

# Sustainability Champions Handbook



University  
of Dundee

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## The Aim of this Handbook

The aim of this Handbook is not to provide a step-by-step guide or established process for implementing actions that will result in the reduction of CO2 emissions. Nor does it aim to provide in-depth or detailed explanation of each technique,

Rather, it aims to provide supportive background information relating to the University's Carbon Reduction Strategy, provide practical resource, ideas, insights, and guidance to enable the reader to begin developing an integrated approach to carbon reduction in your School or Directorate.

As a resource, it is not the intention of this Handbook to, rather it provides a brief introduction and overview of different models or techniques, which are, by and large, only now beginning to emerge as viable tools that aim to reduce or eliminate emissions. Therefore, the Handbook aims to provide a basic overview that should allow you to:

- Build basic knowledge of carbon reduction techniques and roadmaps.
- Utilise emerging carbon reduction models, as well as develop your own.
- Develop leadership and facilitation skills.
- Establish carbon reduction goals in your School and/or Directorate.
- Establish the beginning stages of a mind-set shift to support the transition from a high carbon operation to a low carbon operation.
- Develop constructive data analytics infrastructure that provides evidence of emission reduction and recognises School's, Directorate's, and individuals' accomplishments.
- Build rudimentary facilitation skills and community engagement skills.
- Conduct 'foot printing' exercises.

## Who Is the Guidebook for

This Guidebook has the flexibility and applicability to be used by a wide variety of academics and administrative professionals. Sustainability Champions can utilise this guide to design an intervention that will result in either the elimination of or reduced GHG emissions, as well as journeying towards a mindset change. School Managers and Directors can use this guide to work closely with Sustainability Champions, manage priorities and activities, and develop capability. Work groups being led by Sustainability Champions can apply the techniques outlined in the guide to develop their skills and effectiveness, and support Schools or Directorates efforts to reduce, monitor and manage their GHG footprint on a timely basis.

## Glossary

People who work in change management will often talk about using vernacular language as a meme for recognising that change is being adopted within an organisation. Sustainability Champions will be engaging with a broad spectrum of stakeholders' ranging from colleagues, suppliers, visitors and potentially members of the public, and you will be using, and more importantly, hearing, vernacular language associated with the principles and practices of Sustainability and NetZero being used in formal or casual conversations. This feedback not only builds your confidence as an influential leader, but it also evidences connections between departments, that people are being strengthened, that the conditions for emergent change are developing to a higher level of organisational maturity, and that a positive alignment of mindset is beginning to occur. The following glossary provides a description of some key concepts that relate to Sustainability and NetZero. If you hear these concepts being discussed, you know change is occurring.

### Carbon Budgets

Carbon budget can be used to describe national, organisational or departmental restrictions. At the national level, the carbon budget places a limit on the total amount of GHG the UK can emit over a 5-year period. These are legally binding.

Departmental carbon budget is the cumulative amount of CO<sub>2</sub> emission permitted over an academic year and act in the same manner as financial budgets do – the budget places limits on any purchases of goods and services. This will enable each school and Department to make informed choices, while keeping within financial and carbon limits.

### Carbon Negative vs Carbon Positive

This is where language becomes unnecessarily confusing. Carbon negative means the organisation is planning to go beyond NetZero. That they are ensuring their activities remove more greenhouse gases than they are producing. In other words, the organisation is capturing more carbon than it is producing. However, this status is also known as being carbon positive or climate positive. Both Carbon Negative and Carbon Positive are essentially the same thing- a net removal of CO<sub>2</sub> from the atmosphere.

### Carbon Neutrality

This is a utopian target or theoretical concept which relies on organisations reducing their emissions to absolutely zero without the need to offset remaining or surplus emissions. Carbon neutrality is not a technically possible destination. Companies that claim to be, simply write off their residual emissions by purchasing credits or selling polluting asset to someone else so the asset is no longer recorded on the company's balance sheet. This simply moves the problem rather than solves it; likewise, it removes responsibility for the emission.

