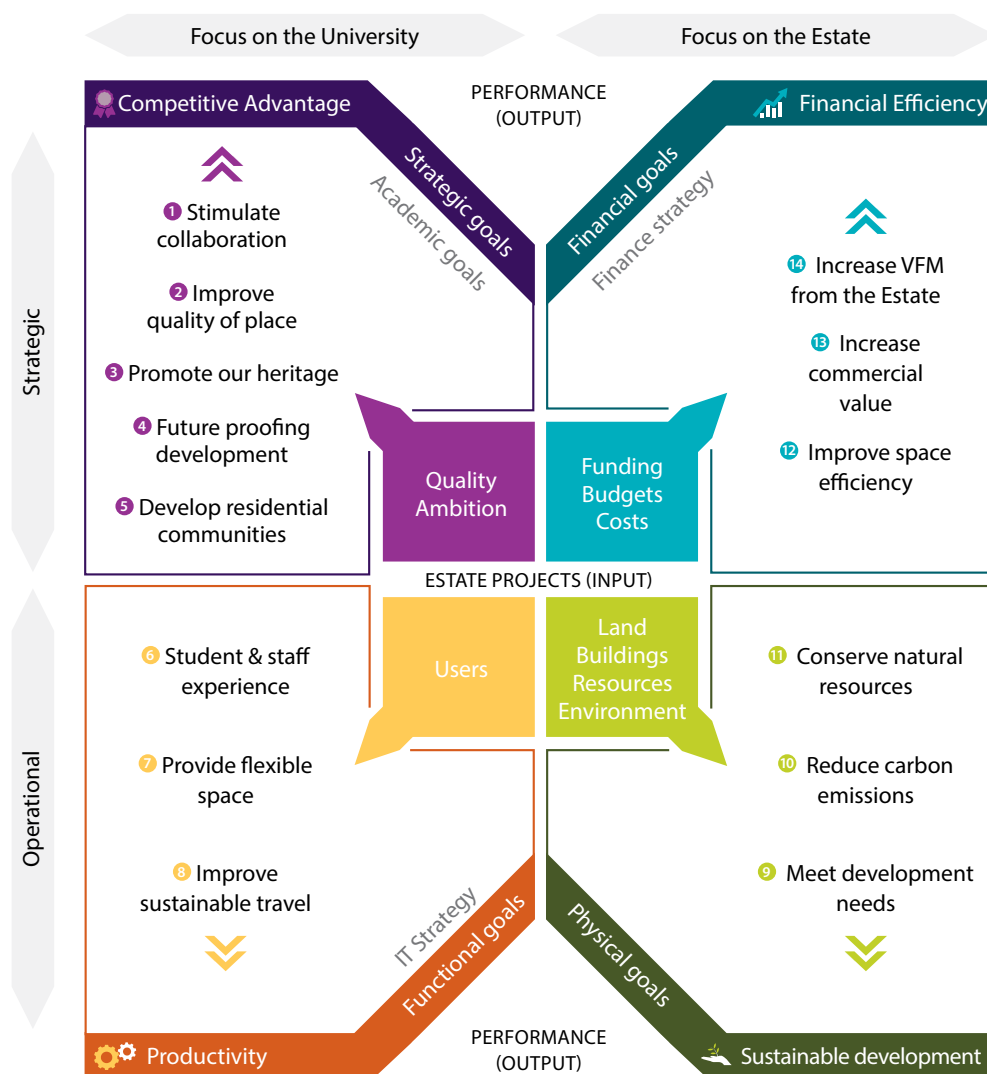


Image adapted from den Heijer (2011)

1. A copy of the report is available on [www.em.admin.cam.ac.uk/strategic-framework](http://www.em.admin.cam.ac.uk/strategic-framework).

## 2018/19 Highlights – Strategic Planning

Under each highlight the Strategic Framework goals that the project or scheme are contributing to are shown in brackets.



### Science Based Zero Carbon Target

In July 2019 the University became the first university in the world to announce that it has adopted a 1.5 degrees Science Based Target for carbon reduction on its operational estate. It has committed to reduce its energy related carbon emissions to absolute zero by 2048, with a steep 75% decrease on 2015 emissions by 2030. Work is underway to reach this commitment including:

- Looking at options to significantly reduce the amount of gas that the University uses for space and water heating;
- sourcing all of the University's electricity from zero carbon sources
- a programme of energy efficiency improvements across the University's estate;
- ensuring that carbon is a key consideration in decisions relating to the development of new buildings.

