

Climate and Ecological Crisis Action Plan



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Foreword by John Vinney, Vice Chancellor, Bournemouth University

The climate and ecological crisis is a real threat to life on our planet and the future of the world as we know it. We are already seeing the impact of climate change with more frequent extreme weather events. Humans are destroying the natural world, both directly and as a result of global warming. These changes are affecting the natural balance that has enabled us to thrive on earth and increasingly there will be an impact on the availability of water, food and other resources.

As a university we have a responsibility to ensure that we as a community contribute to tackling these issues, both directly in managing our own behaviour as well as through education, research and engagement with practice and industry. Our BU2025 vision and strategy, based on the Fusion of education, research and practice, support us in this effort, as will living our BU values of responsibility, excellence, inclusivity and creativity.

This Climate and Ecological Crisis Action Plan (CECAP) sets out our vision to achieve net zero emissions by 2030/31 across all our activities. We recognise this is an ambitious target, requiring us to cut our emissions as rapidly as possible and to invest in high quality offsets for any remaining emissions. This level of ambition requires all of us to adopt more sustainable lifestyles and change our mindset, whether that is reducing how much we travel, changing our diet or thinking about what we buy and who we buy it from.

We have already achieved a lot: investing in our estate and people has resulted in a 45% reduction in emissions over the past ten years. This CECAP sets out the path for the next steps. We will embed our response to the crisis across all our activities. The CECAP is a comprehensive living document and we will need to develop our approach to adapt to changes over the next ten years.

I believe that, working together as a community, we can rise to the challenge posed by this crisis to help deliver a better, fairer world for all.



Professor John Vinney
Vice-Chancellor
Bournemouth University

Section 1: Setting the scene

1.1 What is the climate and ecological crisis?

It is clear that humankind is facing our greatest threat in the form of the climate and ecological crisis. Our destruction of the very life support systems (See Figure 1) we depend upon is already changing the natural world. From increased extreme weather events to toxic pollution levels, we have felt widespread impacts from these changes already, including crop failures, severe health impacts and new threats, destroyed human communities, a wave of eco-anxiety and, of course, the widespread loss of life. Such impacts will continue, and are predicted to get notably worse, unless we significantly change our course.

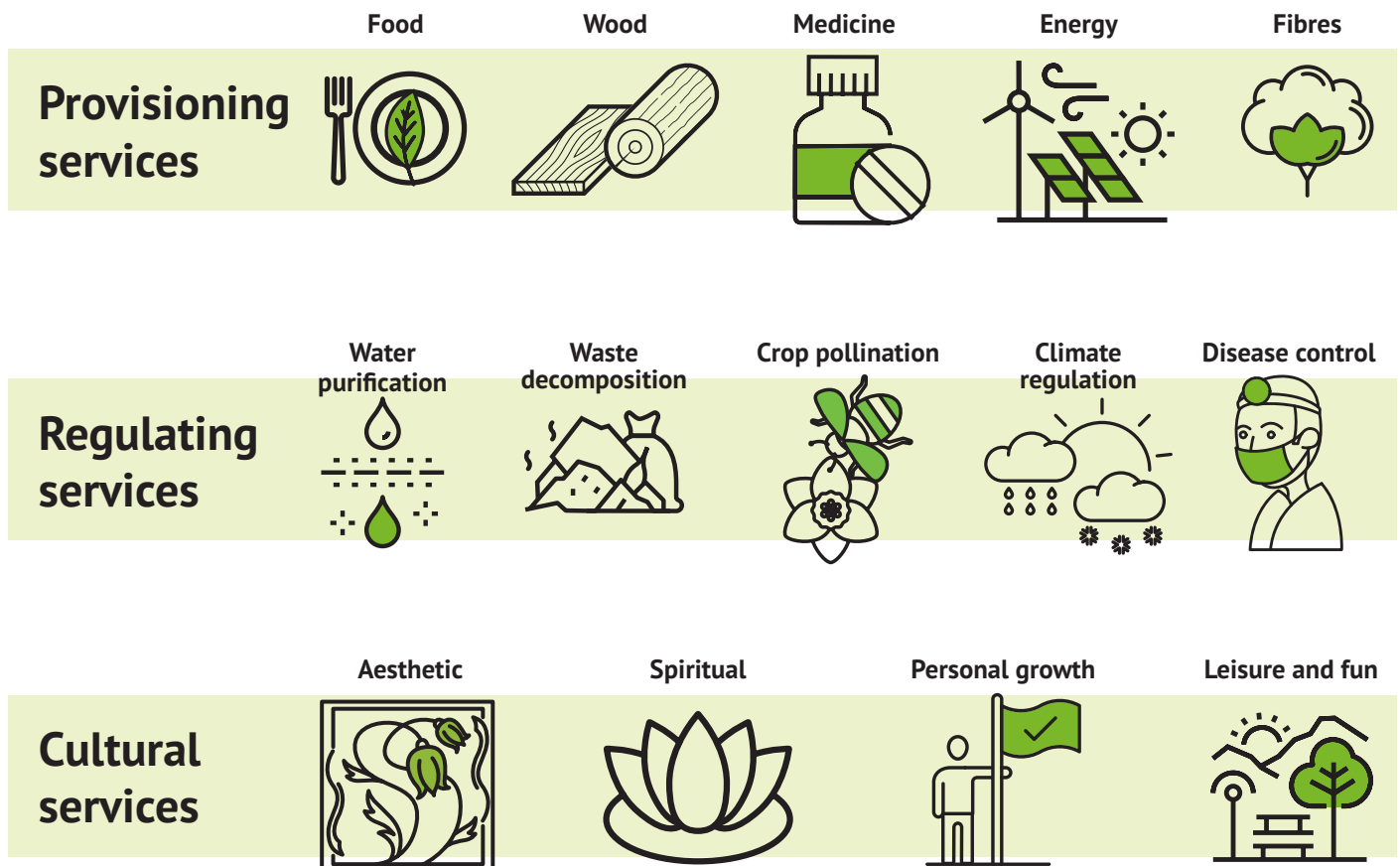
In October 2018, the Intergovernmental Panel on Climate Change (IPCC) report spelt out the need for urgent action to reduce carbon emissions to keep increases in average global temperatures between 1.5°C and 2°C. The Paris Agreement, in which countries pledged to adhere to these limits, recognised that climate change is expected to result in an increase in severe weather disruption among a myriad of other impacts, which many nations are facing already.