### Carbon Offsetting

Carbon offsetting is an organisation's fallback position when it is not possible to reduce carbon, either because the technology does not yet exist or is not economically viable to do so. Offsetting is an accounting term which simply means to take compensatory measures, which includes purchasing carbon credits from carbon markets or creating your own carbon credits via building a capability that includes forestry creation, peatland restoration or a combination of all three. The University which

emits tonnes of carbon emissions each year, could potentially purchase the equivalent of carbon credits and claim carbon neutrality or NetZero.

### Categories of Carbon Emissions

Carbon emissions can be measured in different ways, with each method providing different outcomes. The University uses standards set by the 'GHG Protocol', which are a comprehensive and globally recognised standard for measuring GHG emissions. Under this standards GHG are classified into three categories:

**Scope 1 emissions** are direct GHG emissions that occur from sources that are controlled or owned by an organization (e.g., emissions associated with fuel combustion in boilers at the University's CHP Plant and its vehicles)

**Scope 2 emissions** are indirect GHG emissions associated with the purchase of electricity, water from utility companies, as well as steam, heat, or cooling.

**Scope 3 emissions**, also referred to as value chain emissions, often represent the majority of an organisation's total GHG) emissions. The GHG Protocol defines 15 categories of scope 3 emissions, for example business travel, staff commuting, procurement of goods and services, etc., though not every category will be relevant to the University. The criteria relevant to the University are explained in detail in the section titled GHG Protocol.

### Core Carbon Principles

The Core Carbon Principles or CCP's include a series of 10 globally recognised standards for assuring the integrity of carbon credits either when being purchased or generated through sustainable development of woodland and/or peatland. The 10 Core Principles provide a credible and rigorous means of identifying high-integrity carbon credits that create real, verifiable climate impact, based on the latest science and best practice. The 10 Principles are:

	Category	Criteria
<b>A</b>	Governance	<ol style="list-style-type: none"> <li>1. Effective Governance</li> <li>2. Tracking</li> <li>3. Transparency</li> <li>4. Independent 3<sup>rd</sup> Party Validation and Verification</li> </ol>
<b>B</b>	Emissions Impact	<ol style="list-style-type: none"> <li>5. Additionality</li> <li>6. Permanence</li> <li>7. Qualification of emission Reduction and Removal</li> <li>8. No Double Counting</li> </ol>
<b>C</b>	Sustainable Development	<ol style="list-style-type: none"> <li>9. Development and Safeguards</li> <li>10. Contribution toward NetZero Transition</li> </ol>

Further information can be found at <https://icvcm.org/the-core-carbon-principles/>

**De-Carbonisation**

Used to describe planned 'actions' to remove CO<sub>2</sub> from the University's daily operations, such as reducing purchased goods that have a large carbon footprint and negatively impact the climate or recycling goods as to prevent future purchases of the same or similar goods.

**Greenhouse Gas Emissions**

Virtually all human activity, whether as an individual or as an organisation, produce carbon emissions, when accumulated creates an organisations carbon footprint. Can and often referred to as a pollutant. Carbon footprints are generally made up of a number of different Greenhouse Gases (GHG from now on), such as

- carbon dioxide (CO<sub>2</sub>),
- methane (CH<sub>4</sub>),
- nitrous oxide (N<sub>2</sub>O),
- hydrofluorocarbons (HFCs),
- perfluorocarbons (PFCs),
- sulphur hexafluoride (SF<sub>6</sub>) and
- nitrogen trifluoride (NF<sub>3</sub>).

All emissions are generally clustered together and reported as CO<sub>2</sub>e in kilogrammes or tonnes, for example 96,079 tCO<sub>2</sub>e, and generally referred to as a **Carbon Footprint**.

