

**Environment and Climate Emergency Year End Report** 

2021/22



# Foreword



Our 2021/22 academic year has seen real progress against our five-step journey to achieve Net Zero before 2030. As you will see from this report, we have now set the strong foundations in place to deliver leading decarbonisation across Scope 1, 2 and 3 carbon emissions.

Of course, these efforts come at a time where they are desperately needed. The IPCC has presented stark findings on the need for immediate action to mitigate risks to the human population, and so we are proud to be striving for sector leadership in decarbonisation and environmental protection.

Our Environment and Climate Emergency response has been embedded at the heart of our Strategy 2030, to ensure that climate action plays a leading part in all our operations. Our Strategy places the health of our planet at its core, so that through research, teaching and other activities, we can lead meaningful action against the climate emergency and ecological crisis.

We've made real progress, but we know that there is much more to do, and that we cannot wait before taking further action. Over the next academic year, we will be looking to move ahead on largescale initiatives such as the Infrastructure Decarbonisation Masterplan and Carbon Net Zero Delivery Plan; we will develop a case to extend our world-leading Environment and Sustainability Institute in Penryn; and we will invest significantly in our digital capabilities, so that we offer a greener, twenty-first century student experience. These activities demonstrate our dedication to protecting our planet for future generations.

I'd like to take this opportunity to thank all our colleagues and students for their continued efforts to achieve our Net Zero targets. We have again met our carbon reduction targets for this academic year, and I'm proud to lead an institution which is so dedicated to this important cause.

#### **Professor Lisa Roberts,**

Vice Chancellor and Chief Executive, University of Exeter.

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# **Executive Summary**

# The University of Exeter declared an Environment and Climate Emergency in 2019, and has since accelerated original targets to seek Net Zero status by 2030.

The university took the decision to optionally adhere to the Task Force on Climate–Related Financial Disclosures (TCFD) framework in its environmental and financial reporting, with the structure of this annual report adopting the recommended disclosures included within this framework.

Specific governance has been implemented related to climate risk mitigation and advantage taken of emerging opportunities in this space.

The decarbonisation strategy has been split into two primary programmes: The Infrastructure Decarbonisation Masterplan, focusing on greenhouse gas (GHG) emissions classed under Scope 1 and Scope 2; and, Carbon Net Zero Delivery Plan, which looks more closely at Scope 3 emissions arising from indirect sources.

It is recognised that a significant proportion of the reduction achieved has arisen from passive measures, including the university's response to the

Covid-19 pandemic. Energy, Bought Goods and Services and Travel together represent 92% of the university's GHG emissions and carry a risk of carbon growth, so remain priority areas for climate action.

Reporting the university's impact on biodiversity and natural capital has begun, to ensure decision making strikes an appropriate balance between environmental protection and climate change mitigation.

Climate-related risks are identified and mitigated via dedicated governance channels and the ISO14001 Environmental Management System.

The university reports to 5 major benchmarking-platforms thus enabling external stakeholders to assess progress. Significant improvements have been made in relation to the university's sector position for the Times Higher Education Impact submission and the People and Planet assessment.

The university's in year target of an 11% reduction in GHG emissions compared to the 2018/19 baseline has been met. The total carbon footprint for the university was 84,718 tCO2e for the reporting year 2021/22. The chart opposite details the change in emissions by theme:





## 1. Introduction: The Environment and Climate Emergency

- 1.1. This year-end report has been published to demonstrate the University of Exeter's achievements in response to the Environment and Climate Emergency (E&CE). This report details the greenhouse gas (GHG) emissions reduction targets, progress against them, and the initiatives and passive impacts that have led to these reductions. It also outlines the plans for further emission reductions, alongside the introduction of additional sustainability metrics relating to waste, water and biodiversity.
- 1.2. This report maps the university's climate action initiatives to the UN Sustainable Development Goals (SDGs) to demonstrate actions in relation to the internationally recognised framework. Passive measures associated with the Covid-19 pandemic are still responsible for most GHG emissions reductions observed in operations and are included within this report.

#### **Declaring an Emergency**

- 1.3. In May 2019 the University of Exeter declared an Environment and Climate Emergency, acknowledging the need to mitigate the university's contribution to the acceleration of climate change, and implement cultural and behavioural change to promote sustainable behaviours and protect the environment for future generations.
- 1.4. The International Panel for Climate Change (IPCC) published a Mitigation of Climate Change report<sup>1</sup> to communicate their findings that action being taken is not enough to limit global warming to <1.5°, as required to reduce the risk to the human population.

- 1.5. The university's emergency response detailing the necessary policy changes and initiatives required to achieve Net Zero was first drafted in November 2019. Since then, the targets have been accelerated in recognition that they were not sufficiently ambitious, and in 2021 were revised to achieve Net Zero carbon by 2030.
- 1.6. With a team of 12 sustainability professionals working with the wider university to embed sustainable practice, and with a sophisticated data warehouse informing decarbonisation plans, the benefits of the hard work following the declaration of the E&CE are being realised.
- 1.7. Engagement with stakeholders, including transparency of action taken and communication of progress is key to delivering commitments. This report, published annually, is one of many communication channels made available to stakeholders.
- 1.8. As part of the university's commitment to transparent communications on the E&CE, environmental reporting has been aligned with the Task Force on Climate-Related Financial Disclosures (TCFD) requirements. The TCFD framework comprises four main areas deemed important for climate-related disclosure:
  - Governance
  - Strategy
  - Risk Management
  - Metrics and Targets
- 1.9. The university's approach to each of these in the context of the E&CE are explored in this report.



