



# ENVIRONMENTAL SUSTAINABILITY at OXFORD



@OxfordEnvSust

# Oxford University is...

One of the **world's longest established** and **pre-eminent research universities**. Teaching since 1096.

Ranked overall **Global #1** in both the 2016/17 and 2017/18 Times Higher Education World University Rankings

**Ranked #1** in the UK's latest Research Excellence Framework for the quality of its research

**£2.9 billion** annual turnover (including Oxford University Press). More than **17,000** staff across the University, colleges and OUP.



# Academic Structure of the University

## Colleges



Libraries and  
Museums

Oxford  
University  
Press

Continuing  
Education



## Central University

Mathematical,  
Physical and  
Life Sciences  
(MPLS)

Medical  
Sciences  
(MSD)

Social  
Sciences  
(SSD)

Humanities  
(HD)

Chemistry • Computer Science Earth  
Sciences • Engineering Science •  
Materials  
Mathematics • Physics • Plant  
Sciences • Statistics • Zoology...

Biochemistry • Neurosciences  
Experimental Psychology Oncology •  
Paediatrics Pathology • Population  
Health Psychiatry • Surgical  
Sciences...

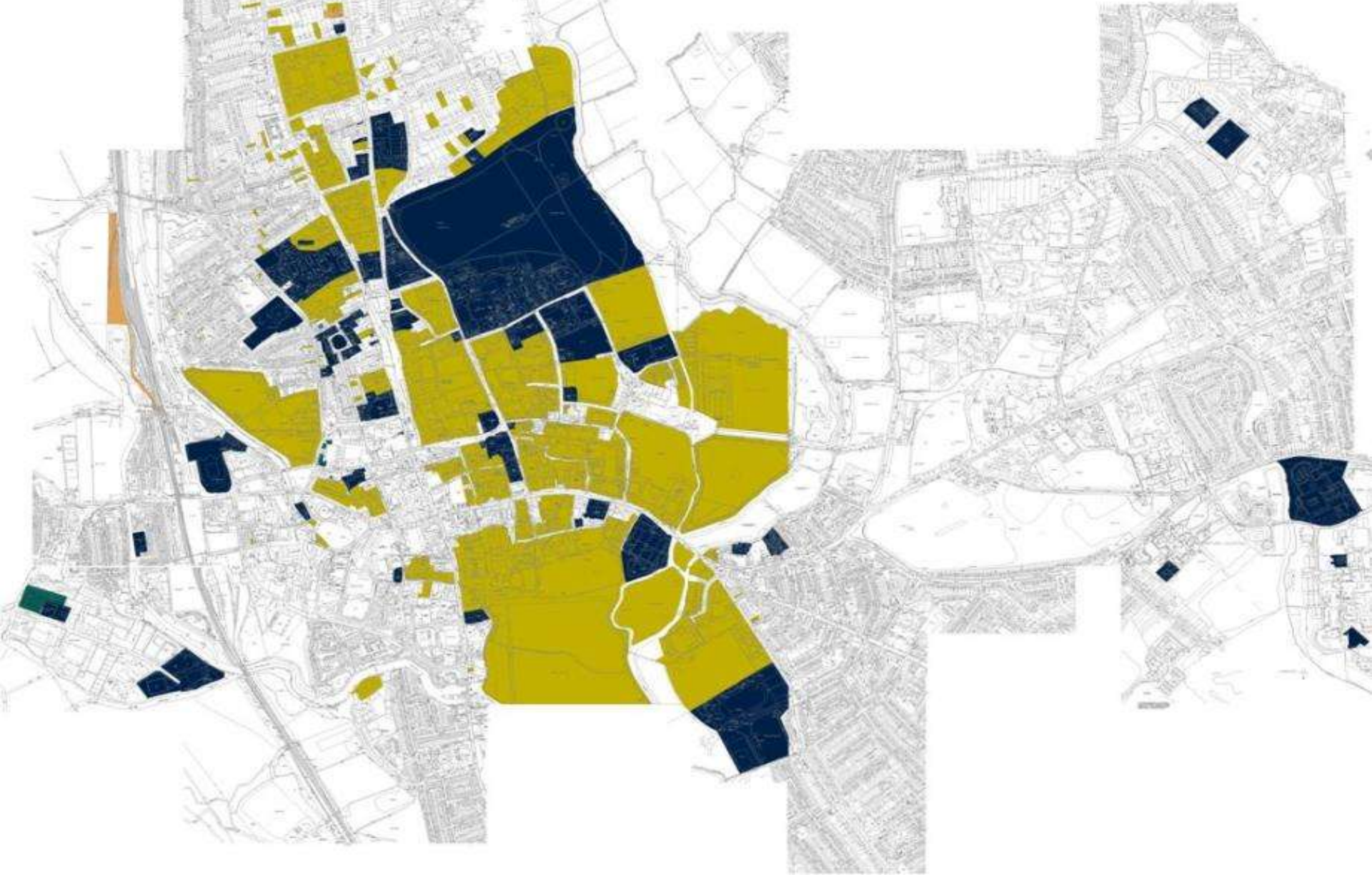
Archaeology • Saïd Business School •  
Economics • Education Geography &  
the Environment Blavatnik School of  
Government Area Studies • Law •  
Politics Sociology...

Art • Classics • English  
History • Linguistics • Medieval &  
Modern Languages • Music •  
Oriental Studies • Philosophy •  
Theology & Religion...



• Weirini 2019

[www.admin.ox.ac.uk/estates/environment/](http://www.admin.ox.ac.uk/estates/environment/)



## A FEW FACTS AND FIGURES

- 241 buildings across 13 sites
- 22% listed, including 10 at grade 1
- Annual capital projects expenditure in excess of £100m
- Growing at a rate of 2.5% / annum