**[Goals 10 & 11]**

### Transport Strategy

A new Transport Strategy was published in 2019, which sets out the actions the University will take over the next five years to minimise environmental footprint from transport, including:

- working with local transport providers and local government to improve public transport;
- improving cycling infrastructure and facilities to support cycling via initiatives such as the Pool Bike scheme;
- working towards 100% electrification of the University's vehicle fleet by 2030, and electrification of the Universal bus service from 2021;
- reviewing our approach to car parking permits to make sure these are managed consistently and transparently across the University.

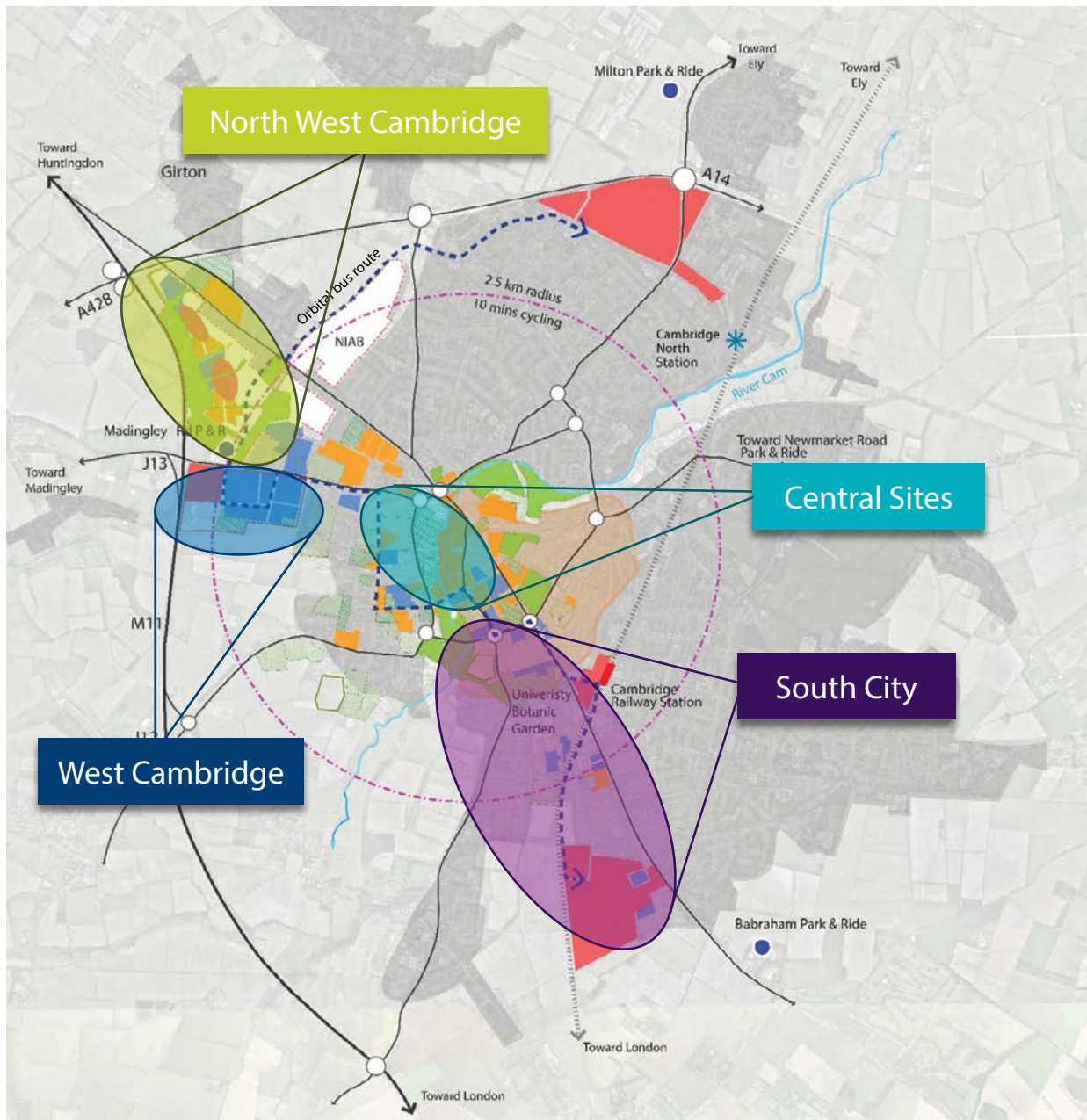
**[Goals 6, 8 & 10]**



### Sustainable Construction

Further work has been carried out on the Design and Standards Brief, a technical guidance document introduced in 2018. It promotes investment in good quality, energy efficient buildings that are adaptable to future change. Version 3.1 published in 2018/19 includes improved standards for sustainable travel, biodiversity, and embodied carbon assessment. **[Goals 2, 4, 7, 11 & 14]**