**High Performing Building**

Often categorised by the building's ability to effectively conserve energy, heat and water, and contributes less emissions to the atmosphere than a traditional building. This is often referred to as a 'Passivhaus construction', which is so well designed, constructed using sustainable materials, insulated and ventilated that the building retains heat from the sun and the activities of its occupants, requiring very little additional heating or cooling.

**Infrastructure**

In this particular context, infrastructure relates to the development of data pathways to enable the University, schools and Directorates to measure its emissions on a regular basis. Having clear and actionable data will be an enormous step forward for developing climate actions, reporting progress against climate goals and building confidence in the University's ability to reduce its emissions.

The risks and opportunities related to the University's journey to NetZero is too important for promises to remain uncertain. Defining the path ahead depends upon having reliable data that can be appropriately actioned and resourced, and this requires the development of an infrastructure to support these efforts. Without this infrastructure, the journey to NetZero by 2045 will be near impossible to track.

**Interim Principles for Responsible Investment in Nature**

Investment in Offsetting, such as Peatland Restoration and/or Woodland Creation, will be subject to a set of principles to help ensure the investment delivers social, environmental, educational, and economic benefits. Embedded into this policy are:

### Woodland Carbon Code

Purchasing an asset and creating a woodland is governed by a series of standards that are set out in the Woodland Carbon Code. The Standards allow for robust voluntary carbon offsetting by Universities throughout Scotland. Over time, the asset produces Carbon units that can be used as “credits” against University’s emissions. Woodland carbon units can only be generated by planting new woodland and projects must register before any work starts onsite, otherwise the project will not be recognised by the UK Land Carbon Registry

### Peatland Carbon Code

The Peatland Code is a voluntary certification standard for UK peatland restoration projects that the University could potentially be involved in. The Code is governed by SRUC Consulting and OF&G, and the Soil Association, and provides assurances that the climate benefits are tangible, quantifiable, and permanent.

### NetZero

NetZero is a relatively new concept and is increasingly being used to describe a commitment to reducing carbon emissions worldwide. NetZero is an international goal that aims to take action to reduce emissions and where this is not possible, develop an Offsetting (see below) or carbon capture capability which currently includes forestry creation and peatland restoration. However, the emphasis must always be on carbon reduction.

The UN defines Net Zero as “cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.

### School/Directorate Foot Printing

Foot printing relates to activities that regularly measure the impact of each School and Directorate upon the University’s carbon output. Foot printing provides a framework for continuously measuring emissions, identifies areas where to focus emission reduction/elimination efforts, motivates staff and other stakeholders to take-action, and demonstrate progress toward achieving the University’s medium and long-term ambitions relating to NetZero.

### Sustainability

In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. However, there are three different concepts that a Sustainability Champion needs to be aware of:

- In a **Business/Economic and Policy contexts**, sustainability seeks to prevent the depletion of natural or physical resources, so that they will remain available for the long term.
- In an **Environmental context**, sustainability seeks to conserve and protect natural resources and eco-systems over the short, medium and long term. It also pertains to protecting local environment to support health and wellbeing.
- In a **Social context**, sustainability seeks to design, engineer, create and build places (live and work) to keep individuals and communities healthy, secure, and respected.

Source: These three pillars are often referred to as the 3 P’s of Sustainability, People, Planet and Profit and first appeared in 2002 Brundtland Report, Agenda 21, and the 2002 World Summit on Sustainable Development (Moldan B. et al (2012), ‘How to Understand and Measure Environmental Sustainability: Indicators and Targets. Ecological Indicators, 17, 4-13.

### The Race to Zero

The Race to Zero is a global campaign that the University signed up to in 2022. The campaign encourages educational institutions to accelerate efforts to reach NetZero by taking 'rigorous and immediate actions to halve global emissions by 2030 and deliver a healthier, fairer, net zero world'.

The Race to Zero offers a set of five criteria for the University to meet – Pledge, Plan, Proceed, Publish and Persuade (known as the 5P's). The standards of 'Leadership Practice' that are set out in an upcoming section of this Guidebook, are based upon the use of these five criteria and should be used to develop 'climate action plans' across each School and Directorate.