ENERGY AND CARBON  
MANAGEMENT



SUSTAINABLE TRAVEL



EMISSIONS AND DISCHARGE



SUSTAINABLE BUILDINGS



WASTE AND MATERIAL  
RESOURCES



BIODIVERSITY



WATER



SUSTAINABLE PURCHASING



EDUCATION, RESEARCH AND  
KNOWLEDGE TRANSFER



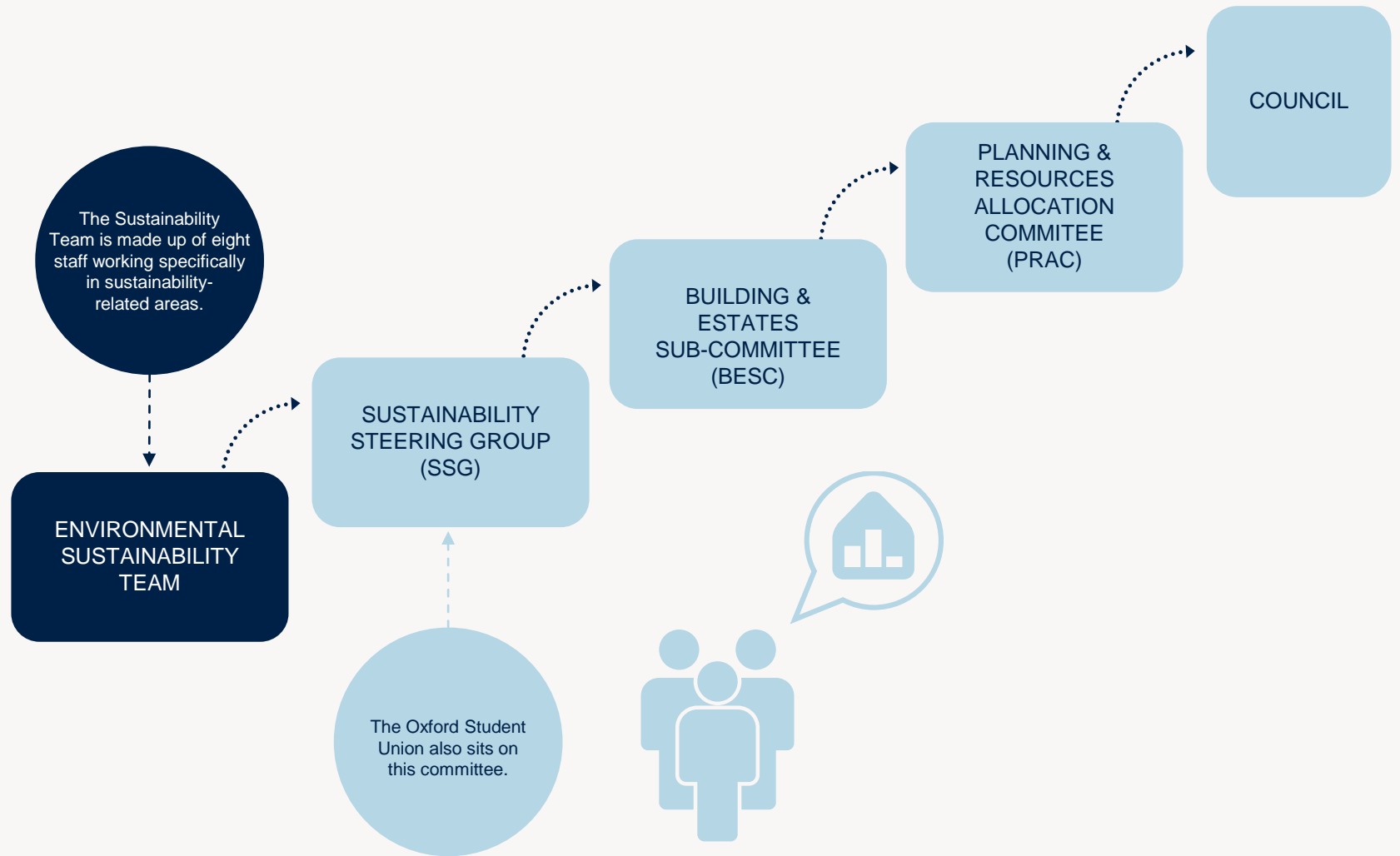
COMMUNITY

# WHAT IS COVERED BY ENVIRONMENTAL SUSTAINABILITY?









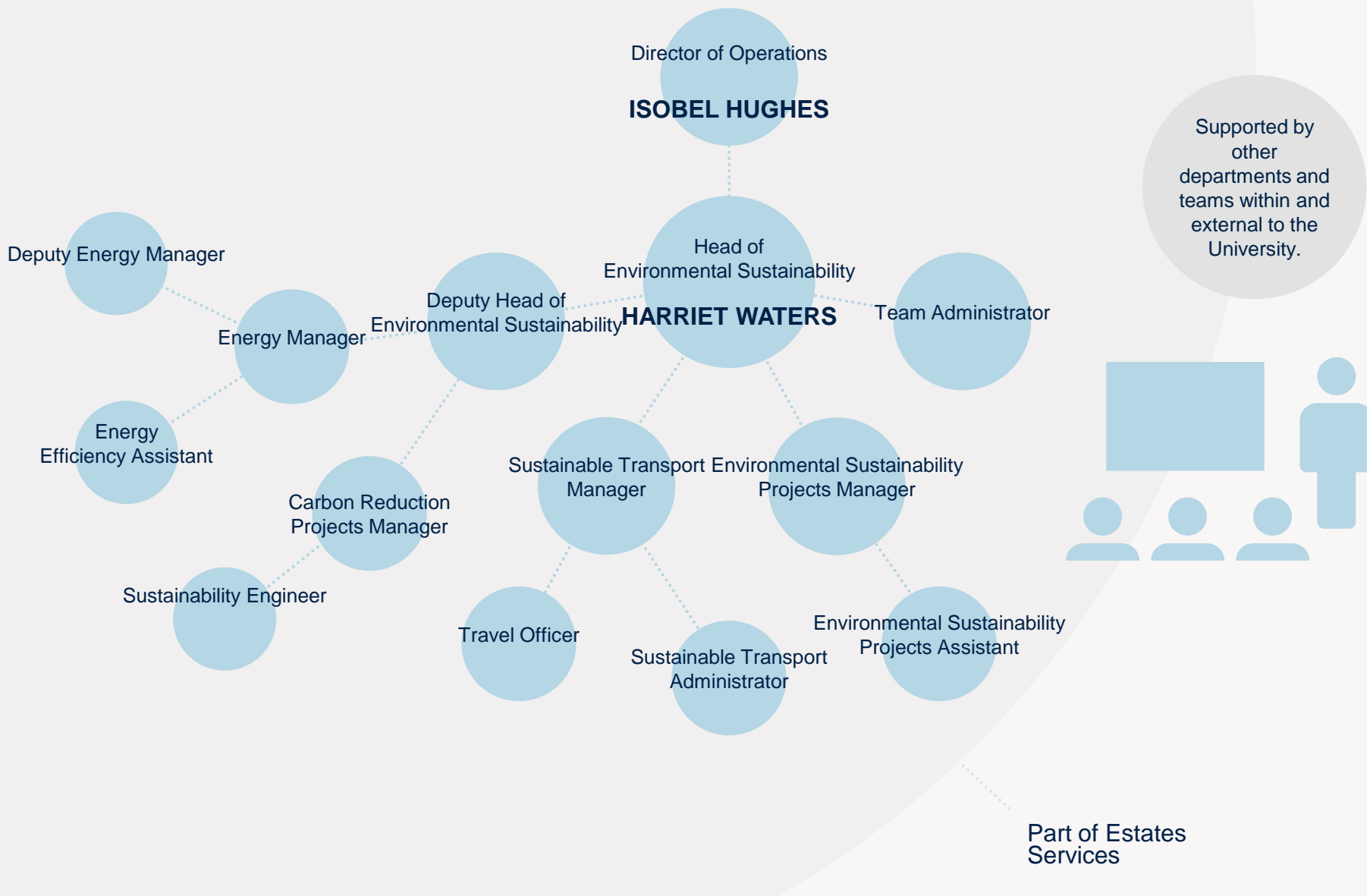
# HOW ARE DECISIONS MADE?