Nature itself is also facing massive challenges – the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) are clear that the biosphere

on which we rely is being altered to an unparalleled degree at all scales, and biodiversity is declining faster than at any time in human history. Nationally in the UK, in line with global trends, the 2019 State of Nature report published by RSPB indicates that just under half of species abundance decline since 1970 has occurred in the last 10 years¹. The decline of biodiversity is a catastrophe even without human harm, yet it is not without this harm, in fact threatening the economies, livelihoods, basic necessities and quality of life of people everywhere. The IPBES also say that goals to conserve nature and use it sustainably cannot be met by current trajectories.

In June 2019, the UK Government adopted a binding legal target to achieve net zero greenhouse gas emissions by 2050 (including an 80% reduction in emissions based on 1990 baseline) based on the recommendation of the Committee on Climate Change (CCC)². The CCC report stated that a transition to a near zero carbon economy is now technically achievable, recognising the scale of the change to be enormous and the need for it to happen at remarkable speed across all sectors.

Figure 1: What do we get from ecosystems



1 www.rspb.org.uk/globalassets/images/campaigning-and-positions/let-nature-sing/birdsong-takeover/pdf/sonr/rspb_state-of-nature_summary-report_uk.pdf

2 www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming

Section 2: The BU journey

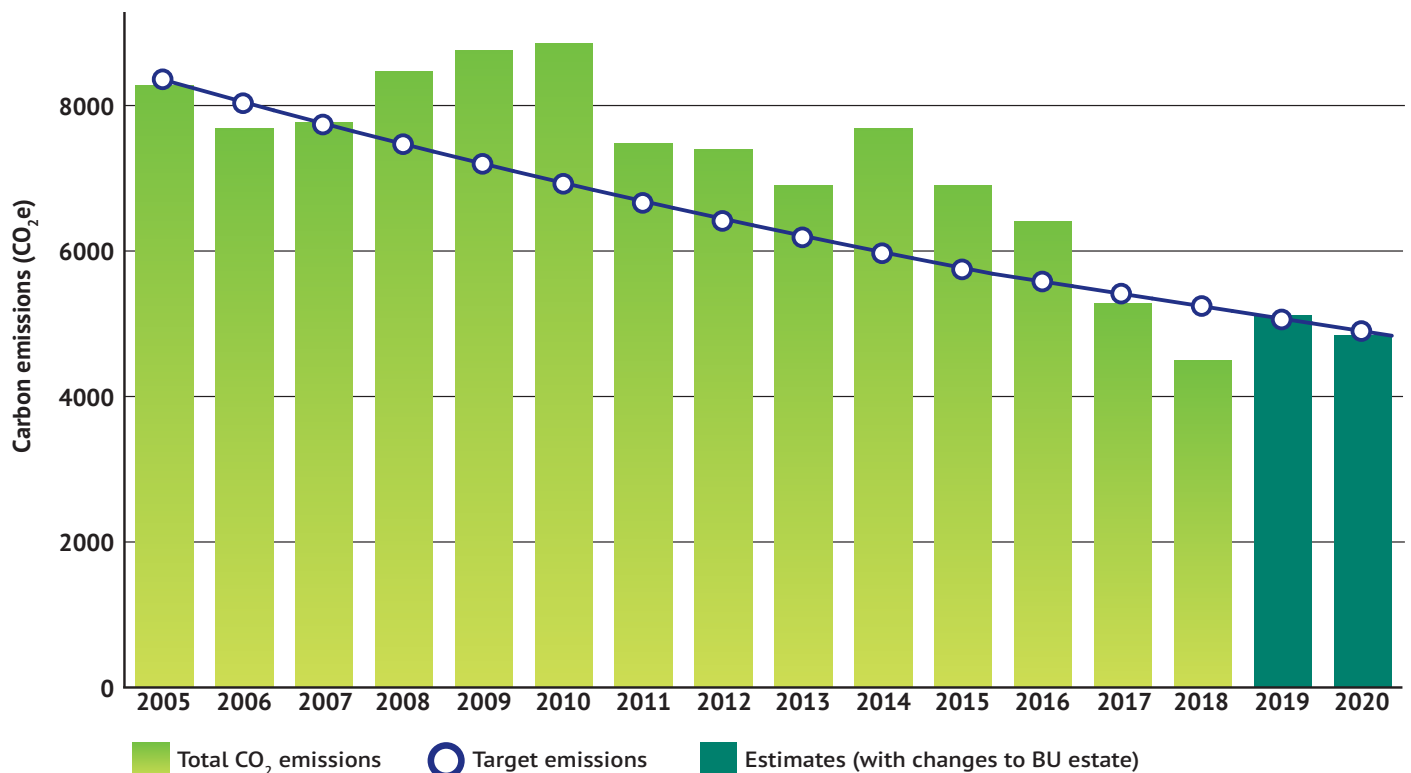
2.1 What has BU done so far?

BU's implementation of its Biodiversity Policy and action plan has improved the ecological value of habitats on its campuses. All new buildings have integrated biodiversity net gain features, such as green roofs and bird boxes.

BU has also implemented carbon management plans (CMPs) since 2010 and set a target to reduce emissions by 40% by 2020/21. BU has been extremely successful in driving down emissions, achieving a 45% reduction over the

past fifteen years (See Figure 2). This was achieved through investing in our estate and infrastructure, staff and student engagement and the decarbonisation of the national electricity grid. Achieving the 40% reduction target two years early triggered the development of the CECAP, and our response is shaped by our need to take urgent action to address the crisis.