## Background

The University's Carbon Management Strategy puts climate action and NetZero, at the heart of our purpose and Core Values, which are:

- Valuing People,
- Working Together,
- Integrity,
- Making a Difference, and
- Excellence.

This strategic document sets the University's long term and short-term ambitions in terms of what the University wants to achieve between now and 2045 (See section University's Long-Term Ambitions). The document also outlines specific priorities that will be delivered within the next twenty-four months (See section 'University's Short-Term Targets'). The Strategy document also sets out organisational arrangements and its role in partnering with external organisations such as the Eden Project.

Progress towards achieving both long and short-term ambitions will be reviewed annually, and in alignment with the University's Strategic Planning Process. And since Sustainability is an emerging field, that is constantly changing, the University's Carbon Reduction Strategy will be periodically updated, with the next iteration in 2027.

In addition to the above, the University has also become a signatory to the Net Zero Challenge for Universities and Colleges (NZC). This is a world-wide challenge is facilitated by the United Nations Climate Change Groups. By joining this global initiative, the University is not only making a public statement about its investment in reducing our carbon footprint, but also it is making a declaration that the University will investment in the elimination of carbon emissions across its entire operations. The University's NetZero pledge, is to:

- a. Continue the trajectory towards the University's Long-Term ambitions.
- b. Commit to delivering the Scottish Government emission reduction targets.
- c. Deliver excellence.
- d. Participate in the NetZero Challenge (as above)

These are further explained below.

### The University's Long-Term Ambitions

The University's long term Carbon Strategy, sets out the University's climate action ambitions, which are to:

- Achieve a 75% reduction of Green House Gas (GHG) by 2030, or before;
- Deliver the Scottish Government's year on year reductions of emissions;
- Deliver NetZero (100% reduction of emissions) by 2045 or before.

These top-level emission reduction targets present the University's 'minimum' long term ambition for carbon reduction. To deliver these long-term ambitions, over the short term, Schools and Directorates will need to reduce their carbon footprint by 7 % each year. To support the delivery of both long term and annual %ile carbon reductions, the University will develop and roll-out operational and behavioural transformation programs across Schools and Directorate, supported by Sustainability Champions.

#### Scottish Governments Emission Reduction Targets

The Scottish Government have recently (2020) published its own ambitions for a low carbon society. Its ambitions are:

- To reach NetZero by 2045
- Interim target of 75% reduction by 2030
- 90% reduction by 2040

To track progress towards these long-term targets, the Scottish Government have also published annual targets for every year up to 2045. These annualised targets, expressed as cumulative %age reductions can be found here:

<https://www.gov.scot/policies/climate-change/reducing-emissions/>

#### Delivery of Excellence

The University's quantitative ambitions have also been refined to include softer qualitative ambitions too. These ambitions are geared toward delivering excellence across five strategic pathways developed by a collaboration between the Alliance for Sustainable Leadership in Education and the Climate Commission for the UK Higher Education. Together, they developed a 'Climate Action Toolkit', which provides a series of five pathways that will support Schools and Directorates efforts to reduce emissions. These are:

- Leadership, Staff and Governance
- Campus, Community and Operations
- Education/Teaching
- Research and Knowledge Exchange
- Partnerships, Society and Engagement

More information about each of the five strategic pathways can be found here:

[EAUC Home](#) | [EAUC](#)

## Greenhouse Gas Protocol

The Greenhouse Gas Protocol (also commonly referred to as the GHG Protocol) is the main global standard for measuring greenhouse gas across organisations engaged in both public and private sectors. The Standard simply identifies ‘what’ should be measured but also the ‘how’ since it provides a means for accurately measuring greenhouse gas emissions across the University, its supply chain, and our method monitoring the degree of success that Schools and Directorate are achieving against their own emission reduction ambitions. The Protocol covers Scope 1, Scope 2 and Scope 3.