### 2. Governance

- 2.1. Governance is the first of the four pillars detailed in the TCFD framework. Specific channels have been put in place to: facilitate transformational change, mitigate operational risk to GHG emissions reduction; and present opportunities for further carbon reduction throughout the institution.
- 2.2. Table 1 presents an RACI assessment (responsible, accountable, consulted, and informed) for each of the major governance channels associated with the E&CE Response.
- 2.3. It is vital that these governance channels complement the existing governance in place across the university to mitigate the risk of barriers to progress on climate action

Table 1. University of Exeter climate-related governance channels

Channel	Description	RACI
E&CE Board	Board of senior staff members responsible for identifying opportunity for sustainable practice, and mitigating risk to implementation.	Responsible, Consulted, Informed
E&CE Project Monitoring Group	Internal group within the Sustainability Team responsible for allocating E&CE budgets effectively and in line with overall strategic direction.	Accountable
Advocate Climate Taskforce (ACT)	Academic representation from all faculties, and soon to include professional services, to determine sustainable best practice and implement it across research, teaching and professional activities.	Accountable, Consulted
Strategic Investment Portfolio Committee (SIPC)	Responsible for high-level financial allocation across the university and budget approval for E&CE activities.	Informed, Consulted
Capital Management Group (CMG)	Responsible for financial sign off for initiatives across the university, at a more detailed level. CMG are responsible for ensuring financial security for the E&CE agenda.	Informed, Consulted

# 3. Metrics and Targets

#### **Reporting Boundary**

- 3.1. The university's reporting boundary has been defined in line with GHG Protocol. Emissions from all operations over which the university, or one of its subsidiaries, has operational control are accounted for. Any property which is not owned or occupied by the university is excluded from the institutional boundary.
- 3.2. The university's operational boundary encompasses emissions from Scopes 1, 2 and 3 to ensure emissions from all aspects of the value chain are considered. The categories included in the inventory are detailed in Table 2.
- 3.3. Scope 1 and Scope 2 GHG emissions arise from direct and indirect energy consumption, respectively. Scope 1 accounts for fuel consumption arising from operations owned or controlled by the university, whilst Scope 2 emissions occur from the generation of purchased or acquired electricity, steam, heating or cooling consumed and is therefore considered as indirect.
- 3.4. Scope 3 accounts for all indirect emissions, not included in Scope 2, which occur from sources owned or controlled by other entities in the value chain (e.g. waste management suppliers, travel suppliers, lessees etc.).
- 3.5. A number of emissions categories detailed in the GHG guidance have been excluded from the university's inventory: processing of sold products; franchises; use of sold products; upstream transportation and distribution; and, end of life treatment of sold products. Justification for these exclusions is that the category is not applicable to the university; the GHG emissions are immaterial; or that the carbon is already accounted for in a different category. However, the boundary is under continuous review and as such there are additional categories being considered for inclusion going forwards, including: student commute to and from non-term-time address; staff relocation; and, working from home.

Table 2. University of Exeter operational boundary

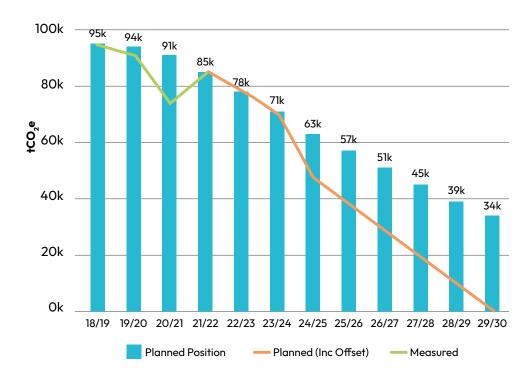
Category	Scope
Purchased electricity, steam, heating and cooling for own use	2
Purchased goods and services	3
Capital goods	3
Fuel and energy related activities (not included in Scope 1 and 2)	3
Waste generated in operations	3
Business travel	3
Employee and student commuting	3
Upstream leased assets	3
Company facilities	1
Company facilities and vehicles	1
Downstream leased assets	3
Investments	3



#### **Our Targets**

- 3.6. The university's overarching target is to achieve Net Zero across Scope 1, Scope 2 and Scope 3 by 2030.
- 3.7. The 5-Step Journey to Net Zero details how the university intends to achieve the Net Zero target. Step 1, Building the Foundations, provided a comprehensive view on the university's GHG emissions. Work is now progressing on steps 2 (Operational Carbon and Environmental Strategy), 3 (Whole Life Carbon Accounting) and 4 (Environmental Net Zero) via an integrated, non-linear approach.
- 3.8. Figure 1. University of Exeter greenhouse gas emissions target trajectory to 2030 shows the target trajectory, both with and without offset contributions, up to 2030.