Figure 2: Actual vs predicted greenhouse gas emissions from 2005/06 to 2020/21



2.2 What do we want to do now?

BU recognises its vital role as an educator, research base and community in helping tackle the crisis. The CECAP sets out a comprehensive plan of action, addressing both

mitigation and adaptation to the crisis and is driven by our set of BU community values.

The target of the CECAP is to achieve net zero emissions across all activities of the business by 2030/31.

Figure 3: United Nations Sustainable Development Goals



2.3 How does the CECAP fit into BU's strategy, BU2025?

In BU2025, we define BU as a catalyst for sustainable social, environmental and economic growth and development. We lead thinking on sustainability and support the development of the region and, beyond that, we enrich society by having a significant impact on global challenges as set out in the United Nations Sustainable Development Goals (SDGs).

The climate and ecological crisis impacts across all 17 SDGs (See Figure 3): it is an issue of social justice, human

rights and international development as much as it is an environmental and technological one.

As a community, BU has a set of four shared values defined in our vision and strategic plan: responsibility, creativity, inclusivity and excellence. These values are embedded in and expressed as part of this CECAP (See Figure 4).

Figure 4: BU Values

<p>Responsibility</p> <p>Take action to address the crisis.</p> <p>Prioritise emissions reduction before offsetting.</p> <p>Seek and influence for positive change.</p>	<p>Inclusivity</p> <p>Engage and include the entire community to take action together.</p> <p>Ensure equal distribution of benefits and costs.</p> <p>Act for sustainability across all SDGs.</p>	<p>Creativity</p> <p>Take inspiration from the non-human world and live in harmony with nature.</p> <p>Adopt future-facing processes, practices and lifestyles.</p> <p>Be proactive, innovative and collaborative.</p>	<p>Excellence</p> <p>Take strategic, urgent and sustained action.</p> <p>Set an example to our community.</p> <p>Strive for continual improvement, learning and sharing good practice.</p> <p>Maximise opportunities to enrich society.</p>
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Section 3: Our vision and aims

3.1 What is our vision?

Our net zero vision is a BU community that recognises the need to live in harmony with the natural world to protect the survival and wellbeing of all communities and takes action to enrich society for the benefit of people and planet.



Lead by example

We lead by example at all levels, embedding our response to the crisis within all governance processes, policies, reward systems and structures, and we deliver actions to both mitigate, and adapt to, the crisis.



Rapid emissions reduction

We reduce our greenhouse gas emissions as rapidly as possible across all activities, with particular focus on energy consumption, transport and capital development, and investing in high quality carbon offsets, where necessary, to achieve the net zero target.



Maximise academic opportunities

We align our curriculum, and maximise research opportunities, in order to contribute innovatively to tackle the crisis in its broad scope across all UN SDG's.



Caring for our ecosystems

We invest in nature-based solutions to help mitigate and adapt to the crisis where we can and cultivate in our community an appreciation and connection with nature, so we can take stronger action to protect it.



Community Action

We engage with and support our staff and students so we can all take action as a community, in both our professional and personal lives, to help tackle the crisis creatively and collaboratively.

Section 4: Our route to net zero emissions by 2030/31

4.1 A note on greenhouse gas emissions

Greenhouse gas (GHG) emissions sources are categorised into three scopes to ensure responsibility for emissions can be accurately allocated and so that emissions are not double counted across organisations (See Figure 5).
In 2018/19, BU's GHG emissions totalled 5,809 tCO₂e³ (See Figure 6). It is important to note this baseline figure

does not include several data sets, such as procurement, commuting and new builds, as these data are either not available or are not accurate enough to include at this time. Implementing the CECAP will improve data capture and the baseline will increase as these robust data sets become available.