## Estate Map 2018/19



Map courtesy of AECOM



## 2018/19 Highlights – West Cambridge Site

### West Cambridge Masterplan

The University continued negotiation around the package of sustainable transport measures to complement the West Cambridge Masterplan. These discussions included liaison with the Greater Cambridge Partnership to integrate the masterplan with evolving proposals for the Cambourne to Cambridge route. **[Goals 1, 4, 8 & 9]**

### Civil Engineering Building

The new Civil Engineering Building was completed in May 2019. It was designed to enable University researchers, industry and other academic institutes to work together on joint research programmes on a wide variety of civil engineering disciplines, including sensor development, geomechanics and construction. Sustainability and future proofing underpins the building's design including:

- construction elements that enable the building to be taken apart and re-used;
- extension-friendly adaptable cladding to allow for future expansion;
- thermochromatic glass slates on the facade which limit sunlight penetrating the building to maintain best temperature;
- strategically-located sensors delivering real-time feedback on the performance of the building, including temperature, humidity and carbon dioxide levels.

**[Goals 1, 4, 7 & 10]**



### Ray Dolby Centre (Cavendish III)

Construction started on the new £300m Cavendish laboratory in February 2019. It was named the Ray Dolby Centre in recognition of a £75 million gift from the estate of sound pioneer Ray Dolby. The purpose-built centre for world-leading physics research will bring together all of the Department of Physics' research groups under one roof. Research equipment will be shared with other institutions to encourage collaboration. A public wing is being built, including two lecture theatres, seminar rooms, a learning resource centre, and an exhibition centre. This will enable public events to be hosted to support the extensive programme of work with schools and the public. Sustainability is integrated in the design of the building, targeting BREEAM excellent, and using sustainable drainage techniques to manage water on site. **[Goals 1, 2 & 9]**

### Shared Facilities Hub

In May 2019 construction works started on the new Shared Facilities Hub located at the heart of the University's West Cambridge site. The building will provide flexible teaching and study accommodation for academics, students and staff from all departments and faculties, alongside catering and library facilities. It will also provide outreach opportunities for the local community. **[Goals 6 & 7]**



### Wilberforce Road Hockey pitches

The new hockey pitches at the Wilberforce Road Sports Ground were officially opened in October 2018. The addition of these high quality LED floodlit pitches for both Cambridge students and the wider community contributes to the University's mission for sports. The project took 9 months to complete and included a two-month archaeological excavation period, and extensive land remodelling on the existing green field site. **[Goals 6 & 9]**



## 2018/19 Highlights – Central Sites



### Fitzwilliam Museum refurbishment

A two-year refurbishment project of the main entrance dome at the Fitzwilliam Museum was completed in August 2018. Works included essential structural repairs to timber and plasterwork, new copper cladding, the introduction of passive vents to reduce heat build-up, repairs to the polychrome and installing new energy efficient lighting. **[Goals 2, 3 & 10]**

### Student Services Centre

The new Student Services Centre was completed in February 2019, ready for opening in the Easter term. The building brings together several student support functions into a consolidated location, with a mix of open plan office spaces, cellular offices and breakout spaces. The project is the second phase of the New Museums Site redevelopment which started 8 years ago and involves a combination of new build and refurbishment of several listed buildings. A new Examination Hall was built with three floors of flexible accommodation above it. The building has a green and brown roof, creating a habitat for bees, birds and bats, as part of the biodiversity and sustainability of the site. The project took 5 years due to the logistics of the city centre site and other challenges, including the discovery of a 12th century Augustinian Friary and various planning conditions. **[Goals 1, 2, 3, 6, 7 & 11]**