Figure 1. University of Exeter greenhouse gas emissions target trajectory to 2030

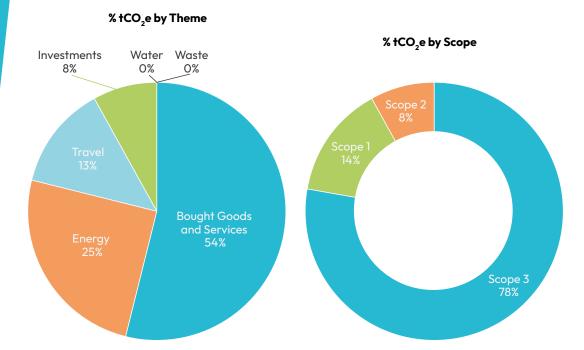




#### **Our Data and Reporting**

- 3.9. Environmental data and reporting is crucial in the university's journey to Net Zero: for determining where resource should be focussed for action; demonstrating successful initiatives to stakeholders; and for learning the necessary lessons for continued improvement in the approach to carbon reduction and environmental protection.
- 3.10. The university reports extensively on GHG emissions via a sophisticated data warehouse. Quarterly KPI dashboards and departmental scorecards are produced to provide stakeholders with the information they require to target operational emissions and demonstrate climate action.
- 3.11. Data quality is also monitored and scored via detailed quality assessments and regular analysis. Outcomes and recommendations are used to formulate a comprehensive data improvement plan.
- 3.12. The university's total GHG emissions are categorised into 6 major themes for reporting purposes. Figure 2 presents both the emissions profile comprising each of these themes and the breakdown by scope for 2021/22.
- 3.13. An organisation's carbon footprint is influenced by all operational activity, and can be impacted by external factors as well as its own climate action. Impacts from climate action are often termed active impacts, whilst external influences are often referred to as passive impacts.

Figure 2. University of Exeter greenhouse gas emissions profiles

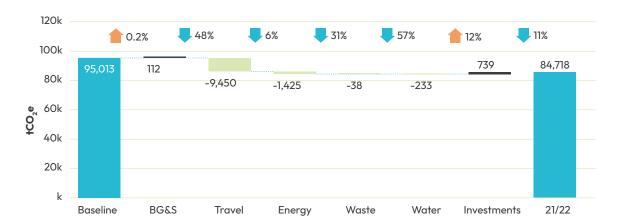




#### **Greenhouse Gas Emissions Summary**

- 3.14. The university's in-year target of an 11% reduction on baseline has been met, with a decrease in GHG emissions of 10,295 tCO2e since the 2018/19 baseline footprint of 95,013 tCO2e. Figure 3 details the change in the university's emissions by theme from the 2018/19 baseline.
- 3.15. It is recognised that a significant portion of the reduction achieved is down to passive impact, in particular the Covid-19 pandemic, which has had a considerable impact on occupancy levels across the estate. That said, the university has worked hard to ensure that it sustains the realised benefits of travel behaviours, energy consumption and bought goods and services as its operations return to pre-Covid levels.
- 3.16. Climate action has also played a role, with changes to the travel and procurement policy putting sustainable behaviours at the heart of all actions, and the promotion of the E&CE at the core of Strategy 2030<sup>2</sup>.

Figure 3. University of Exeter greenhouse gas emissions reduction presented by theme



#### **Energy**

- 3.17. Energy has seen a net decrease in GHG emissions of 6% since the 2018/19 baseline.
- 3.18. Occupancy levels across campus remained low compared with pre-Covid levels, for the majority of 2021/22. Estimates suggest occupancy was typically below 50%, which has contributed to a 9% decrease in electricity consumption. However, it should also be noted that carbon factors have decreased by 17%, thus also having an impact on emissions.
- 3.19. Buildings are still being conditioned with Covid safety as a priority and increases in heating and ventilation requirements translate to an increase of 17% in gas consumption.
- 3.20. Emissions from energy have only increased by 0.5% compared to 2020/21, when the UK was in the midst of lockdown. This suggests that behaviours on campus are still reflective of those driven by the pandemic; this is deliberate in some cases where efforts are being made to continue sustainable benefits arising from protective measures.



#### **Travel**

- 3.21. Overall, the university's GHG emissions from travel have reduced by 48% since the 2018/19 baseline.
- 3.22. Travel activities have been impacted by the Covid-19 pandemic to an even greater degree. The height of lockdown saw an 85% reduction in travel emissions at the university, but as activity resumes to pre-Covid levels, limiting travel emissions without hindering output has been a significant challenge.
- 3.23. Commuting travel is still down by 39% compared to the 2018/19 baseline, an increase of 110% on the previous year when campuses closed during the pandemic. Revised ways of working via the university's Future of Work and Adaptive Estates projects means this figure is unlikely to rise any further.
- 3.24. There is a significant resurgence in emissions from business travel, which has returned to pre-Covid levels. This presents one of the largest risks to achieving the Net Zero target. While business travel emissions have been reduced by 53% on the 2018/19 baseline, they have increased by 584% since previous year, and this upward trend is likely to continue (albeit to a lesser extent) into the next few years unless considerable operational changes are made.