Figure 5: GHG emissions

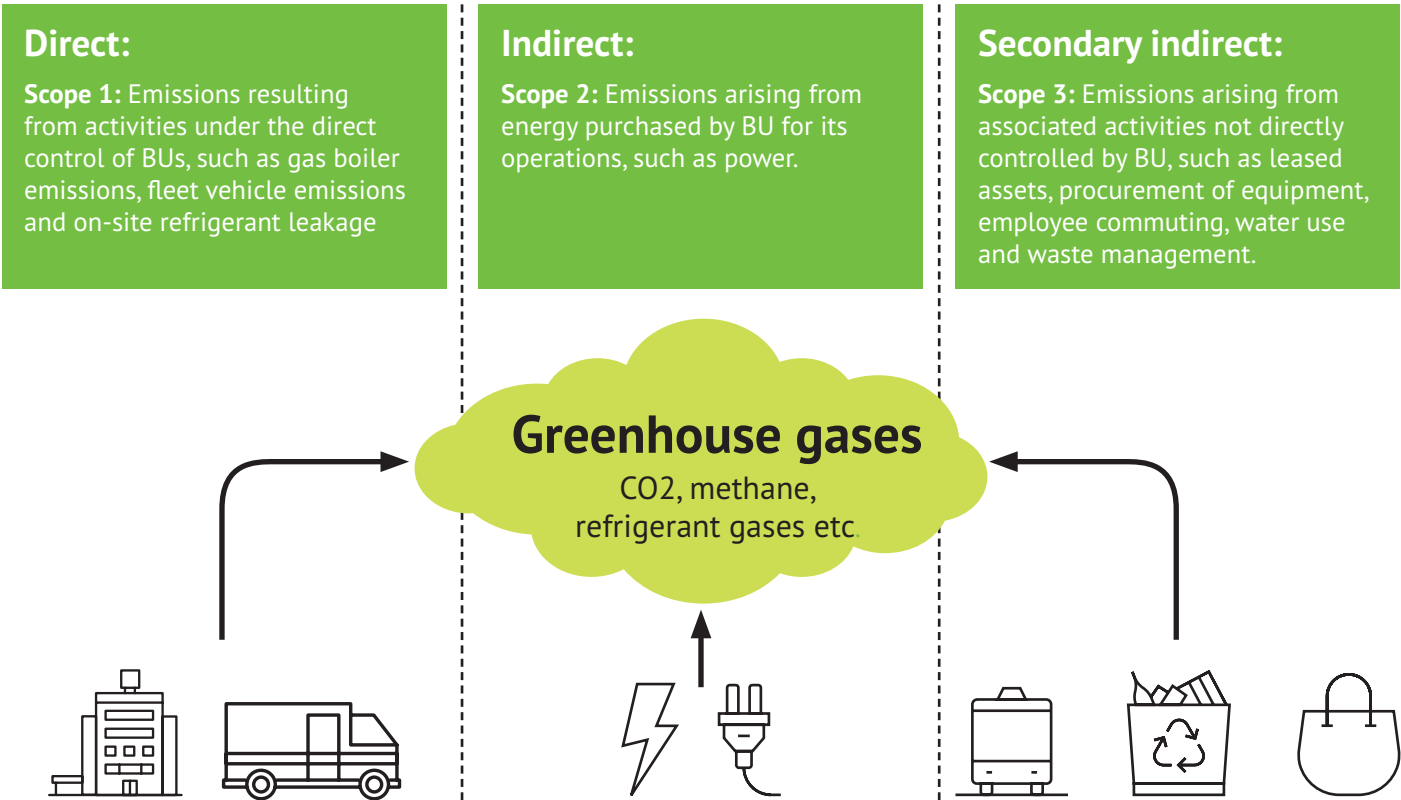
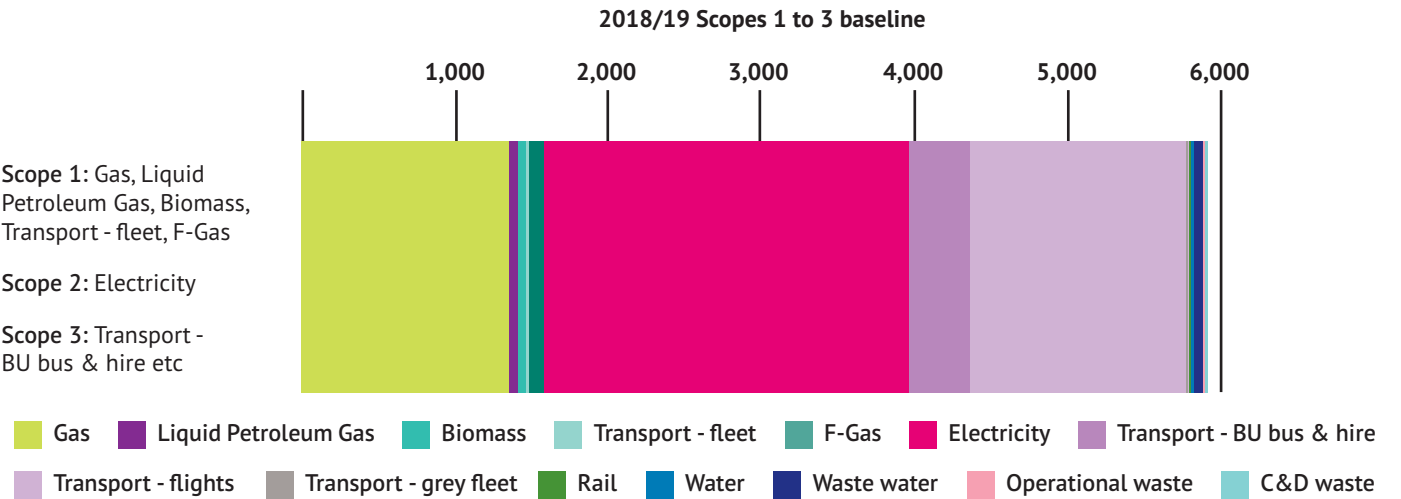


Figure 6: Baseline emissions 2018/19



³ Carbon dioxide equivalent (CO₂e) is a measure used to compare the emissions from various greenhouse gases (the man made emissions of carbon dioxide, methane, nitrous oxide and F-Gases) based upon their global warming potential.