# Strategies and Plans

There are a number of strategies and management plans which lead the work of the Environmental Sustainability team including:

- Carbon Management Strategy
- Estates Strategy
- Transport Strategy
- Sustainable Food Policy
- Water Strategy
- Waste Management Strategy
- Sustainable Procurement Strategy
- Biodiversity Strategy





# HOW IS IT MANAGED DAY TO DAY?



# ENERGY AND CARBON MANAGEMENT

Encouraging energy efficient practices and investing in the estate to reduce carbon emissions.

## WHAT WE'RE DOING:

- Carbon Management Plan
- on site renewables such as ground source heat pumps
- energy efficient retrofits e.g. LEDs use in the museums
- building control
- behaviour change



ENERGY AND CARBON  
MANAGEMENT

ENVIRONMENTAL SUSTAINABILITY at OXFORD



## OPPORTUNITIES:

- every one has a role to play
- the University is growing
- historical value and listed protection of buildings
- research is often energy intensive



# ENERGY AND CARBON MANAGEMENT

ENVIRONMENTAL SUSTAINABILITY at OXFORD



# FACTS AND FIGURES

**£3.7 million**

Invested in our carbon reduction programme

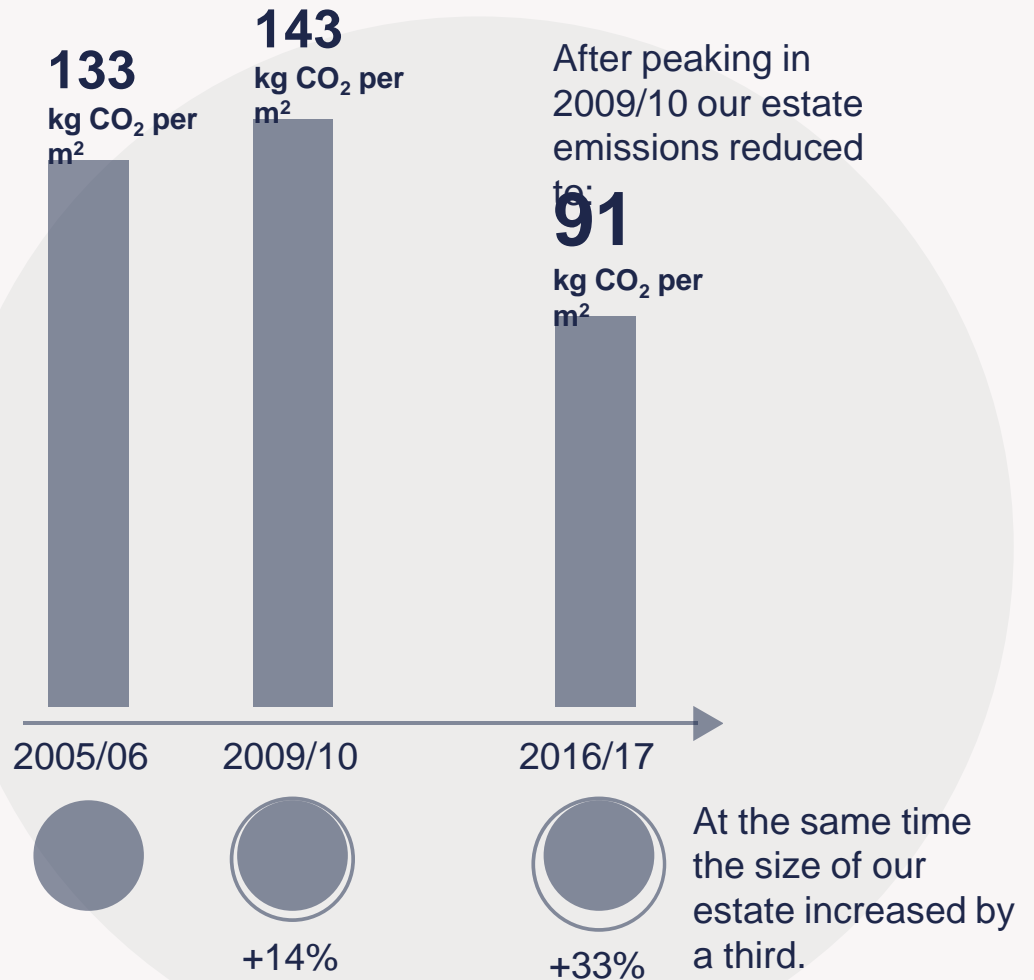


**£6 million**  
allocated further



**54x**

more on-site energy including ground source heat pumps and solar PV than in 2005/06