### Project Hadar

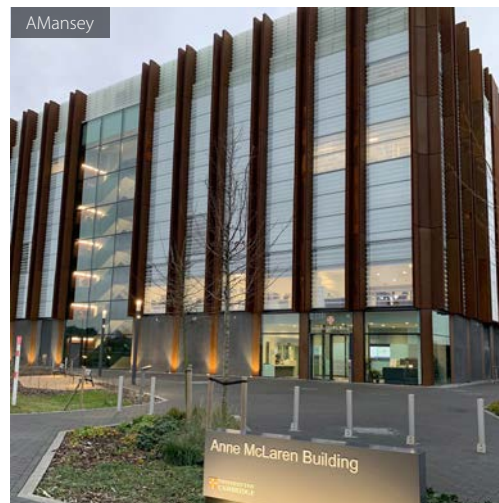
In May 2019 a £15m refurbishment project started on existing research buildings on the Old Addenbrookes Site. The project will provide refurbished laboratory and research space for the MRC Toxicology Unit who transferred to the University of Cambridge in 2018. The project joins two existing buildings together, creating shared spaces designed to promote scientific collaboration between several university departments. **[Goals 1 & 9]**



## 2018/19 Highlights – South City Sites

### Rising path, Botanic Gardens

The Rising Path, which leads to a viewing platform where visitors are able to see the full extent and layout of the Systematic Beds from a 3 metre high vantage point, was opened to the public in September 2018. The structure won an award at the Cambridge Design and Construction Awards for the best new landscape. **[Goal 2]**



### Anne McLaren Building

Construction of the Anne McLaren Building, a new biomedical research facility at the Cambridge Biomedical Campus, was completed in March 2019. Built to support research on diseases and the development of treatments to conditions such as cancer, dementia and diabetes, the building includes state-of-the-art laboratories and workspace areas that promote cross-collaboration. **[Goals 1 & 9]**

### Harrison Drive Nursery

The planning application for the proposed Harrison Drive Day Nursery was approved by the City Council in December 2018. The nursery will be built behind the Faculty of Education on Hills Road, and will provide up to 100 childcare spaces for pre-school children of staff and students when operational. **[Goals 6 & 9]**



### Jeffrey Cheah Biomedical Centre

Works continue on the Jeffrey Cheah Biomedical Centre at the Cambridge Biomedical Campus adjacent to Addenbrookes hospital. The new building containing state-of-the-art laboratories will allow a number of stem cell research groups to work together in one place. It will contain a café, seminar room and exhibition space for events. **[Goals 1 & 9]**

## 2018/19 Highlights – North West Cambridge Site

### Eddington

Occupancy of key worker housing at the new Eddington district on the North West Cambridge site doubled from 350 units in August 2018 to 700 units in July 2019.

In February 2019 the sporting facilities on site, including a cricket pitch and clubhouse, sports pitches and a sports pavilion, were opened to the public.

Planning permission was secured for the Eddington Hotel and construction works started in June 2019 on the building, which will include a restaurant, a seasonal roof terrace and co-working spaces.

A number of buildings on the development and the masterplan won further prestigious awards throughout the year, including the RIBA East and National awards and the Civic Trust awards. The buildings that won awards for their outstanding designs include the Storey's Field Centre and Eddington nursery, and the Utility buildings which include the sub-stations, pumping stations and the sports pavilions. The development's emphasis on environmental features like recycling, water and energy saving, as well as public spaces were commended.

The new district is leading the way on sustainable postal delivery by taking part in the Royal Mail's zero emissions e-trike trail for 6 months from June 2019.

**[Goals 1, 2, 4, 5, 6, 9 & 13]**



### Cambridge Centre for Crop Sciences (3CS)

In October 2018 construction started on the joint Department of Plant Sciences and NIAB facility just off Huntingdon road. The new centre will be home to researchers and students from Plant Sciences and its sister research departments including the Sainsbury lab, and other UK and international research institutes. **[Goals 1 & 9]**



## 2018/19 Highlights – Environmental Sustainability

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The adoption of the Science Based target and the new Transport Strategy have been highlighted in the Strategic Planning section of this report. Additional environmental sustainability highlights are summarised below. Further information can be found in the latest Annual Environmental Sustainability Report.<sup>2</sup>

### Carbon Emissions [Goal 10]

Scope 1 and 2 carbon emissions decreased again in 2018/19 by 7% compared to the previous year. The University is on track with the reduction pathway it needs to follow to achieve its new target.

### Energy [Goals 10 & 11]

A new renewable energy deal was set up with 19 other UK universities to buy energy directly from British wind farms. The Power Purchase Agreement (PPA) involves the collective purchase of £50 million of certified renewable energy over a 10-year period. This is the first time in UK history a PPA has been established as a collaboration between public sector energy users.