It is doubtful whether or not Sustainability Champions will influence Scopes 1 and 2, and therefore they will predominately focus on developing climate mitigation strategies across Scope 3. According to the GHG Protocol, Scope 3 includes 15 different criteria, which are set out below. Sustainability Champions will focus upon those elements coloured green. The orange elements, while of interest, are not within the Sustainability Champions sphere of influence to change, however, that is not to say that teams cannot take actions to lower emissions, for example, turning off lights. The red elements are simply not relevant and can be ignored. Each of the Green elements are explained below. Sustainability Champions will not have any influence over the Orange coloured categories, albeit they may appear within a Champion’s sphere of concern.

### Fifteen criteria that make up Scope 3



#### *Purchased Good and Services*

This category includes all emissions from the purchase of goods and services acquired by the University, a School or Directorate in the reporting year. Purchased goods include tangible products (such as laptops, office equipment and consumables) and the supply of intangible services (for example hiring a consultancy to do some analytical work). Generally, the purchase of goods that are considered as a capital good are not included in this category.

#### *Capital Goods*

This category includes emissions from the production of capital goods that the University has purchased or acquired in the reporting year. Emissions from using capital goods should be accounted for in either Scope 1 or Scope 2 (electricity or running costs), rather than Scope 3

#### *Waste Generated in Operations*

This category includes emissions from third-party disposal and/or treatment of waste generated by the University's operations in the reporting period. This category includes emissions from the disposal of both solid waste and wastewater. Waste treatment activities may include:

- Disposal in a landfill
- Disposal in a landfill with landfill-gas-to-energy (LFGTE) – that is, combustion of landfill gas to generate electricity
- Recovery for recycling
- Incineration
- Composting
- Waste-to-energy (WTE) or energy-from-waste (EfW) – that is, combustion of municipal solid waste (MSW) to generate electricity
- Wastewater treatment.

#### *Business Travel*

This category includes emissions from business related travel (not staff commuting) in vehicles owned or operated by third parties, such as aircraft, trains, buses, hired cars. Business travel using staff own vehicles or vehicles owned by the University should be accounted for in Scope 1 (for fuel use) or in case of electric vehicles, Scope 2.

Emissions from business travel may arise from:

- Air travel
- Rail travel
- Bus travel
- Automobile travel (e.g., business travel in rental cars or employee-owned vehicles other than employee commuting to and from work)
- Other modes of travel. Companies may optionally include emissions from business travellers staying in hotels.

Emissions from leased vehicles operated by the University should be included in Scope 3 Upstream Leased Assets and emissions from staff commuting recorded in Employee Commuting category.

#### *Employer Commuting*

This category includes emissions from staff travelling to the University from home, and from the University to home. Emissions arise from:

- Automobile travel
- Bus travel
- Rail travel
- Air Travel can also be used by staff on weekly commutes, i.e., from London to Dundee.
- Other modes of transportation (e.g., subway, cycling, walking).

#### Downstream/Upstream Leased Assets

The next two categories are 'Upstream Leased Assets' and 'Downstream Leased Assets'. Coloured Orange in above model. While there maybe exceptions, it is unlikely Sustainability Champions will be asked to influence contractual obligations, nevertheless, an explanation of these two categories are as follows.

##### *Upstream Leased Assets*

This category includes emissions from operating an asset that the university has leased from a landlord or letting agent, in the reporting period, and not already included in the reporting in Scope 1 and 2 (i.e., emissions from utility and/or energy costs).

##### *Downstream Leased Assets*

This category includes emissions from operating assets that are owned by the University (Landlord) and leased or let out to a third party or tenant. Scope 1 and scope 2 categories, i.e., energy used by the tenant is included in this category.