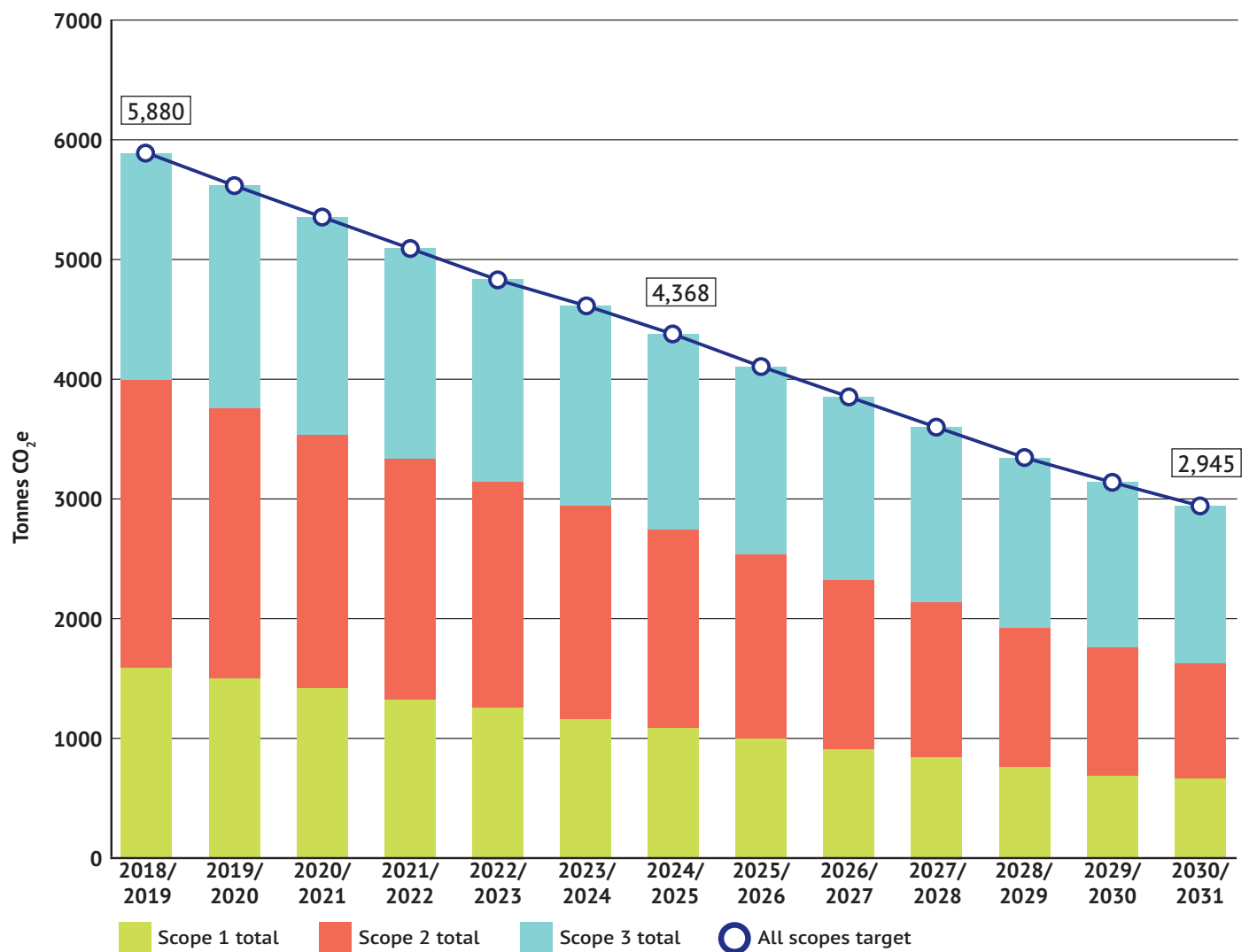
4.2 What is our net zero target?

A 'net zero' target means reducing gross emissions through decarbonisation (e.g. reducing energy consumption or generating on site renewable energy) and then investing in offsetting of any residual emissions to arrive at a net zero position.

To allow us to understand how far we should aim to decarbonise before using offsetting we have set a Science

Based Target (SBT)⁴ which establishes a trajectory to 2030/31 and beyond (See Figure 7). These targets aim for a 28% and 50% emissions reduction by 2024/25 and 2030/31, respectively. If BU adopts the most far reaching decarbonisation measures, as set out in the CECAP, it could reduce emissions to about 2,500 tCO₂e by 2030/31.

Figure 7: SBT trajectory



4.3 A note on offsetting

We will need to offset any residual GHG emissions to achieve the net zero emissions target. Our offsetting strategy will be guided by the following principles:




- To fully play our part in sufficiently mitigating the climate and ecological crisis, it is reasonable that we offset any emissions above the SBT decarbonisation trajectory which means starting to offset sooner rather than waiting until 2030/31.
- Maximise the potential non-carbon benefits that some offsetting products offer, especially as this will help align our approach with wider SDGs.
- Adopt a polluter pays approach to support the financial cost of offsetting and help increase awareness and shared responsibility.

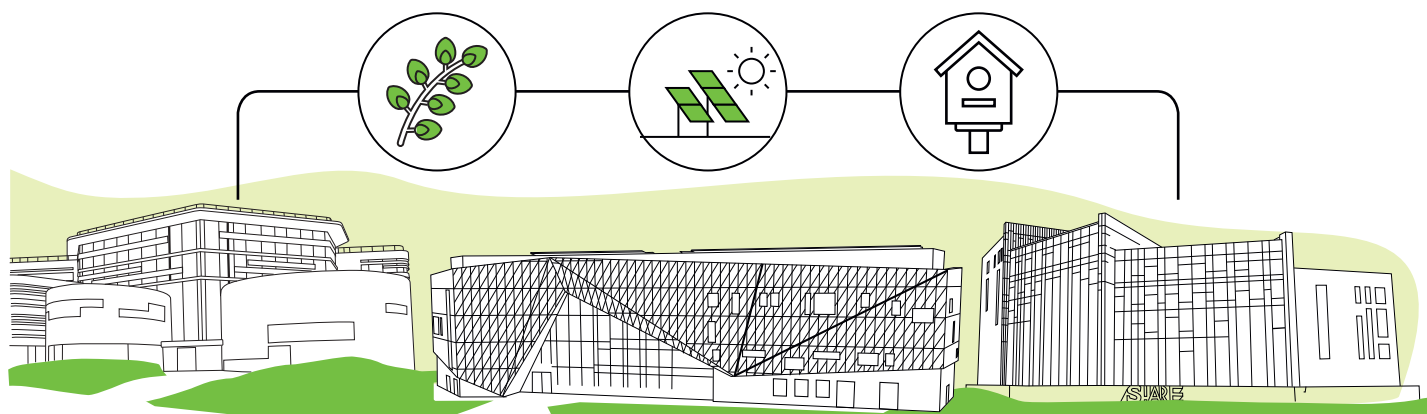
⁴ Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered "science-based" if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C) <https://sciencebasedtargets.org>

4.4 Framework to becoming a net zero business

Setting such an ambitious target requires the whole BU community to adopt more sustainable practices, and the CECAP sets out a framework to embed BU's response to the crisis throughout the business.

Beyond technical fixes, these four factors will be fundamental if we are to successfully address the climate and ecological crisis:

	People Mobilising the entire BU community to support our efforts will greatly enhance our impact when tackling the crisis.
	Nature Recognising and reinforcing the link between people, nature, and the climate will strengthen our response to the crisis and encourage values-driven engagement as a global community.
	Resources Recognising that, over the next ten years, considerable resources will be required to successfully transition to net zero emissions and a position which works with nature, and committing to meeting this demand.
	Risk Mitigating, and adapting to, the climate and ecological crisis to minimise risk, which is both physical and financial, and transition to a zero-carbon future.