#### **Bought Goods and Services**

- 3.25. Overall, GHG emissions arising from Bought Goods and Services (BGS) have increased by 0.2% since the 2018/19 baseline, and have increased by 6.5% since previous year.
- 3.26. Some areas of the BGS profile have seen decarbonisation; Hard FM (comprising largely construction) saw a 5% reduction from baseline due to the implementation of a sustainable design guide and limitation on built environment projects over the last few years.

- 3.27. Soft FM has also seen a reduction of 14% since the baseline, but there is a risk that contributions to this category, including hospitality and catering, could rise in the coming years as occupancy levels on campus increase following the Covid-19 pandemic.
- 3.28. Other categories have seen significant increases in emissions since the 2018/19 baseline, and these will become a focus for embodied carbon decarbonisation in the coming years via the Carbon Net Zero Delivery Plan. Most notably, IT has seen a 40% increase since 2018/19 typically due to equipment replacement and a need to invest in on-site server infrastructure.
- 3.29. Professional Services has seen a 10% increase on the 2018/19 baseline profile, due to the need for additional consultancy services during the Covid-19 pandemic. However, with a 14% decrease on previous year, this inflation is quickly declining and is not seen as high-risk.
- 3.30. BGS is the largest contributor to the university's overall footprint due to the vast emissions associated with the embodied carbon of all its spend activities. In the year 2021/22 it accounted for 54% of the overall footprint.
- 3.31. It is important to note that the university's accounting methodology currently relies on a spend-based approach and so is influenced by spend patterns and inflation: this is recognised as a weak method for carbon accounting. Furthermore, this method of accounting makes it very difficult to use data to demonstrate efforts to decarbonise, as sustainable products often come at a higher price, and so reported emissions actually show an increase, despite real-life decarbonisation.
- 3.32. This is a significant risk to the university's agenda, and one which is being addressed as a priority with plans to accelerate migration to an activity-based approach.



#### Waste

- 3.33. GHG emissions from the university's waste activities have reduced by 31% compared to the 2018/19 baseline.
- 3.34. Waste accounts for less than 1% of the university's total GHG emissions, with material contributions from embodied carbon accounted for under BGS. Due to the significant impact of waste on the environment, alternative metrics to emissions are considered for sustainable decision making, such as tonnes of waste produced and recycling rates.
- 3.35. Total waste consumption has increased by 11% from the 2018/19 baseline, however this can largely be attributed to construction undertaken in 2021/22.
- 3.36. During this period, less than 12% of the university's waste went to landfill; 85% of which has arisen from construction projects and the remaining 15% from skips. However, due to the high carbon intensity of this treatment type, it accounts for almost 68% of the waste emissions.

#### Water

- 3.37. GHG emissions arising from water use and treatment have decreased by 57% since the 2018/19 baseline, with consumption increasing by 7%.
- 3.38. The decrease in emissions is accounted for by the 60% reduction in carbon factors since the 2018/19 base year.
- 3.39. At 0.2%, water is another category with a small contribution to the university's overall carbon footprint, but with considerable implications for the environment. As with waste, alternative metrics such as consumption are being reported to ensure reducing water remains a priority as part of the E&CE response.

#### **Investments**

- 3.40. GHG emissions from the university's investments have increased by 12% since the 2018/19 baseline, mainly due to the size of its cash holdings. However, the carbon intensity of the investment portfolio has decreased by 57% over the same period due in part to divestment policies.
- 3.41. The university's investments boundary currently includes contributions from pensions, cash in bank, investments, and spin-out companies, however this is likely to change in the upcoming year to align with GHG protocol, which does not appear to take cash in bank into account.

#### **Biodiversity and Natural Capital**

- 3.42. It's very common for organisations to focus on GHG emissions as a primary metric for progress in climate change mitigation. With the help of the academic community via an Advocate Climate Taskforce, the potential risks of using a single emissions metric for decision making has been identified, which could lead to the detriment of the local environment, even if benefits for the global climate are realised.
- 3.43. Earth and ocean systems are incredibly complex, but it is vital for the protection of the planet to focus on both reduction of GHG emissions but also to recognise and address the impact of other sustainability metrics (such as water consumption waste production, biodiversity improvement and natural capital).
- 3.44. In response to this risk, the university has progressed mapping of the biodiversity of its campuses and assets to allow a baseline position to be established, and to enable the embedding of biodiversity impact into the decision–making processes for estate management.
- 3.45. The following outline progress made on biodiversity contributions.



#### **Grounds:**

- 3.46. Significant investment has been made in assets to support better grassland management. Areas have been identified for trial of a long grass management regime, commencing in August 2022, looking at the balance of campus aesthetics and biodiversity.
- 3.47. Mapping of areas across Streatham campus to be prioritised for biodiversity, horticulture, or development. This will help to advise where biodiversity corridors, green belts and outdoor social spaces could be created.

#### **Staff and Student Engagement:**

- 3.48. Quarterly biodiversity thematic forum meetings have taken place to incorporate in-house expertise into overall biodiversity strategy and project development.
- 3.49. Students have investigated the importance of green spaces on campus to the student population and the anthropogenic impact on resident wildlife, and have committed to achieving bronze accreditation for a 'Hedgehog Friendly Campus'.