### University's Short-Term Targets

The University recognises that delivering its carbon reduction ambitions across each of the above categories will be exceedingly challenging for each School and Directorate. To do so will require a clear focus upon the delivery of short-term objectives. The expectation is that Sustainability Champions will each contribute to the delivery of these short-term objectives, which are:

Change initiative	Description	Timescale
<b>Foundation Initiatives</b>		
<b>Operating model:</b> strengthen our organisational design to support the management of sustainability	Identify staff to become Sustainability Champions, train, and agree targets for Schools and Directorates to deliver on. Our Champion cohort will particularly focus on staff and student and engagement to create conversations that drive delivery.	Within 12 months
<b>Strategic Planning Process:</b> establish clear climate action / Net Zero targets and budget for Schools and Directorates	Provide relevant data to Schools and Directorates to support their Annual Strategic Planning rhythms, define climate actions, emission reduction targets and reporting mechanisms.  Work with Schools and Directorates to build appropriate Business Cases for change and agree appropriate capital and revenue budgets to support carbon reduction projects.	Within 9 months
<b>Reporting and insights:</b> collect data and provide analysis and insights at an executive and community level	Strengthen data feeds, collection and analysis across the University and across its supply chain, and ensure the data fits the University's statutory reporting mechanisms	Within 6 months
<b>Procurement</b>	Procurement will work collaboratively with:  Schools and Directorates to establish purchasing needs and proportionate carbon budgets  Develop policies, processes and procedures to track and monitor carbon emission when procuring goods and services supply chains to reduce carbon emission across agreed priority areas, for example capital goods  Reduce consumption of new goods and equipment in favour of re-using, re-purposing existing resources	Within 6 months
<b>Specific priority initiatives</b>		
<b>Reduce emissions associated with Business Travel.</b>	The University will develop a Travel Policy and explore initiatives to encourage staff and students to reduce business travel, and to promote the use of more sustainable travel solutions.  100% of University fleet will move to low carbon/electric vehicles.	Ongoing
<b>Reduce emissions associated with Staff and Student Commuting</b>	The University will explore initiatives to encourage and promote staff and students to reduce commuting will promote the use of more sustainable travel solutions.	
<b>Elimination of Waste</b>	Reduction and elimination of all forms of waste	Within 3 years

## The Role of the Sustainability Champion

Sustainability Champions are a network of volunteers who provide a local focal point for sustainability issues within their School or Directorate. Their role is to act as an enabler of change by encouraging their peers to make small changes to everyday practices that collectively make a big difference across the University. The role includes, but not limited to:

- Act as the School/Directorate point of contact and change coach regarding sustainability and the delivery of agreed targets.
- Contribute ideas for improvement to develop the University and School/Directorate Climate Action Plans and share practice within their area and as part of a university's network including attending meetings (up to four per year).
- Develop matrices that will help begin measuring the results of your School or Directorate efforts to reduce GHG emissions.
- Ensure actions, progress and success is reported to the Carbon Management Team.
- Champion the Sustainability Agenda and the wider work of the University as set out in the Carbon Management Strategy, Action Plan and associated Policies.
- Actively encourage colleagues to become environmentally aware and to follow agreed environmental practices and support staff with agreed change.
- Provide feedback to the Carbon Management Team on any environmental information / publications that come to light through their professional work. This aims to aid the full integration of sustainable development into all curricular and professional working areas of the University through all teams, peers, staff and student groups.

## Developing Skills as a Sustainability Champion

Understanding the cause and impacts of climate change, and what you and your School or Directorate can do to (i) develop a climate action or carbon recovery plans, and (ii) affect change, will be the two main priorities for a Sustainability Champion. While this resource will help you develop your basic knowledge and know-how, developing your own understanding of climate change as well as knowledge of your Schools or Directorates carbon footprint will help you identify priorities, how to engage and influence a wide range of stakeholders, including staff and students, and help you make a difference within your sphere of influence.