4.5 Our CECAP objectives

The CECAP builds on all our work to date including previous CMPs and the Travel Plan by setting out a broad framework for action captured in the following objectives.

The objectives should act as touch points over the period to 2030 to enable us to check-in on progress and ensure we are tackling the crisis relevantly and effectively.

	Objective	Response	Key recommendations
1	Demonstrating sustainable leadership	Staff across the business will align our governance structures with addressing the crisis and then commit to their implementation, even when facing challenges.	<p>Incorporate net zero responsibility into Committee/Group Terms of References</p> <p>Align all policies and reward schemes to our net zero target</p> <p>Incorporate our net zero target into research award criteria</p> <p>CECAP Group to develop offsetting strategy</p> <p>Create student and staff assembly</p>
2	Aligning education and research with our crisis response	Our academic community will align education and research with the crisis, in terms of appropriate programme content, research outcomes, and the way we operate, including increasing crisis awareness and literacy.	<p>Continue to align programmes with SDGs and include the climate and ecological crisis in all levels of programmes in the indicative content of at least one unit per level by 2022/23</p> <p>Reward staff for aligning research with the crisis</p> <p>Encourage staff and students to use BU as a Living Lab (Note: A Living Lab is defined as rigorous campus-based research into a real world sustainability problem with operational and academic partners, data collection/analysis, formal and informal learning activities and measurable outcomes www.eauc.org.uk/launch_of_eauc_living_lab_programme)</p>
3	Implementing nature-based solutions (NBS) to address the crisis	Implement opportunities to create biodiversity net-gain on each of our sites and encourage the BU community to actively connect with nature.	<p>Incorporate NBS into estate development</p> <p>Encourage staff and students to connect with nature on and off campus</p>
4	Reducing GHG emissions through engagement and behaviour change	To mobilise the BU community to actively support the goals of the CECAP by developing and implementing a range of inspiring and educational engagement activities.	<p>Implement a staff and student charter</p> <p>Implement an annual CECAP communication plan</p> <p>Reward staff and students for taking positive action for the environment</p> <p>Engage with suppliers on their net zero aspirations</p> <p>Continue to use technology to support new ways of working remotely</p> <p>Introduce staff and student development programmes, such as carbon literacy and climate resilience</p> <p>Continue staff and student engagement programmes</p>

5	Rapidly reduce GHG emissions through technology solutions	To achieve a 50% reduction in emissions by the end of AY2030/31 against a 2018/19 baseline by maintaining a science-based decarbonisation trajectory, and better if possible.	<p>Implement projects to reduce emissions across all activities</p> <p>Continue to install renewable energy and water technologies</p> <p>Optimise building energy, water and use performance</p> <p>Move from gas to electricity for heat & hot water</p> <p>Implement a building cooling strategy</p>
6	Implementing net zero carbon capital development	Adopt and implement the UK Green Building Council Framework Definition for Net Zero Carbon on all major development projects.	<p>Update Sustainable Construction Policy with net zero and NBS commitments</p> <p>Implement net zero principles at design stage for construction projects</p> <p>Ensure budget envelope includes net zero commitments including offsetting embodied carbon and waste emissions</p>
7	Managing climate change risk	<p>To implement climate change adaptation measures, such as nature-based solutions, as described in the climate change risk register.</p> <p>To quantify risks according to the Taskforce on Climate and Financial Disclosures guidance and include in the annual financial report.</p>	<p>Incorporate mitigation and adaptation measures into risk management processes across BU</p> <p>Start to quantify and report climate and ecological crisis financial costs</p>
8	Data management and reporting	To develop and implement data capture and reporting systems to ensure we make informed decisions and our reporting aligns with best practice principles.	<p>Investigate software solution to data management and reporting</p> <p>Develop and implement robust data capture for procurement, transport, waste & buildings emissions to set baseline and targets</p> <p>Install additional meters</p> <p>Adopt best practice reporting</p>

Section 5: Implementation and management of the CECAP

5.1 Recommendations and action plan

The CECAP attempts to reach much deeper into BU's organisation and much more broadly across our activities than previous carbon management plans. In recognition of this, we have included a range of recommendations focused on governance, behaviour change, and aligning education and research with our response and wider SDG objectives as well as reviewing all relevant BU policies to ensure they support the crisis response.

We have identified a significant number of recommendations to deliver each of the objectives. The implementation of this action plan will deliver the CECAP.

5.2 Communication and collaboration

We will listen to the views of all members of the BU community to ensure that our action in this global challenge is collaborative, catering for and supporting everyone.

At the same time, we will continue to collaborate with both internal and external stakeholders, in particular with BCP and Dorset Councils who have declared Climate Emergencies. We will also seek opportunities to work in partnership with other groups, such as the EAUC, AUDE, Dorset LEP, Aldersgate Group and COP26 Universities group.

5.3 Resources

Focusing in the early years of the CECAP on refreshing our governance framework will require internal resources rather than capital investment, although their implementation are likely to have capital and revenue impacts.

We will continue to invest in our estate and infrastructure to reduce GHG emissions. Capital funding is available for the next three years, as set out in the current budget and cash flow projections.

The CECAP lists a number of other projects and work will

continue to develop these projects for the remainder of the CECAP and in particular the switch from gas to electricity for heating and hot water.

The CECAP Group will develop and implement the offsetting strategy, which will require additional funding for the selected offsets. The focus in the early years will be on decarbonisation rather than offsetting.

5.4 Risk management

The CECAP is based on a risk management framework and, by maintaining its environmental management system certified to the highest ISO14001 standard, BU has built a strong platform. The addition of certification to the Energy Management standard (ISO50001) will provide a focus on energy use, a key element in continuing to improve energy efficiencies and decarbonise the energy supply. In addition it is proposed to report the climate and ecological risks in line with the Task Force on Financial Disclosures guidance as part of BU's financial reporting.