**ENERGY AND CARBON  
MANAGEMENT**

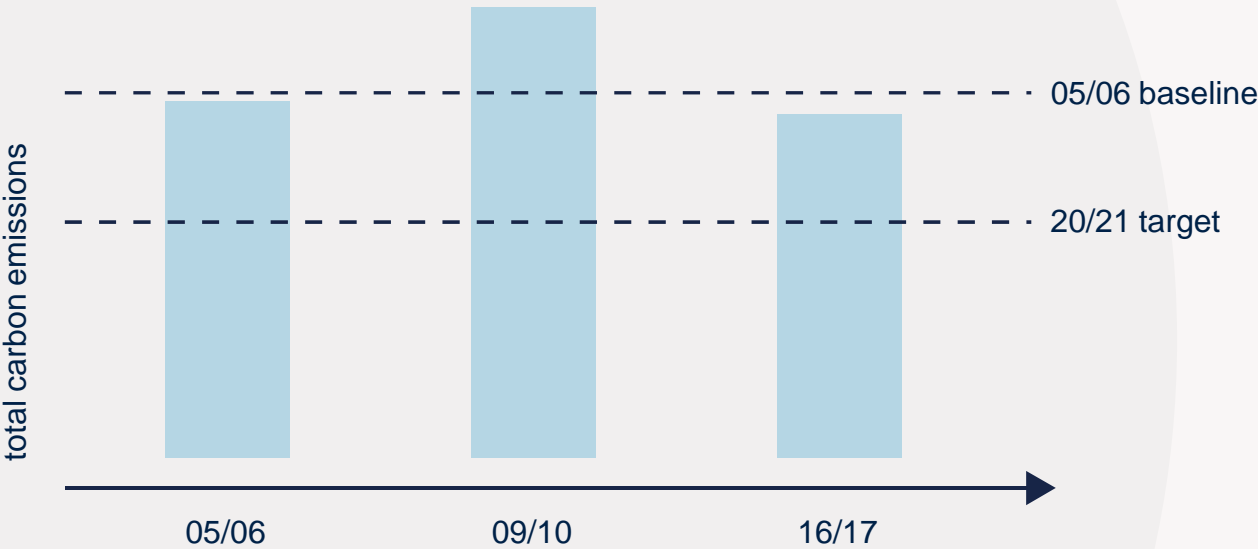
ENVIRONMENTAL SUSTAINABILITY at OXFORD





# FACTS AND FIGURES

Our total emissions are lower than the baseline for the first time (-16%) but we are still on a challenging journey to meet our 33% reduction target by 2020/21



## ENERGY AND CARBON

ENVIRONMENTAL SUSTAINABILITY at OXFORD

## MANAGEMENT







## EMISSIONS AND DISCHARGE

Putting in place appropriate controls to prevent pollution and work to reduce where practicable emissions and discharges to air, land and water.

## WHAT WE'RE DOING:

- pilot study leading to the development of key central materials
- system is to be certified to ISO 14001 standard to confirm it is working effectively
- pilot study is extended over the functional estate from the six original



# EMISSIONS AND DISCHARGE

ENVIRONMENTAL SUSTAINABILITY at OXFORD



## OPPORTUNITIES:

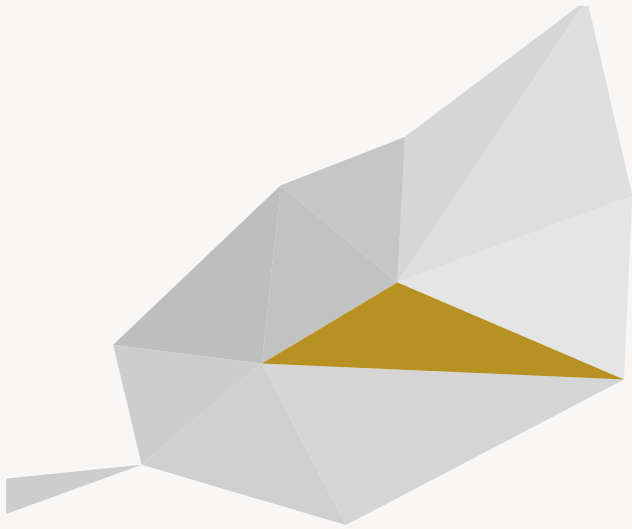
- the University's operations are diverse and spread over a large number of sites leading to diverse impact and variable requirements
- each user of the University has a role to play



# EMISSIONS AND DISCHARGE

ENVIRONMENTAL SUSTAINABILITY at OXFORD



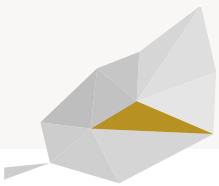


## WASTE AND MATERIAL RESOURCES

Encouraging preventing and reducing waste and reuse of resources prior to recycling or disposal.

## WHAT WE'RE DOING:

- utilisation and removal of natural resources
- the impact of final treatment of materials whether for re-use, recycling or final disposal
- implications for the cost of purchasing material as well as the cost of disposal
- it is a significant environmental impact of the University of Oxford
- a new waste contract has been identified for the whole University
- each bin is now weighed on collection and departments are charged by weight
- an online reuse portal has been launched to reduce purchasing and waste



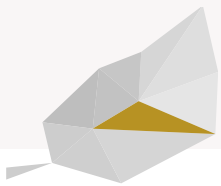
WASTE AND MATERIAL  
RESOURCES

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## OPPORTUNITIES:

- Develop a Waste Plan to support the waste strategy
- Review and analysis actual data to set targets
- Increase awareness across stakeholders
- Work with the waste contractor and departments to minimise waste
- Encourage reduction and reuse



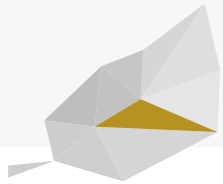
WASTE AND MATERIAL  
RESOURCES

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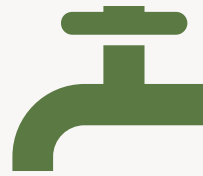
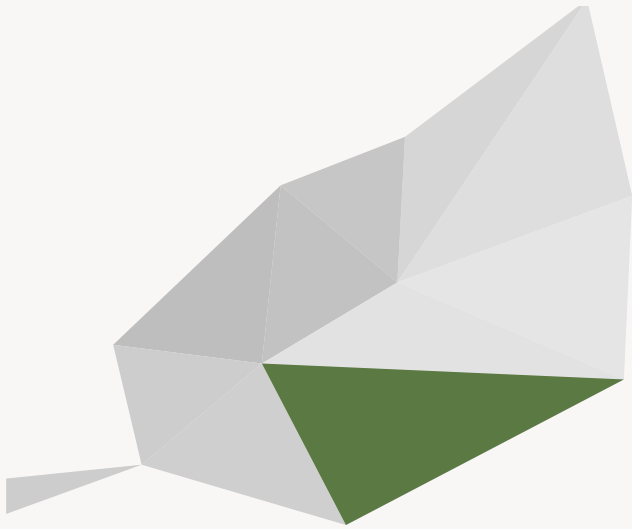




# FACTS AND FIGURES



## WASTE AND MATERIAL RESOURCES



## WATER

Reducing water consumption through water efficient practices and technologies.