### Waste Management [Goal 11]

Waste sent to landfill has reduced for the third consecutive year to 257 tonnes in 2018/19, which is just 5.6% of the University's total waste disposals.

A new Waste Management Strategy was approved in June 2019 following collaboration with University staff. It sets out a series of priorities and actions for the University in managing and reducing its waste outputs, including a greater focus on internal reuse, more efforts to provide University departments with information on their waste-related performance, and closer working with University contractors and suppliers.

### Biodiversity [Goals 6 & 11]

A Biodiversity Action Plan covering the operational and rural estate, including the University Farm, has been developed through consultation with various stakeholders across the University and external consultants. The plan ensures biodiversity is considered in both new and existing developments, whilst taking into account the heritage of the University.

A project was carried out at Greenwich House, one of the University's main administrative buildings. Actions put in place to encourage flora and fauna on site include planting a new bee-friendly wildflower meadow, and installing bird and bat boxes. Early observations show an increase in butterflies and bees, and results of a staff survey showed an improvement in staff well-being in 68% of participants.

### Sustainable Procurement [Goals 11 & 14]

A University-wide review of procurement policies, practices and behaviours was undertaken in 2019 and there is now a commitment to obtain the international standard in sustainable procurement, ISO 20400.

2. <https://www.environment.admin.cam.ac.uk/Annual-Report>



## Sustainable Food [Goal 10]

A review of the policy which was implemented in 2016, was carried out in October 2018 by academics in various departments. Food purchased by the University Catering Service (UCS) in two periods, March-May 2015 (pre-policy) and March-May 2018 (post-policy) was compared and the associated carbon emissions calculated. The results showed a reduction in CO<sub>2</sub> emissions of 33% per kilogram of food due to the Policy changes, which include the following actions:

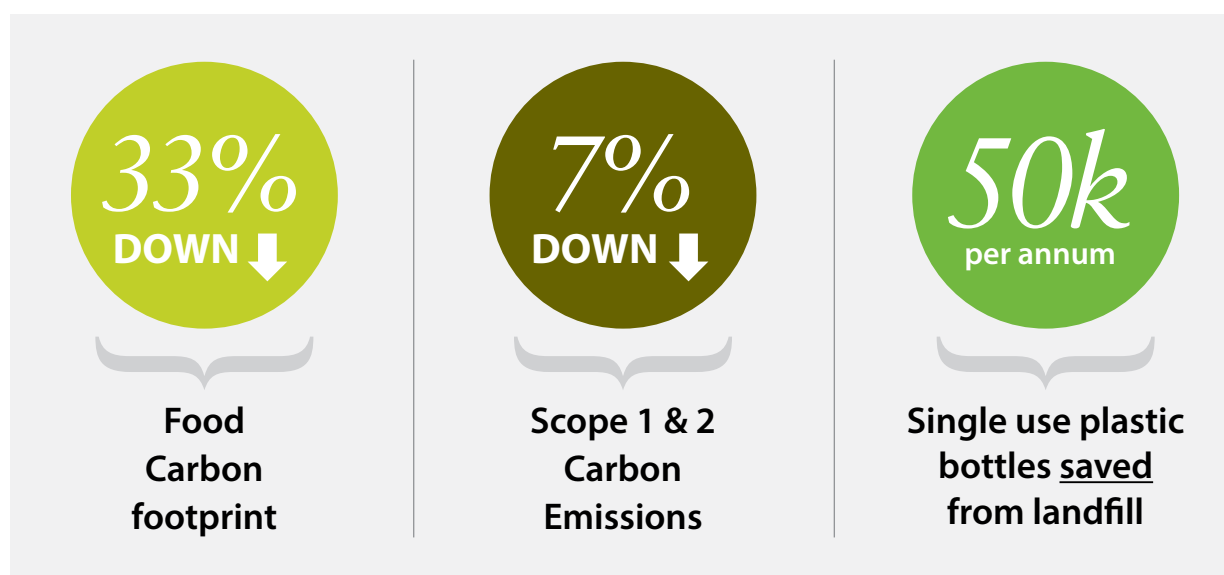
- **Eliminating the use of ruminant meat (beef, lamb) and reducing consumption of other meats;**
- **Promoting the consumption of plant-based foods;**
- **Avoiding unsustainable fish;**
- **Reducing the use of plastics and disposables, both recyclable and non-recyclable.**

A revised version of the policy published in April 2019 includes a ban on the sale of all single use plastic bottles in sites managed by the UCS.