#### **Current Position:**

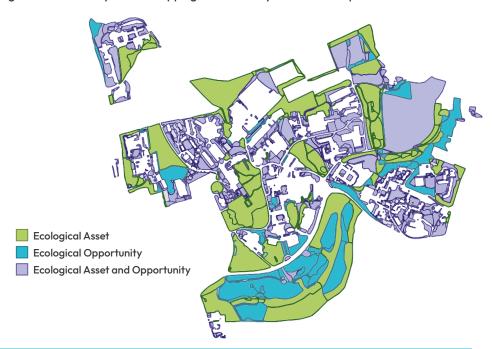
- 3.50. An exercise has been carried out to map the 8,853 trees across the campuses with regard to species diversity, size, carbon sequestration and ecosystem contribution to begin mapping the university's natural capital worth.
- 3.51. Streatham, St Luke's, Tremough and Lower Hoopern Valley have had ecological appraisals completed alongside their habitat areas and quality mapped as per Figure 4. These reports include a description of habitat types found in each area, the wildlife that can be supported and recommendations for how to improve habitat quality.
- 3.52. Simple biodiversity scores have been applied to each of these areas and now act as the university's biodiversity baseline. Recommendations are being implemented to periodically improve these biodiversity scores.

3.53. A biodiversity historic loss analysis is underway which will quantify the biodiversity units that have been lost due to campus development over the last decade.

#### Plans for the Upcoming Year:

- 3.54. A Nature Positive Pledge has been made by the university as a founding member of Nature Positive Universities<sup>3</sup>, which requires the calculation of a biodiversity baseline, the setting of targets for 2030 and the annual reporting of progress. With a baseline now calculated, ambitious, but achievable targets for 2030 will be considered and set.
- 3.55. One of the first major projects contributing to improving campus biodiversity focuses on improving areas of waterways across Streatham Campus.
- 3.56. An invasive species survey is proposed for Spring 2023.

Figure 4. Biodiversity metric mapping for University of Exeter campuses





## 4. Strategy

#### 5-step Journey to Net Zero

- 4.1. The E&CE response seeks to achieve 5 major milestones, taking the form of the 5-Step Journey to Net Zero, Figure 5. These milestones are continuous, and completion sees them embedded into business-as-usual operations to ensure Net Zero status is maintained in future years.
- 4.2. Step 1. Building the Foundations was completed in 2021, with a full sustainability team of 12 staff members appointed, a comprehensive data warehouse and reporting platform implemented based upon principles outlined in the GHG Protocol, benchmarking improvement plans developed, and GHG emissions targets up to 2030 committed to.
- 4.3. Focus is now on the Operational Carbon Emissions and Environmental Strategy. This takes insights from the university's carbon emissions profile and targets opportunity for GHG emissions reduction and environmental protection across all university operations. Energy, BGS and Travel together represent 92% of the university's emissions and so remain priority areas for climate action. Direct energy emissions (Scopes 1 and 2) are decarbonised via an Infrastructure Decarbonisation Masterplan, presented below alongside the Carbon Net Zero Delivery Plan, which details intentions for decarbonising the university's indirect emissions (Scope 3).
- 4.4. Early considerations are also being made for Step 3: Whole Life Carbon Accounting and Step 4: Environmental Net Gain. A spend-based methodology has been applied to date and enabled an initial understanding of the university's overall carbon footprint, the greatest GHG emissions contributors, and the likely hotspots of carbon intensity. However, this methodology has limitations in terms of situational modelling and impact identification.



Figure 5. University of Exeter 5-Step Journey to Net Zero



#### **Our Contribution to the UN SDGs**

- 4.5. The 17 SDGs act as an urgent call for action by all adopting countries as part of a global partnership for sustainable development. They also offer a fantastic opportunity for many to support the global economy and efforts to develop in a way that secures the protection of the planet.
- 4.6. The university is dedicated to its own contribution to these goals, and has this year begun reporting on climate action with reference to each of them. These achievements are shown in Figure 6.



Sustainable fisheries: Specialists are working with the National Lobster Hatchery in Padstow, Cornwall to develop lobster aquaculture which requires no feed input.

Blue Communities: a 4 year research capacity-building programme for marine planning in East and South-East (E/SE) Asia



Partnership with National Trust: New partnership between the University of Exeter and the National Trust to help protect the natural world Habitat Mapping: GIS Mapping of existing habitats across all our campuses to allow baselining of natural capital.

Nature Positive Pledge: Exeter are one of the 400+ global founding universities of the Nature Positive Pledge for the benefit of local natural capital

FARINERSHIPS
FOR THE GOALS

Sector Sustainable Research Framework: Contributions made to the first draft for UKRI consideration, with the University of Exeter responsible for sections related to Targets and Data.

**GVAV Partnership:** We are now donating all our suitable Audio-Visual equipment to schools to reduce end-of-life carbon emissions.

**SDGs in the curriculum:** Existing channels for SDG training for all our educators have been identified ready for rollout next year.

**Green Futures Student Solutions:** 5 student-led projects delivered, leading to recognition as Green Gown Award Finalists

Post Graduate Offerings: Continued offering of sustainability masters courses in Energy, Biodiversity, Marine and Environmental Intelligence

Connecting Health with the Environment: The Medical and Environmental Data Mash-up Infrastructure project (MEDMI) aims to connect diverse databases to improve our understanding of the links between climate, environment, and human health.