5.5 Management of the CECAP

The Sustainability Team will co-ordinate delivery of the CECAP and report through the CECAP group, Estates Development, and Sustainability Committees to ULT and the Board (See Figure 8).

It is proposed to set up a student and staff assembly which would meet at least twice a year to hear an account of progress with the CECAP and have the opportunity to discuss aspects of the Plan and make recommendations for its enhancement. This model is based on the approach taken by the UK government in setting up the Climate assembly UK (www.climateassembly.uk).

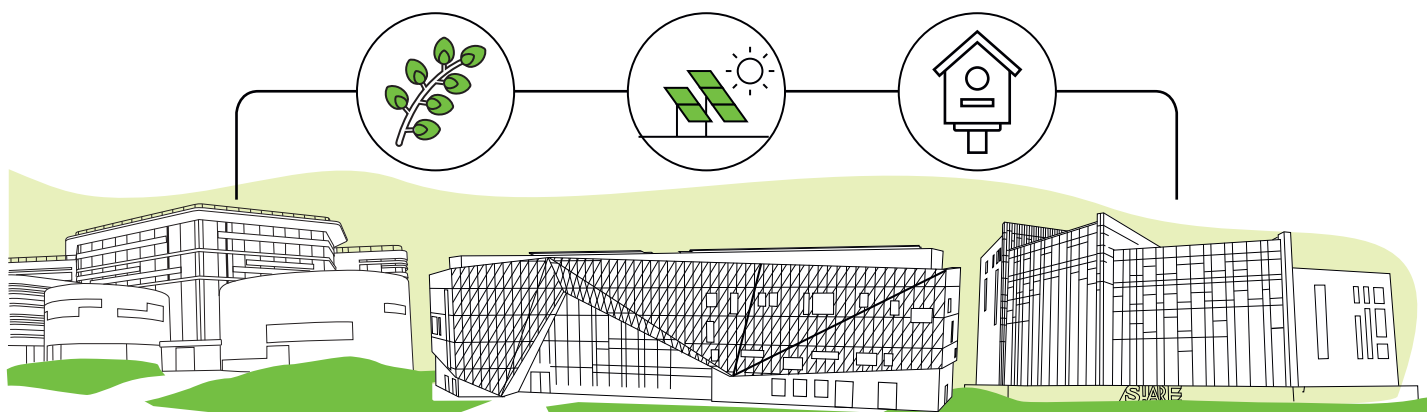
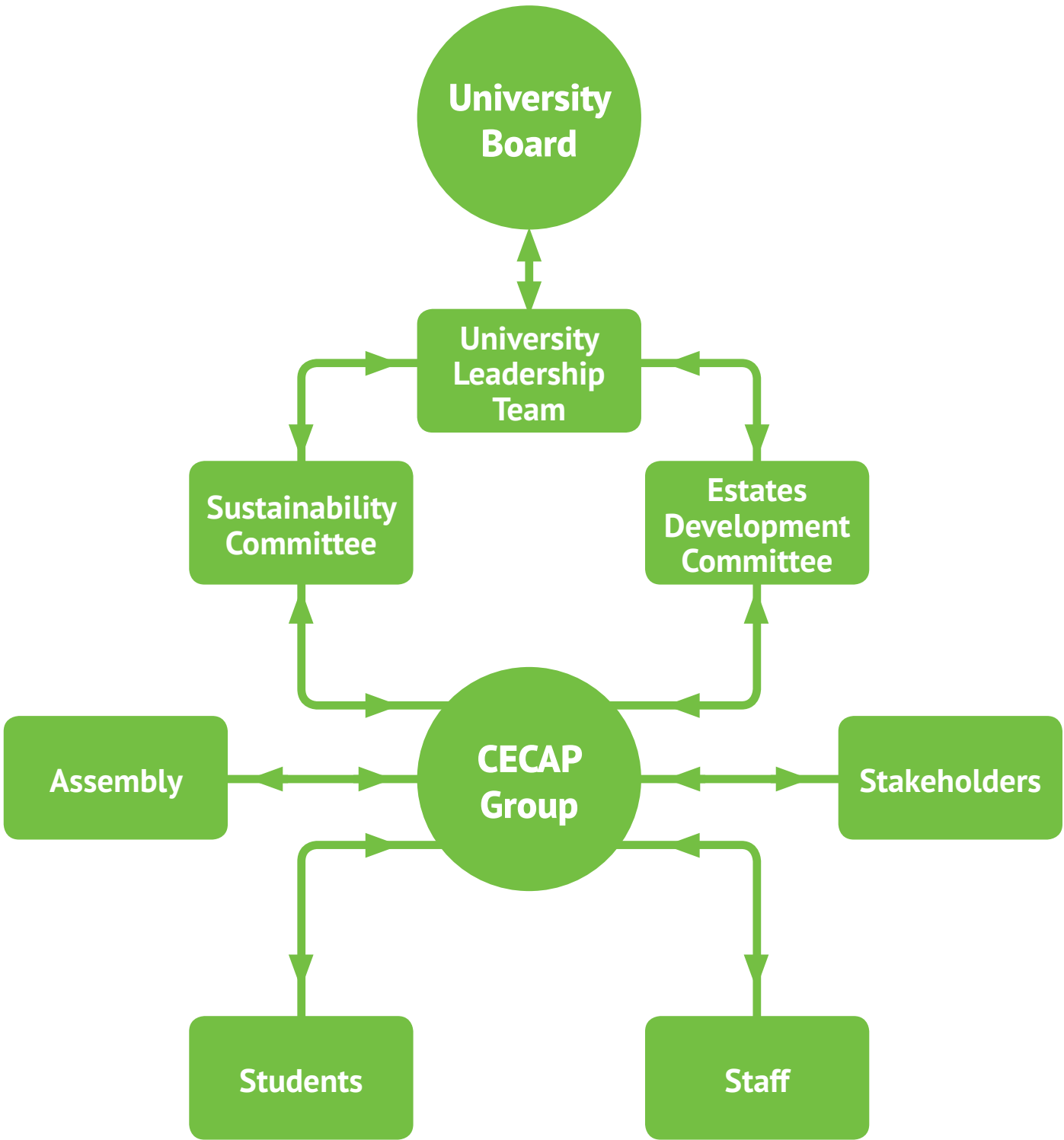


Figure 8: Management structure



Section 6: How will we keep on track?

