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Scope 3 Emissions Reporting Experience

Bournemouth University (BU) were keen to include scope 3 emissions into the 2019 - 2030/31 Carbon Management Plan. Previous versions had focused on scopes 1 and 2, and for the BU's Climate and Ecological Crisis Action Plan we included elements of scope 3 to align with the Greenhouse Gas Protocol's Accounting and Reporting Standard. Scope 3 areas present opportunities for staff and students to make decisions and impact the carbon footprint of the university and give us a wider view of the true environmental impact of BU. Having a full picture of all three scopes helps to show the scale of the problem and most importantly enables us to prioritise and plan what we can do to reduce emissions.

Baseline year 2018/19

The data available to us in 2019 was limited, but we were able to calculate several important scope 3 emission areas we felt represented a large part of our indirect emissions including business travel, water, waste and elements of daily commuting.

This included transport emissions associated with our bus contract known as the UNIBUS. By recording the litres of fuel used, we were able to use this data along with the DEFRA carbon factors for the fuel type to calculate emissions associated with students, staff and the public travelling on our bus network, mainly to get to or between our campuses.

Since 2019, we have reported emissions associated with business travel by air and rail. Business travel bookings go through a central travel management company who supply data such as number of trips booked, miles travelled, and emissions associated with each booking. We have also published guidance for staff on making more sustainable choices with their travel to help reduce emissions in this area.

Operational and construction waste data is included in our reported scope 3 emissions using the actual tonnage collected from our sector-leading 'pay-by-weight' waste contract as part of a framework with several other South Coast universities. Reducing overall waste produced and ensuring waste goes in the right bin is an important area where we can engage the students and staff, so that everyone can feel as though they are doing their part.

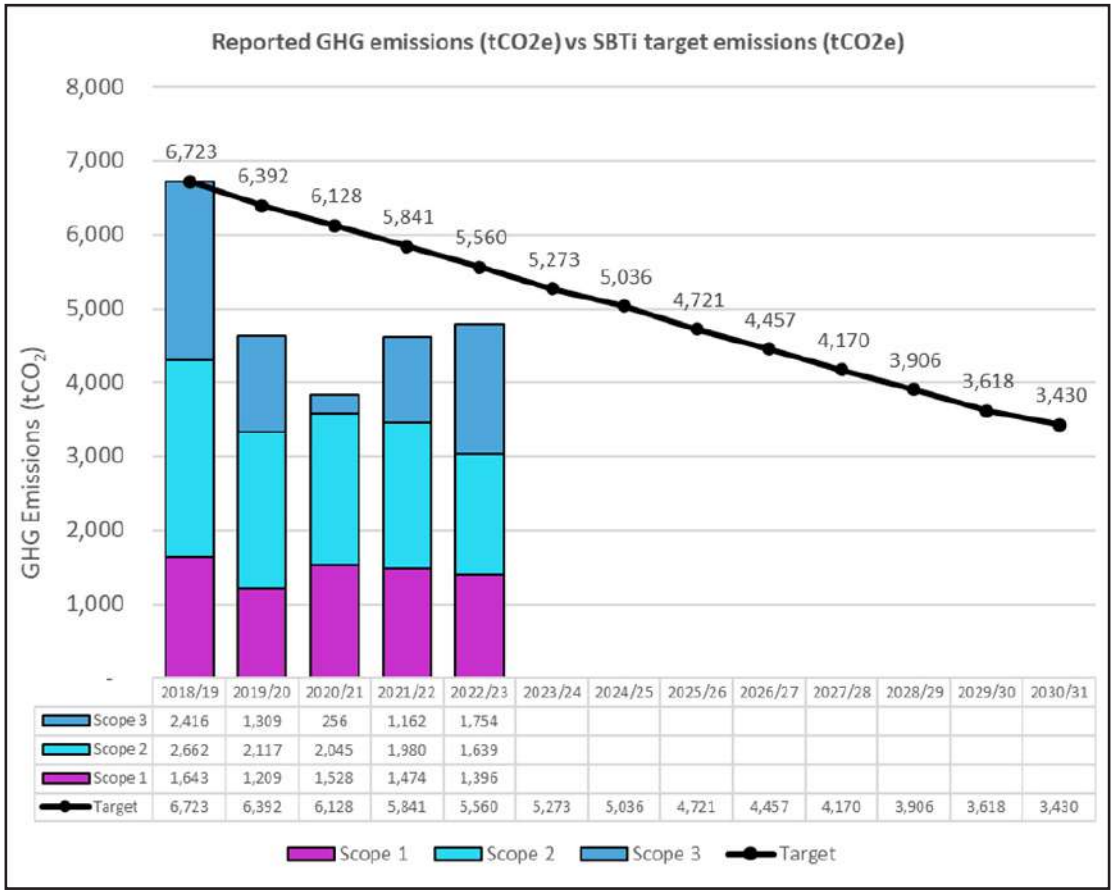
In order to reduce overall volumes of waste we have introduced schemes to reduce disposable coffee cups and encourage students to refill their water bottles on campus through our status as a 'Refill Campus' with City to Sea.

Emissions associated with water and wastewater are also reported, calculated using manual meter reads and DEFRA carbon factors.