## WHAT WE'RE DOING:

- roll out of the water strategy
- install water efficient equipment
- encourage water efficient practices
- smart meters to detect unusual consumption



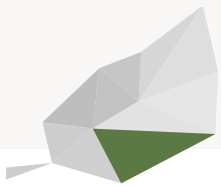
**WATER**

ENVIRONMENTAL SUSTAINABILITY at OXFORD



## OPPORTUNITIES:

- increase engagement
- improve monitoring and measuring
  - every one has a role to play
  - the University is growing
  - water is frequently seen as a free resource
  - research is often water intensive

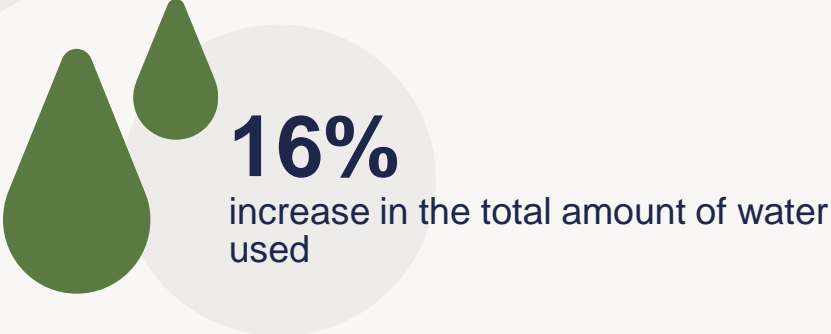
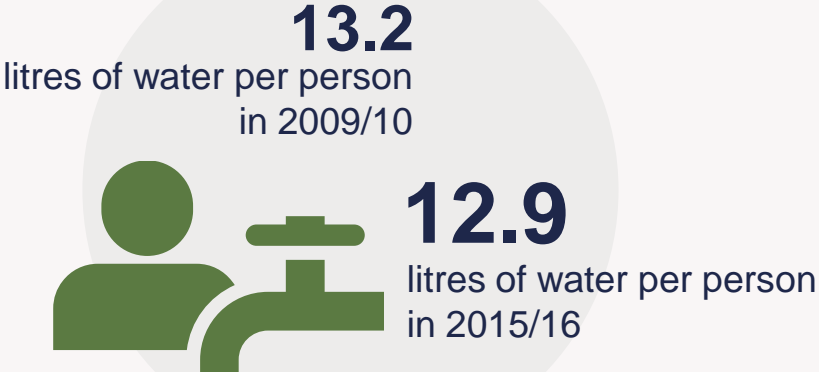


**WATER**

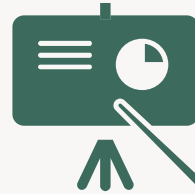
ENVIRONMENTAL SUSTAINABILITY at OXFORD



# FACTS AND FIGURES



**WATER**



# EDUCATION, RESEARCH & KNOWLEDGE TRANSFER

Increasing awareness and understanding of environmental sustainability by staff and students and serving society by contributing and promoting the University's research and knowledge transfer on sustainability.

## WHAT WE'RE DOING:

- continued to work and offer workshops, events and internships
- launched a number of engagement programmes such as Green Impact and Student Switch Off



EDUCATION, RESEARCH & KNOWLEDGE  
TRANSFER  
ENVIRONMENTAL SUSTAINABILITY at OXFORD



## OPPORTUNITIES:

- engagement needs to be on-going and habits and behaviours can be hard to change
- there are many competing demands for staff and student time



EDUCATION, RESEARCH & KNOWLEDGE  
TRANSFER

ENVIRONMENTAL SUSTAINABILITY at OXFORD





# FACTS AND FIGURES



Received ISCN international award for collaborative innovation

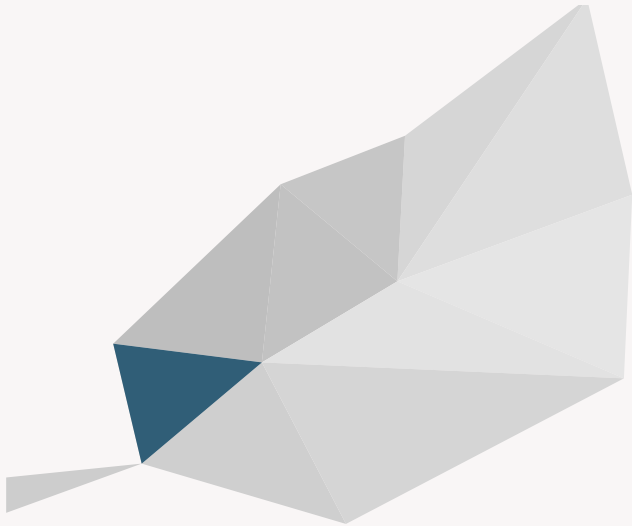


## EDUCATION, RESEARCH & KNOWLEDGE

## TRANSFER

ENVIRONMENTAL SUSTAINABILITY at OXFORD



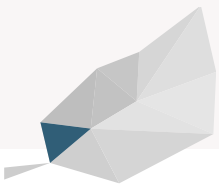


# SUSTAINABLE TRAVEL

Reducing emissions from work-related travel  
and University-owned vehicles.

## WHAT WE'RE DOING:

- a draft University travel strategy was developed and is to be approved by Council in 2014/15 this contains a number of targets
- cycle parking was improved at six sites
- an Oxonbikes station has been installed at the Old Road campus
- safe cycling workshops were delivered across the University that was attended by over 200 staff and students.