The environmental benefits of the policy have been shared with other universities and institutions, both in the UK and worldwide. The work has been published in the Sustainable Food Journey,<sup>3</sup> which received local and national media attention.

UCS with academic collaboration were top 10 finalists in a global search contest designed to identify, reward, and spotlight innovative solutions for addressing climate change.

A new Sustainable Food Policy based on the University's Sustainable Food Policy was also approved for use in all Cambridge Colleges. This will have a significant positive impact on the sustainability of College food.



3. <https://www.unicen.cam.ac.uk/sustainable-food-0>

## rEMap Transformation Programme

Estate Management's transformation programme, rEMap, which commenced in 2016/17 with the aim of improving the Division's efficiency, continued to make some further progress during 2018/19. Further initiatives were implemented that focused on key areas of the road-map, some of which are highlighted below. Towards the end of the year the programme was being re-scoped with a new leadership team, with a plan of a re-launch in 2019/20.

### Communication



Further development of our new staff intranet (Hive), launched in 2018, including:

- the creation of a new "Working here" section containing HR staff policies and guidance. Improved staff recruitment and induction guidelines were also developed and published in collaboration with the Change Champion forums.
- the launch of a new Hive App for mobile phones enabling wider collaboration, in particular with non-desk based staff.

### Data and Information



Further development of the new interactive digital map of the Estate providing access to details of all the University's buildings and land.

Work commenced on the development of a new Information Register and on improved systems for storing Estate Management's Records.

### Culture Action Plan

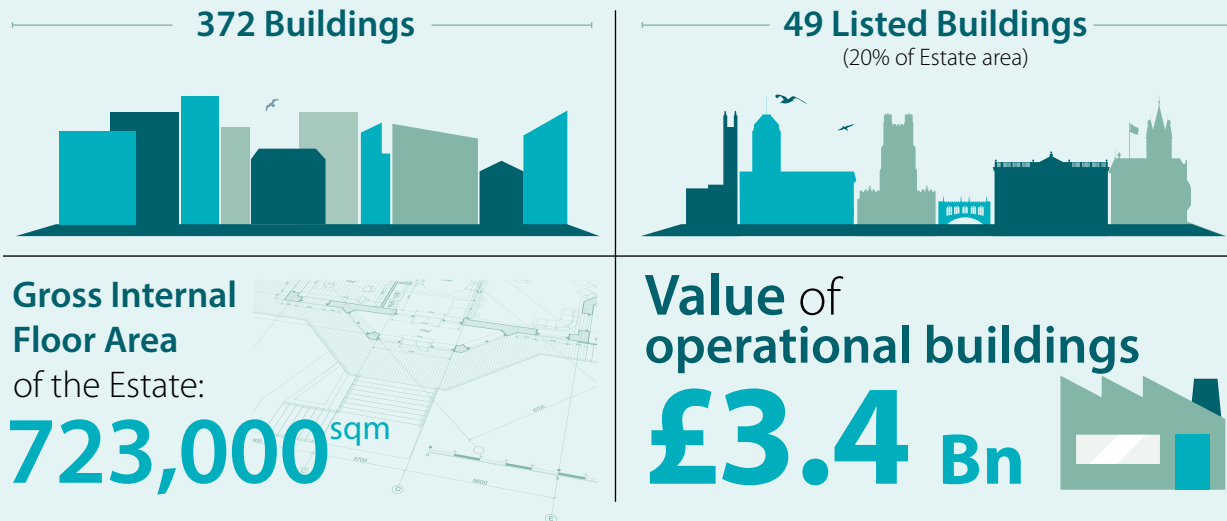


A Division wide staff survey was undertaken in early 2019, and with information gathered from a University wide survey, an action plan was collated to help improve effectiveness of the Division.