Since our 2018/19 baseline, we have included these scope 3 elements in our emissions reporting annually and seen big changes, mainly due to factors outside of our control. Particularly, the impact of the Covid-19 pandemic on commuting and business travel, and this

can be seen on the graph below from our 2022-2023 annual report.

The graph shows our progress to our 50% reduction target and the big changes we have seen in reported scope 3 emissions between 2018/19 and 2022/23. You can read more about our reported emissions in our 22-23 Annual Progress Report.



	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Scope 3	2,416	1,309	256	1,162	1,754								
Scope 2	2,662	2,117	2,045	1,980	1,639								
Scope 1	1,643	1,209	1,528	1,474	1,396								
Target	6,723	6,392	6,128	5,841	5,560	5,273	5,036	4,721	4,457	4,170	3,906	3,618	3,430

Continuous review

It was always our intention to keep scope 3 under review and in the reporting year 2021-22 we were able to make some improvements to our data by adding in emissions from travel associated with BU open days. This was calculated by collecting postcode data and transport methods from open day participants so that we could multiply the distance travelled by the correct DEFRA carbon factor. We also moved the emissions associated with electricity transmission and distribution into our scope 3 reporting. In order to add these into our reporting, we had to collect the data from every year back to our baseline year of 2018/19 so that our carbon footprint is comparable over time.

In January 2023, new guidance was published for Universities by the EAUC called the Standardised Carbon Emissions Framework (SCEF). This identifies three levels of data accuracy for reporting categories of emissions; advanced, intermediate and basic. To ensure continuous improvement of our reporting and to align ourselves with best practice for our sector, we reviewed our data collection methods against the new framework and found that our existing reported scope 3 areas met the advanced level.

As a result of the SCEF we are looking to include additional areas in our reporting which currently meet the basic level of data accuracy, which we hadn't been comfortable including before. An example of this is staff and student daily commuting; emissions are based on survey responses from our annual travel surveys which collect data on commuter distances and travel methods. As the survey collects responses from just a sample of staff and students, the results can then be extrapolated to give estimated emissions for all staff and students across the university. To address commuter emissions, we have made significant progress as part of the university's travel plan, which includes investment in active travel facilities such as showers and changing rooms to support cycling and walking, as well as providing secure cycle facilities and campaigning with local government for improved cycle lanes.

We are also looking to expand the scope of our reported business travel emissions to include those from hire cars and coaches. This would incorporate the road travel of our university sports teams as they travel to fixtures, as well as business travel by staff. Initial

calculations in 2022/23 suggest this accounted for twice the emissions of business travel by rail. We can include this by requesting the annual mileage data from the hire car companies.

Specific to universities is student home travel, which accounts for the trips that students make between their homes and the university over the course of the academic year. This can be split into two sub-groups, international student travel and domestic student travel. Initial calculations estimate that these figures may be almost a quarter of our entire carbon footprint for the 2022/23 year. For these calculations, BU have used the Domestic and International Student Relocation Travel Emissions Calculator Tool developed by the University of Aberdeen in collaboration with EAUC Scotland. The input for the tool is student home country data, which is collected from our student enrolment team. Domestic student travel emissions are estimated using the postcodes of UK based students and an assumed number of trips they make between their home and the university each year. This is estimated using the responses collected in the annual student travel survey.

Challenges

The big area we are grappling with is emissions from our supply chain, including purchased goods and services, transport for delivery and capital construction projects. This category represents the largest proportion of our scope 3 emissions by far. This has been calculated for us by our purchasing consortium using standard industry codes and spend data. However, this is a fairly blunt measurement which doesn't account for actual improvements we might make to improve sustainability of our supply chain (for example using a local supplier or encouraging our security contractor to use electric vehicles). If we don't reduce £ spend the carbon footprint won't change unless the whole sector code factor changes. This is an area of research by universities who are working together with external parties to explore other methods to gather supply chain emissions data.

Finally, there are other areas we are investigating, where we are in the process of gathering data. This includes financial investments and pensions, student accommodation (as most BU accommodation is run by third parties from whom we have requested data), staff homeworking, staff expenses claimed from driving, leased buildings and sold products.

Conclusion

Scope 3 indirect emissions are a large and important part of BU's carbon footprint, where the choices of our students and staff can make a difference. Travel choices both for business and commuting do make a difference and when scaled together will help reduce fossil fuel emissions. For our supply chain emissions, staff choices can make a big impact but often choosing not to buy or not to travel can be difficult. Working with our suppliers at all stages, from procurement into contract management, represents a big opportunity to reduce emissions from our supply chain, but current reporting methods don't show the results of collaborative efforts just yet. We will continue working with the sector to determine better ways to collect and report our emissions data and hope to impact all the decision makers across the university to reduce our overall footprint.

Authors' profiles:

Lois leads the Sustainability Team at Bournemouth University where she oversees the delivery of BU's Climate and Ecological Crisis Action Plan to reduce emissions by 50% by 2030/31. Focus for Lois is heat decarbonisation and BU's most recent project is removal of gas in our Business School and replacement with air source heat pumps.

Sally is the Sustainability and Energy Analyst within the Sustainability Team at Bournemouth University. With a background in Mechanical Engineering, Sally is able to address data queries with a logical and technical approach, and works with various stakeholders across the university to bring together multiple aspects of the university's carbon footprint.