Green Energy in the South West: The electricity grid in Cornwall is heavily constrained. Currently, there is too much energy generation and not enough network to accommodate the export of energy. Researchers at the University of Exeter are working to design and build a local marketplace platform to optimise capacity on the local grid

13 CLIMATE ACTION

**Carbon Accounting:** Design work commenced to migrate to an activity-based carbon accounting platform, replacing a spend-based methodology. This will be the first of it's kind used in the HE sector and will greatly improve the accuracy of our accounting.

 $\textbf{Food Waste Recycling:} \ Trials \ completed \ in \ residencies \ with \ feasibility \ now \ underway \ for \ wider \ rollout.$ 

**Co-Bikes Expansion.** 14 new Co-Bikes available at our busiest station, outside the INTO building, promoting active travel for commuting.

LEAF Scheme: 100% of our labs are now signed up for the LEAF Accreditation Scheme.

**Travel Carbon Calculator:** Travel carbon footprint calculator added to our sustainable web pages.

10 RESPONSIBLE

CONSUMPTION

**On-the-Go Plastic Reduction:** 100% plastic free packaging for our onthe-go food offerings across all university controlled outlets.

**Supply Chain Engagement:** Hosted first annual event to engage supply chain with our climate plans and targets and decarbonise scope 3 emissions.

**Forum Piazzas Recycling:** New glass and cardboard recycling facilities implemented at the Forum Piazza, one of our highest footfall areas.

**Sustainable Procurement Training:** Entire Strategic Procurement team certified in Sustainable Procurement, with external training delivered to new staff.

Glass Recycling: Increased our glass recycling rate to 80% at bin collection points across campus.

Supply Chain Carbon Targets: Initiated 3 year partnership with Ecovadis platform which will help assess our supply chain against their sustainability activities and carbon reduction targets. 22 suppliers currently on board.

**Warp-It:** Continued implementation of Warp-It including claims from external charities for unwanted products as part of  $47 \text{ tCO}_2\text{e}$  savings across their platform.

**Sustainable Procurement Policy:** Implementation of a sustainable procurement policy inclusive of a minimum 20% criteria weighting for sustainability.

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4 QUALITY EDUCATION

Solar Energy Generation: 596,000 kWh of energy generated by our on-site solar panels, an increase of 282% on our 2018/19 baseline year and equivalent to the annual energy demand of around 200 households.

20% PPA Contribution: 20% Energy procurement via dedicated power purchase agreements to guarantee renewable provision.

7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



**Green Banking:** 28% of all cash-in-bank and short-term investments are now in funds with strong ESG credentials, and a revised plan to increase this annually.

**ESG-driven Investment:** 100% of our endowment portfolio is now invested with ESG and carbon reduction as a primary decision metric with the support of Rathbones Greenbank.

**Ultimate:** A research project that aims to create economic value and increase sustainability by valorising resources within the water cycle.

Infrastructure Decarbonisation: Infrastructure
Decarbonisation Masterplan (IDM) drafted and signed
off to detail how our estate will be decarbonised
between now and 2040.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE





**Electric Bike Provision.** Revised Co-Bikes location to make more accessible and increase the capacity by more than 100% in that space. Over 500 journeys are now taking place from our Streatham Campus a week with destinations across the city of Exeter.

**Stagecoach Bus Provision.** Dedicated bus route supported by the University now running to link Streatham campus with high-demand areas for public transport across the city.

Click the centre of the wheel to learn more about the UN Sustainable Development Goals



#### Infrastructure Decarbonisation Masterplan

- 4.7. Energy consumption is often a first-principal target for sustainability initiatives, particularly for large organisations with sizeable estates, such as The University of Exeter. GHG emissions arising from energy are easily monitored via metering and Building Management Systems (BMS).
- 4.8. Scope 1 and 2 GHG emissions make up 22% of the university's total footprint and are calculated with relatively high levels of accuracy. To reduce the GHG emissions associated with energy consumption, the Infrastructure Decarbonisation Masterplan has been drafted with support from the academic community at the University of Exeter alongside input from industry experts. This strategy sets out a plan up to the year 2040 to fully decarbonise energy consumption, at a time where energy sourcing comes with significant national, and global, challenges. Reducing energy consumption and generating more energy on site provides benefits beyond sustainability, mitigating financial risk associated with a particularly volatile energy market.
- 4.9. This plan takes proven decarbonisation principals and puts them into action: initially, improvements to building fabric are prioritised via upgraded window specifications and the retrofitting of insulation to improve building efficiency; heating, ventilation, and air conditioning (HVAC) systems will then be updated to improve efficiency; and finally, the migration to electric sources, alongside significant upscaling of on-site energy generation from solar panels and wind turbines.