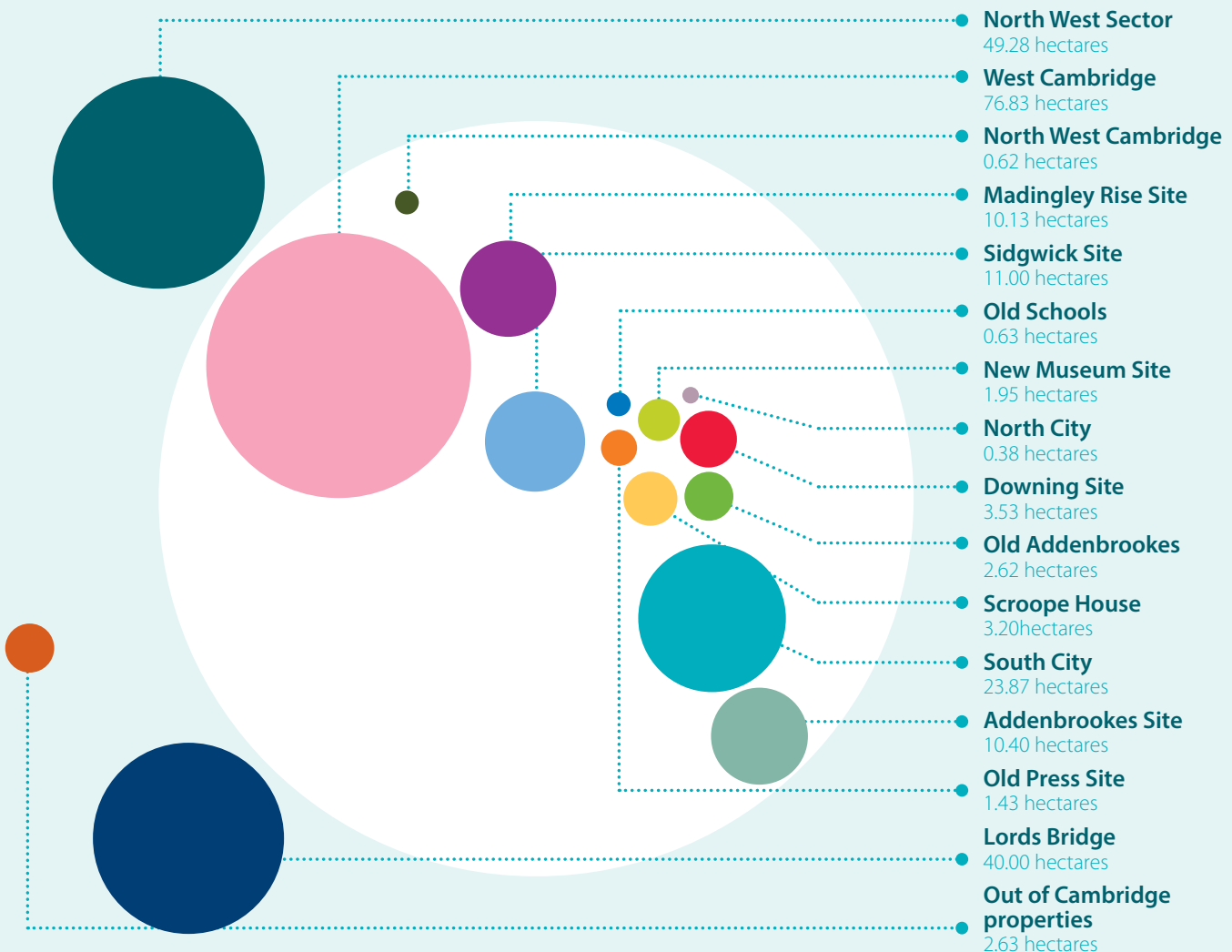
Work continued on the development of an Estate Management Charter due to be launched in 2019/20, along with the introduction of a new staff recognition scheme.