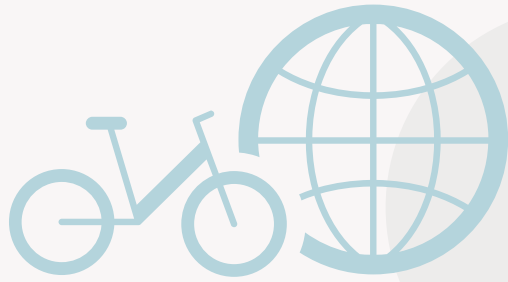


# SUSTAINABLE TRAVEL

ENVIRONMENTAL SUSTAINABILITY at OXFORD



# FACTS AND FIGURES

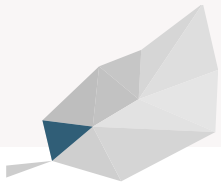


**2x**

the distance of travelling around the globe has been covered by pedal power part of the Oxonbike cycle-share scheme



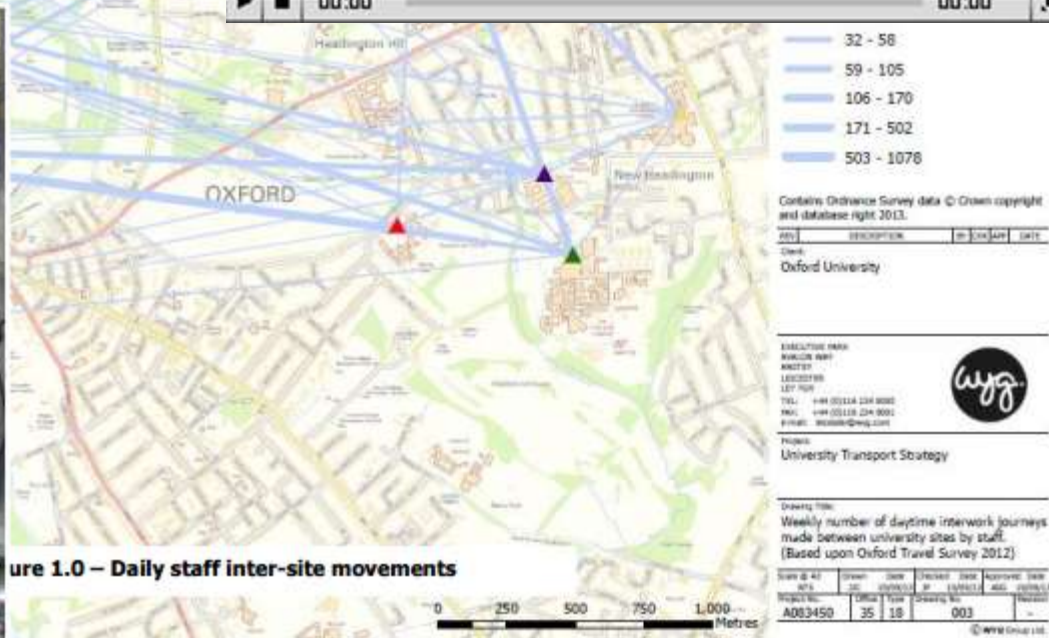
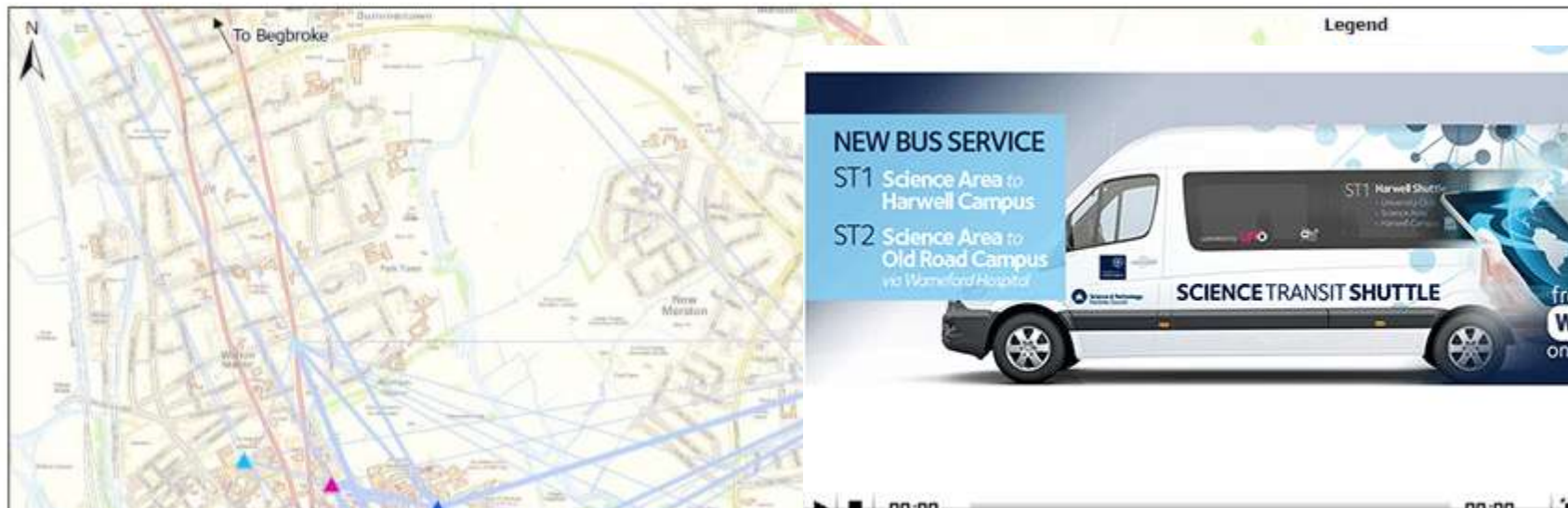
The Science Transit Shuttle completed its first year of operation. The initial pilot has been extended and an extra route added



## SUSTAINABLE TRAVEL

ENVIRONMENTAL SUSTAINABILITY at OXFORD





**Figure 1.0 – Daily staff inter-site movements**

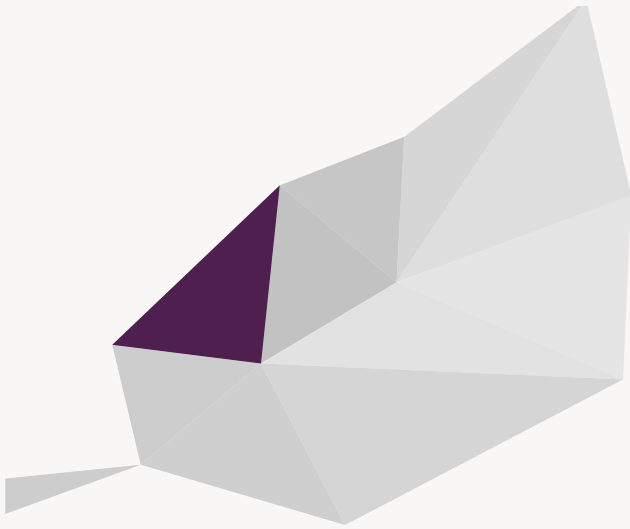
# INTRODUCING PICKMEUP









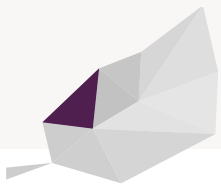


# SUSTAINABLE BUILDINGS

Making full use of available space and designing and refurbishing buildings in line with the University's Sustainable Building Philosophy.