6.1 How will we know we have been successful?

BU will use the Plan - Do - Check - Act continual improvement model to monitor progress (see Figure 9). We recognise that internal and external factors will continue to shape our response to the climate and ecological crisis and so we will need to keep the CECAP under review and update as necessary.

We will report on progress in a variety of ways, including:

- Annual CECAP report

- Reports to the CECAP group and Estates Development and Sustainability Committees
- Reports for internal and external ISO14001 and ISO50001 audits
- Report to the student and staff assembly

We will also complete a full review as part of the BU2025 review in 2024/25 and so be able to input into the next BU strategy.

Figure 9: Plan – Do – Check - Act



6.2 How can I make a difference?

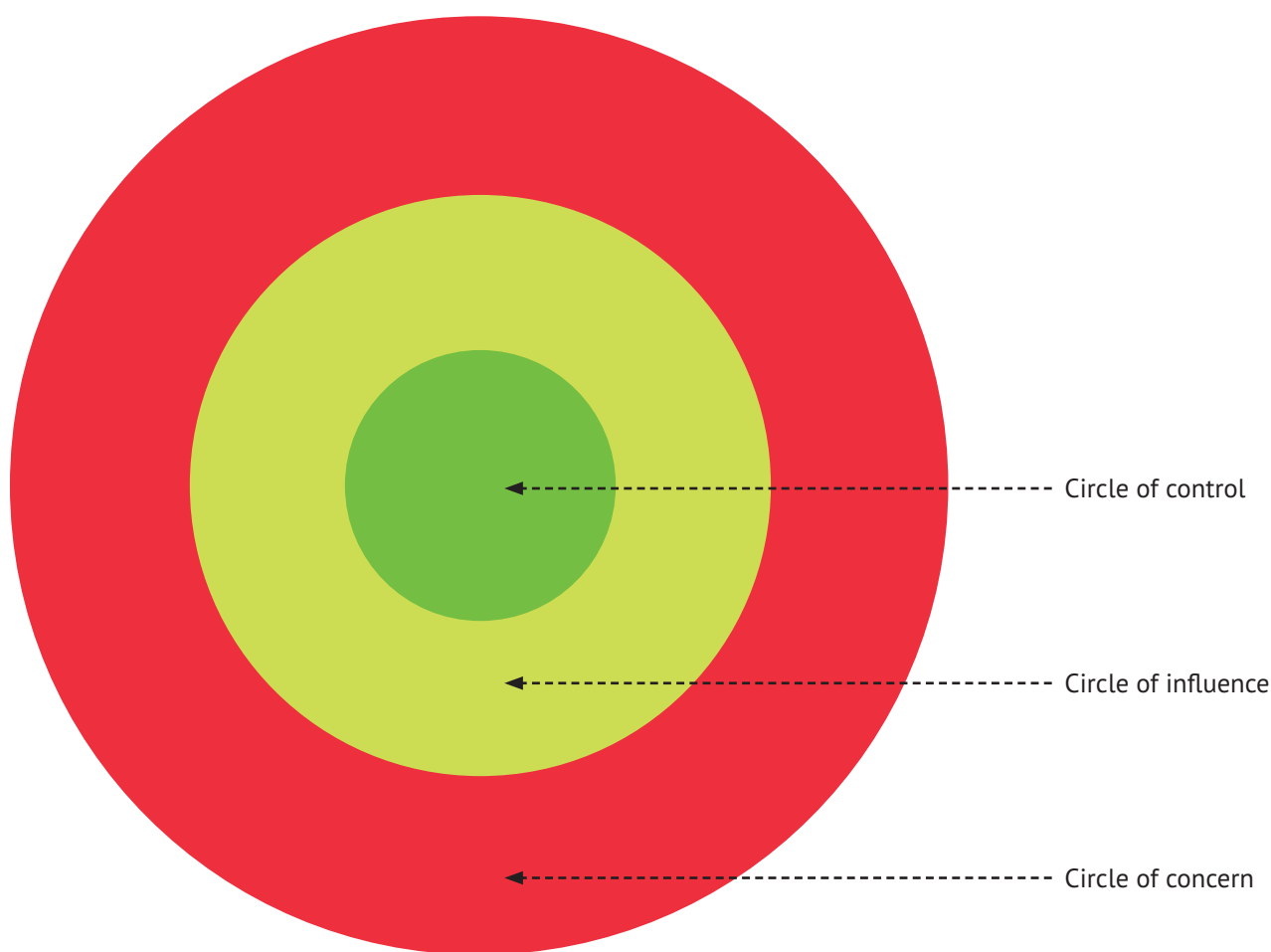
Staff and students are encouraged to use the circle of control model to keep track of how their actions can make a difference (See Figure 10).

Focus on what you control - such as what you buy, what you eat and how you choose to travel. Then focus on who and what you can influence - your circle of friends, family, petitions to sign, simply by raising your voice. Remember it's

easy to fall into the trap of the circle of concern - which are things we worry about, such as the climate and ecological crisis, but then don't do anything about because they seem too big for us to contribute to.

It's vitally important that when you think how to act, you remember that you have two weapons: your choices and your voice.

Figure 10: The Circle of Control



6.3 Where can I find out more and get involved?

The full CECAP can be found on our website, please visit: www.bournemouth.ac.uk/about/sustainability.

You can get involved by contacting the Sustainability Team via email, please send any emails to: sustainability@bournemouth.ac.uk

You can also follow the Sustainability Team on social media here:



@Sustainable_BU



@Sustainable_BU



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