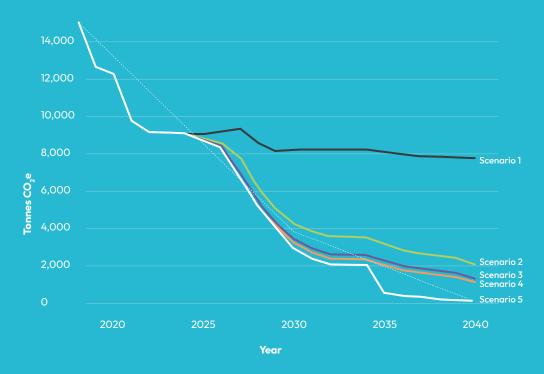
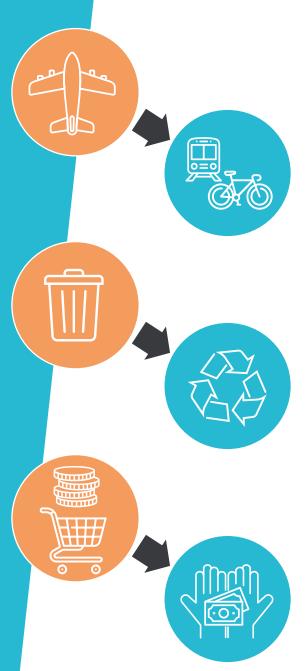


Figure 7. Decarbonisation trajectory for University of Exeter Scope 1 and Scope 2 emissions in line with expectations for the Infrastructure Decarbonisation Masterplan



- 4.10. This leads to a target trajectory for Scope 1 and 2 GHG emissions as shown in Figure 7.
- 4.11. Financing decarbonisation of an entire estate is a significant challenge. The university has divested significant funds to secure the viability of this project. However, this plan requires significant external investment, offering opportunities to the wider investment market.
- 4.12. Scope 1 and 2 decarbonisation is often capital-heavy; it requires significant upfront financing to improve the value of existing assets. The energy savings, particularly in light of expected energy prices, will then lead to a return on investment. Reducing energy consumption has become a vital action in improving the sustainability of university operations and to mitigate future financial risk.



#### **Carbon Net Zero Delivery Plan**

- 4.13. Indirect Scope 3 GHG emissions make up 78% of the university's overall carbon footprint.
- 4.14. Indirect carbon emissions can arise from a range of sources: mostly from the university's supply chain, but also from downstream activities from operations such as products sold in the retail outlets, the energy of buildings leased to third parties and the emissions arising from investments.
- 4.15. Scope 3 decarbonisation offers a different challenge to its Scope 1 and Scope 2 GHG emissions counterparts. Scope 1 and Scope 2 can be dealt with via capital-heavy tangible projects that see direct impact on the university's operational GHG emissions. Scope 3 however, requires transformational changes to operations and working culture. Changes to the way items are both purchased and disposed of, travel, and how all activities are justified is essential if the necessary decarbonisation required to keep global temperatures below the 1.5-degree threshold can be achieved.
- 4.16. As a result, the university's Carbon Net Zero Delivery Plan takes a different approach. The plan focuses on making sustainable behaviours cost-effective, accessible, and convenient, alongside the upskilling and education of all stakeholders, to raise the profile of sustainable choices.



- 4.17. BGS and Travel remain high-priority areas for action. To mitigate the risk that current culture and practices may prevent the required decarbonisation, a series of five programmes across BGS and Travel have been developed, which are all underpinned by a sixth programme focusing on pan-university culture change (Figure 8).
- 4.18. Travel and procurement comprise carbon intense activities with significant opportunities for carbon reduction. A lot of work is taking place on reducing the need to travel, particularly abroad and where flying is the current norm.
- 4.19. The collection of product and supplier specific emissions data from suppliers is also a priority in order to inform procurement decisions internally and support the university's supply chain to set and achieve their own sustainability targets.
- 4.20. Figure 9 represents the target Scope 3 decarbonisation trajectory to 2030 where a reduction of 42% in GHG emissions to the 2018/19 baseline is expected.
- 4.21. The development of the Carbon Net Zero Delivery Plan raised some challenges around data reporting that are due to be addressed in Quarter 1 of the reporting year 2022/23. These changes will mitigate risks presented around misalignment to the rest of the higher education sector regarding reporting boundaries and conventions for carbon accounting.

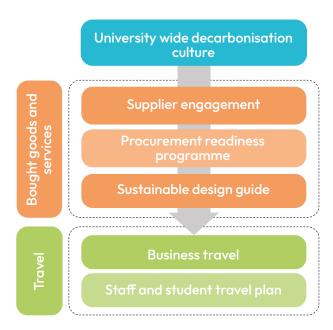
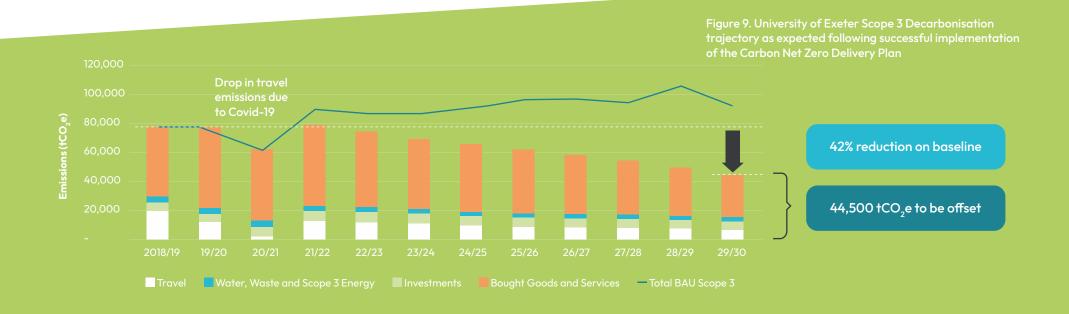