## WHAT WE'RE DOING:

- projects have successfully attained the necessary credits in their post construction stage BREEAM assessments to be awarded Excellent ratings.
- the Sustainable Buildings Philosophy continues to be implemented.
- Soft Landings is being implemented on the Mathematic Institute (Andrew Wiles Building) project.
- implement a pilot project in the Blavatnik School of Government which will focus on low energy and low carbon including natural ventilation.



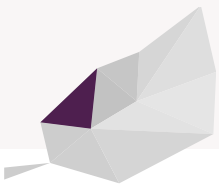
# SUSTAINABLE BUILDINGS

ENVIRONMENTAL SUSTAINABILITY at OXFORD



## OPPORTUNITIES:

- balancing the needs of building users and operational requirements, security and a low energy approach to design
- ensuring opportunities are not missed on smaller projects with less design flexibility and more constrained budgets
- a complex and ambitious design programme.



# SUSTAINABLE BUILDINGS

ENVIRONMENTAL SUSTAINABILITY at OXFORD



# FACTS AND FIGURES

the University has received certification including BREEAM Outstanding for the Big Data Institute.



the University's first Passivhaus certification was achieved by Kellogg Student Hub.



Blavatnik School of Government awarded the environmental rating of BREEAM 'Excellent'



## SUSTAINABLE BUILDINGS

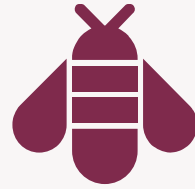
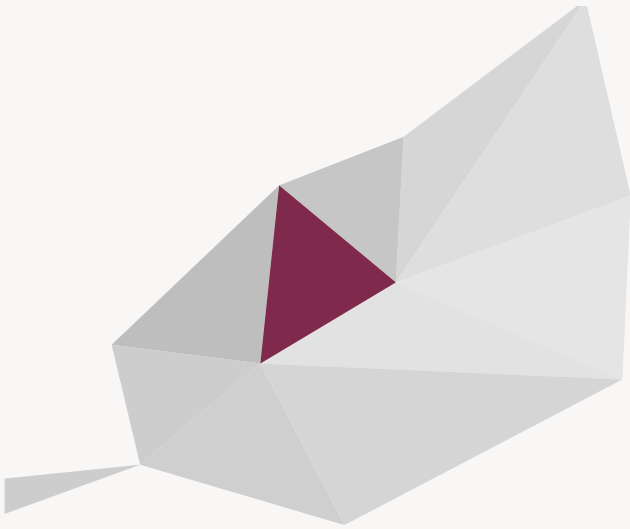
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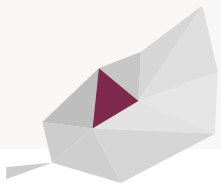
## BIODIVERSITY

Enhancing wherever possible wildlife habitat on University-owned land and supporting wider initiatives as appropriate.



## WHAT WE'RE DOING:

- draft biodiversity strategy developed with baseline surveys conducted to identify four pilot areas
- site plan has been drafted
- working group has been put together to finalise the strategy and plans - the strategy will be formally signed off in 2014/15
- swift events, workshop and survey



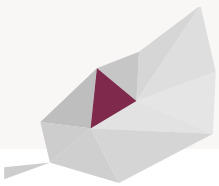
# BIODIVERSITY

ENVIRONMENTAL SUSTAINABILITY at OXFORD



## OPPORTUNITIES:

- formalisation of the Biodiversity Strategy, identification of indicators and monitoring and measuring
- extension and development of volunteering and education opportunities



**BIODIVERSITY**

ENVIRONMENTAL SUSTAINABILITY at OXFORD



# FACTS AND FIGURES

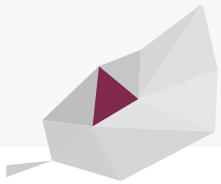


A swift tower has been designed for university Parks through a public competition in partnership with the RSPB. This supports Oxford becoming the England's first Swift City.



**3,500**

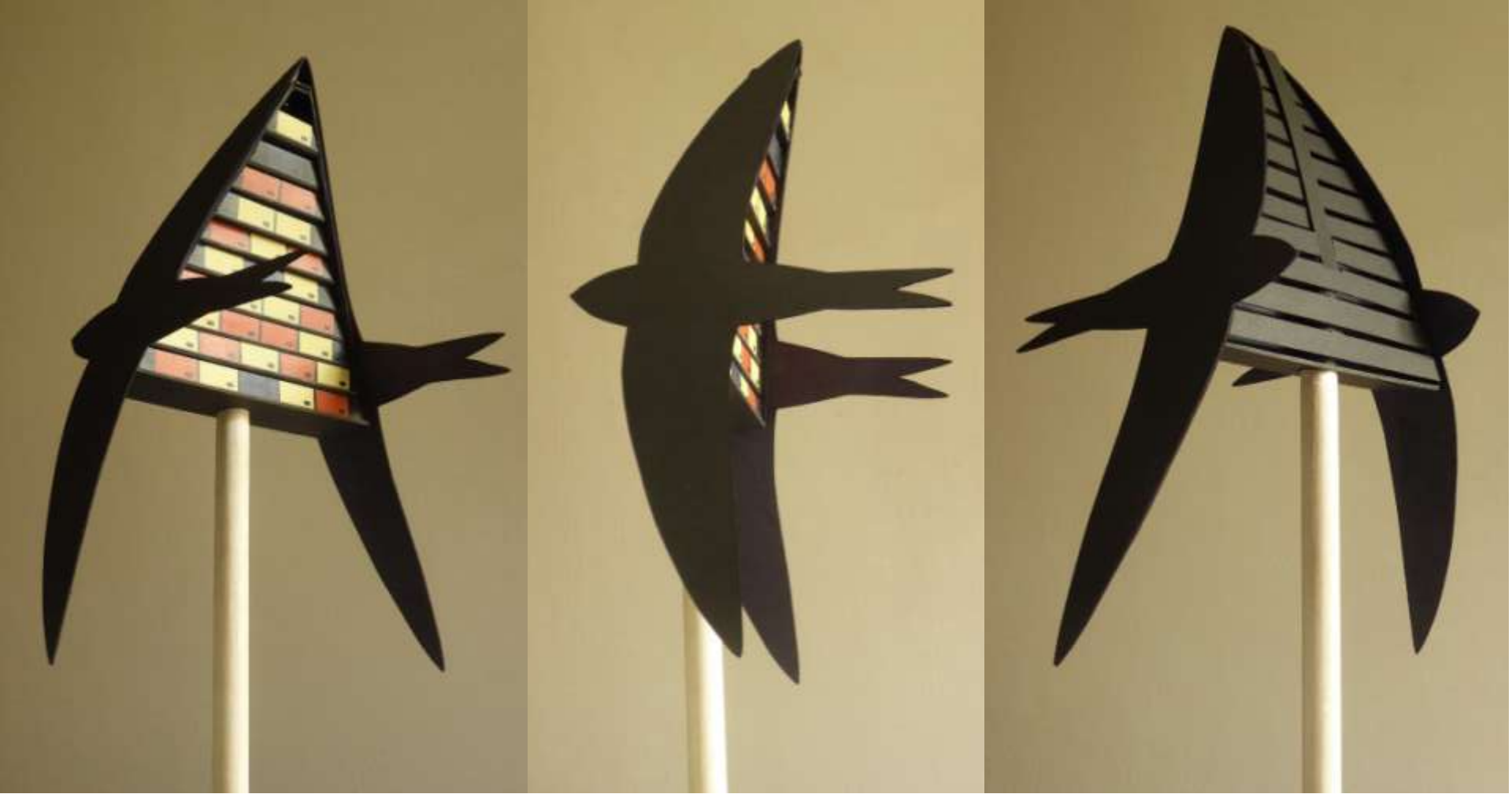
trees cared for by the University Parks team and 200 green spaces