## Facts and Figures 2018/2019

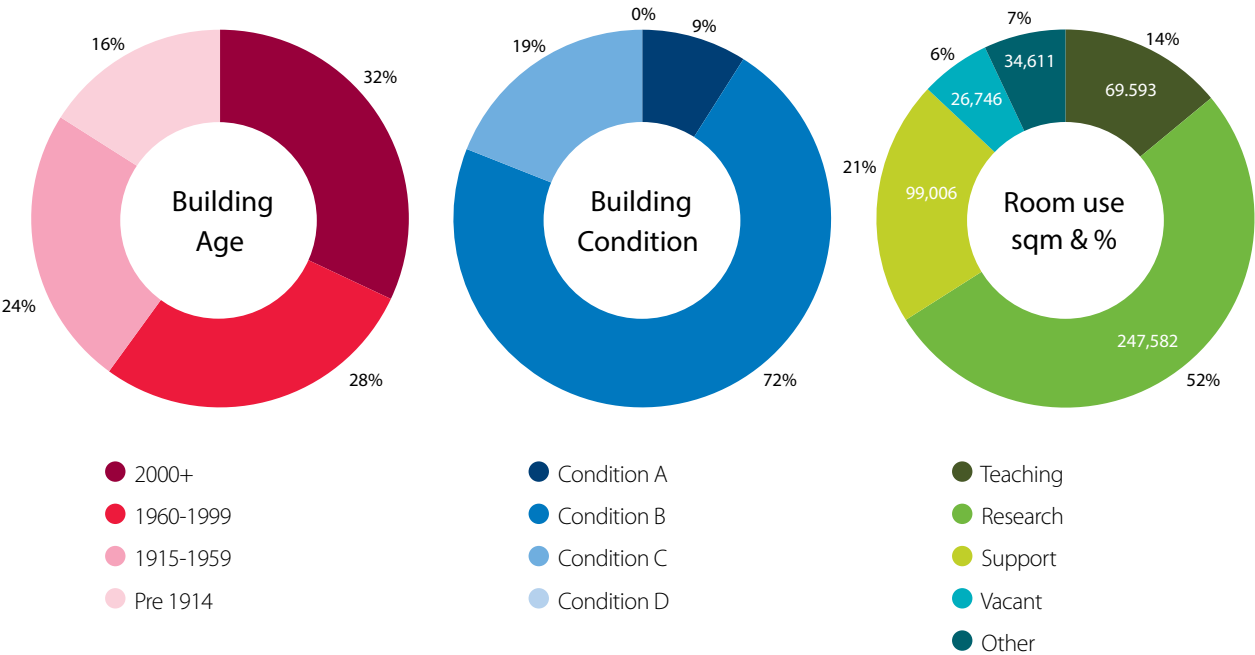
### Operational Estate



### Operational Site Areas



Operational Buildings



*Total headcount*  
in Estate Management  
as at 31 July 2019  
(figures exclude temporary staff and contractors)

} = 311





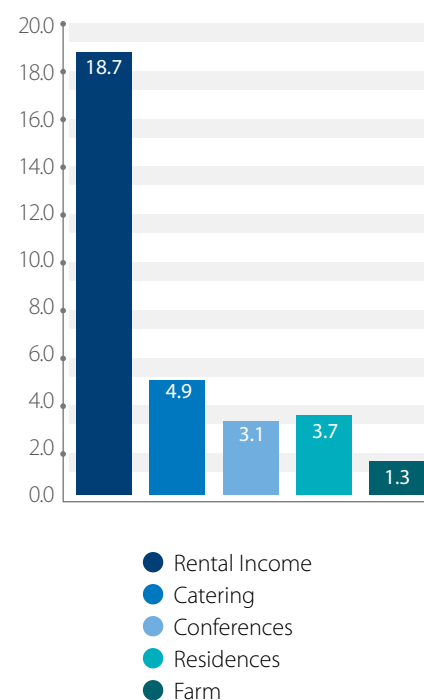
## Estate Running Costs (Admin Fund)



## Department Costs & Trading Activities



## Income from the Estate (£m)



## Estate Services

### Maintenance

12,250

**Maintenance calls** logged



20,059

**Purchase order lines created** with a total value of

**£4.7 million**

27,692

**Works orders** were raised



**£20 million**

of **building projects** delivered via Building Maintenance and Minor Works Funds

1,070

Properties managed by **Accommodation Service**



### Security

14,044

**Incident reports** initiated in the **Control Centre**

5,166

**Alarm activations** requiring an immediate response



4,238

**Reported incidents** attended by security staff



**130 Crimes** reported of which 50% relate to cycle thefts

3,243

**Times CCTV** used in support of an incident



### Site Facilities Services

1 million

**items of post** are delivered by UMS to **184 locations** across the city every year



4,900

**Car park permits** are issued annually



2,666

**Tonnes of waste** are collected and recycled or used for energy resulting in **zero waste to landfill**

219,000

**sqm of University space** cleaned



2,250

**Catering transactions/sales** per day





For more information please contact:

**Estate Management**  
**University of Cambridge**  
Greenwich House  
Maddingley Road  
Cambridge CB3 0TX

E. [estate.communications@admin.cam.ac.uk](mailto:estate.communications@admin.cam.ac.uk)

W. [www.em.admin.cam.ac.uk](http://www.em.admin.cam.ac.uk)