Figure 8. 6 Programmes that make up the University of Exeter's Carbon Net Zero Delivery Plan





# 5. Risk Management

- 5.1. Climate-related risks are quickly becoming widely recognised as vital for organisations to mitigate in order to remain successful. More broadly, Environmental, Social and Governance (ESG) factors are used increasingly as a measure of an organisation's success alongside the likes of financial stability<sup>4</sup>.
- 5.2. There are huge parallels between sustainable practice and business viability, often bringing significant opportunities including, but not limited to, the following:
  - Increasing financial stability
  - Stakeholder satisfaction (for the University of Exeter, this includes students, both present and prospective)
  - Talent recruitment
  - Operational efficiency
  - Investor attraction
- 5.3. As part of the E&CE response efforts are being made to address risk and opportunities together, as there are often overlaps. One of the major methods for identifying both risk and opportunities is via an Environmental Management System (EMS), externally certified in line with ISO14001.
- 5.4. The scope of the EMS covers departments associated with campus infrastructure and operations, where exact scope boundary needs to be realigned to the revised organisational structure this academic year.
- 5.5. The Corporate Risk Register includes climate-related risks, where risks identified are owned at the highest level of the university: by the Provost and Registrar. This ensures that mitigation of these risks is addressed as a priority alongside the other strategic ambitions within Strategy 2030<sup>5</sup>.

5.6. A high-level RAG (red, amber, green) assessment of the risks included on the E&CE Corporate Risk Register is presented in Table 3. Corporate climate-related risk summary

Table 3. Corporate climate-related risk summary

Corporate Risk	RAG
Failure to embed sustainability into pan-university strategy	
Failure to identify accountability, responsibility and board-level sponsors for climate-related activities pan-university	
Failure to embed climate-related control measures in board-level briefings and strategic agendas	
Failure to manage climate-related risks	
Failure to deliver on climate-related targets and commitments	
Failure to manage carbon growth	
Disruption to supply chain from external factors out of the university's control	
Failure to adapt operations in line with external factors, including climate-change	

5.7. It is important to consider that the RAG status here is in the context of all risks presented to the university. Because an identified risk does not carry a red rating, does not mean it will not be actioned as a high priority for the university, but instead means it is unlikely to imminently prevent operations.

<sup>4 49%</sup> of millennial millionaires now invest based on social factors.

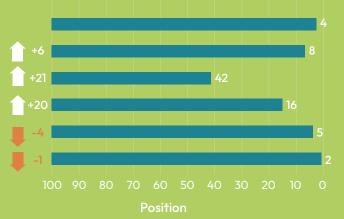
<sup>5</sup> www.exeter.ac.uk/about/strategy2030



#### **Benchmarking**

- 5.8. Benchmarking is important to measure progress in the context of the Higher Education sector, and to allow external stakeholders to evaluate the university's progress on climate-related activities.
- 5.9. The university has identified five benchmarking platforms that align best to its strategic sustainability aims and resonate best with the demands of key stakeholders:
  - Times Higher Education (THE) Impact Rankings. One of the larger benchmarking channels available with 1,406 institutions signed up, THE Impact looks at the institutions contributions to a minimum of four of the UN SDGs, however, the university chooses to submit to all 17. The University of Exeter achieved a 1st place ranking amongst the Russell Group universities for the following SDGs: SDG1: No Poverty, SDG6: Clean Water & Sanitation, SDG7: Affordable & Clean Energy, SDG10: Reduced Inequalities, SDG13: Climate Action.
  - **People and Planet.** Ranks 154 organisations against 13 different sustainability and ethics criteria. Lead by students, for students.

- AUDE SLS. A self-assessment sustainability evaluation tool focused on four main areas: Leadership and Governance, Partnerships and Engagement, Learning, Teaching and Research, Estates and Operations.
- **SDG Teach-In.** A scheme covering 134 organisations across 17 different countries assessing the SDG contributions from educators.
- **SOS-UK Carbon Targets.** A survey-style evaluation of the ambition of carbon and sustainability targets published by an organisation.
- 5.10. Figure 8 presents the current position of the University of Exeter within each of these benchmarking channels, except for AUDE SLS which does not provide a ranking.
- 5.11. AUDE SLS ranks institutions from Bronze up to Platinum against each of the four criteria assessed, the results of this are shown in Table 4. The university's target is to achieve platinum status across all categories before 2030.



2022 THE Impact (UK Overall)
2022 THE Impact (World Overall)
2021 People and Planet University Leagu
2022 SDG Teach In: Students Reached
2022 SDG Teach In: Educators Pledged

Criteria	Result
Leadership and Governance	Platinum
Partnerships and Engagement	Gold
Learning, Teaching and Research	Silver
Operations	Gold

Table 4. AUDE SLS benchmarking status Criteria Result

Figure 8. University of Exeter benchmarking positions for 2021/22