## BIODIVERSITY

ENVIRONMENTAL SUSTAINABILITY at OXFORD





Scale model of the planned swift tower



## SUSTAINABLE PURCHASING

Encouraging and embedding sustainable and life-cycle considerations into purchasing decision.

## OPPORTUNITIES:

- wide variation of service and product requirements across the University
- 100's of devolved purchasing choices made across the university each day
- complexity of sustainable information relating to a product or service impact



# SUSTAINABLE PURCHASING

ENVIRONMENTAL SUSTAINABILITY at OXFORD



# Fairtrade at University of Oxford

Response to the Fairtrade Fortnight Survey of 2018



60% buy Fairtrade because they feel everyone in the supply chain should be rewarded fairly



70% felt that farmers and workers benefit the most from Fairtrade



Over 400 staff and students responded to the survey



FAIRTRADE

97% were already aware of Fairtrade goods, food and drink before Fairtrade Fortnight



2 in 5 might be swayed away from purchasing Fairtrade items due to cost or if a Fairtrade alternative is not available



41% have spotted Fairtrade goods in University cafes, provided in shared kitchens or within colleges\*



Over 80% frequently or occasionally buy Fairtrade goods, compared to less than 15% who rarely buy Fairtrade

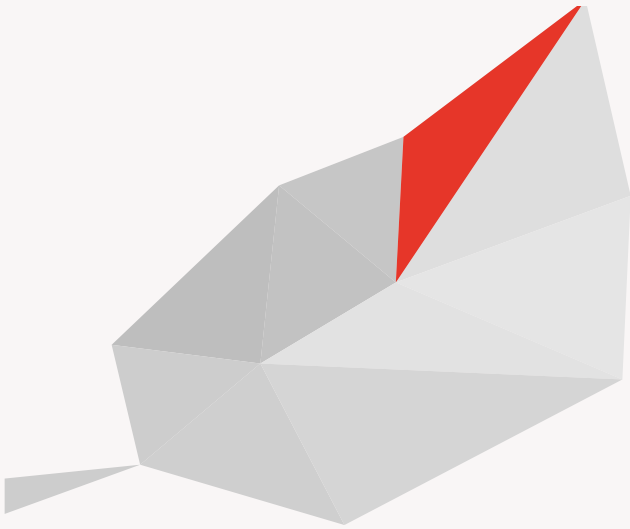


Fairtrade chocolate, coffee, tea, fresh fruit and sugar are the most commonly bought items



81% would like to see a greater variety of Fairtrade goods, food and drink across the University\*  
We want to improve this for you!





## COMMUNITY

Working with local schools and businesses and supporting an extensive volunteering programme.



# FACTS AND FIGURES



**3,245**

students sign up to Student Switchoff

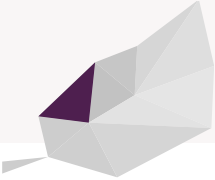
**100+**

teams have taken part in Green Impact receiving over 50 awards at our Sustainability Showcase where...



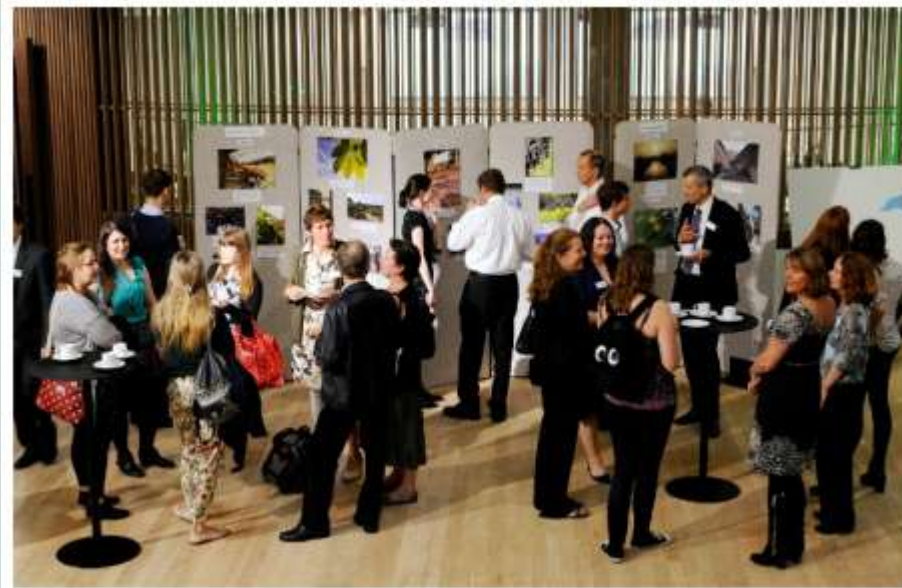
**200**

guests celebrated at the Sheldonian Theatre and Divinity School



# SUSTAINABLE BUILDINGS

# Sustainability Showcase



# Contact us:

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[www.admin.ox.ac.uk/estates/](http://www.admin.ox.ac.uk/estates/)

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