The sections that follow, serve as an introduction to the skills required by a Sustainability Champion. The sections provide key pointers for facilitating workshops, developing School or Directorate carbon recovery plans (these plans set out key actions to reduce, track and manage emissions). The sections also provide information regarding managing interventions within your area. It should also help Sustainability Champions to

- Develop consensus within each School and Directorate of what is meant by NetZero in the contexts of Universities in general, University of Dundee in particular. On that, this resource should help you facilitate conversations that develop understanding and an accepted School or Directorate perspective that is aligned to the University's NetZero ambitions.

- Identify and select key priority areas that provide greater impact in terms of reducing emissions. Some actions will reduce emissions more than others. For example, reducing business travel will have a greater impact upon reducing emissions than reducing the number of plastic cups that are used by staff during breaks.
- Challenge and un-trench existing mindsets, particularly in terms of how purchasing decisions are made, how Sustainable Champion can challenge and influence those decisions, and where the University's NetZero ambitions can be embedded.

As with all organisations, large and small, the University, Schools and Directorates will have limited resources and increasing levels of demand, and embedding the University NetZero ambitions, as well as taking action to deliver the University's emission reduction targets will only add to those pressures. What follows is a series of bite sized resources that can be used to effectively engage, prioritise, plan, manage, and report the impacts of carbon reduction efforts over time. These sections have been designed to support your learning journey and help you get started.

When you first begin engaging with colleagues, a number of big challenges and opportunities will begin to emerge. Some will be within your sphere of influence, some will not, and some will feel completely impossible. The trick here is to think imaginatively, think big but start small. Use the tools shown below and work with your School or Directorate leadership to recognise the small things that you can do together that will have a big impact in term of carbon reduction. Networking with other Sustainability Champions is encouraged and often a source of inspiration, new ideas and insight.

Making small changes to the way the School, Directorate or University operates in addition to your day job, will be challenging. For this reason, the below pointers have been created to provided as much practical help as possible. However, as a Sustainability champion you will need to work with your Schools/Directorate leadership to determine how much time that you can set aside for helping others move things forward. Set up a 'Green Monday' club which is dedicated to learning about NetZero as well as making impactful actions that deliver big results.

### Sustainability Champion as Enabler – Leadership

The University is committed towards reducing emissions across all three Scopes, across the University, in line with science, current knowledge and technological know-how. To do so requires a new level of leadership to enable Schools and Directorates to focus upon delivering the University's medium (75% reduction), forecasted trajectory toward the attainment of long-term targets (NetZero by 2045), and annual reporting in line with the University's Strategic Planning Process. Annual reporting will focus upon progress towards delivering these medium and long-term goals, as well as 'what is next steps for the School or Directorate'. This process should be facilitated by the Sustainability Champions and led by School Managers and/or Deans.

To attain University's ambitions will require a different mind-set and a different leadership style. While the mind set change can be evidenced through the adoption of a different vernacular language, often observed by a supporting commitment and behaviour to decarbonise the University. The following Leadership Model provides a minimum baseline to strive for. The Leadership Model sets out a series of five practices that should be evidenced during the various workshops described in a previous section of this Handbook. The practices are commonly referred to as the 5P's of Sustainability Leadership –

1. Pledge,
2. Plan,
3. Proceed,
4. Publish, and
5. Persuade.

The following Table describes each.

### 5 'Ps' of Sustainability Leadership

Criteria	Description	Leadership Practice
Pledge	<p>School and Directorates' own 'Pledge' should be in line with the University's Race to Zero Pledge – to reach NetZero by 2045 or before. School and Directorate Climate Action Plans should recognise efforts to reduce emissions by phasing down of practices that encourage carbon emissions, for example, reducing spend on capital equipment.</p> <p>Each School and Directorate will set an interim target to achieve carbon reduction on an annual basis, which reflects maximum effort toward attaining a 75 % reduction in CO<sub>2</sub> by 2030. Where possible, targets must cover all three Scopes, with a particular focus upon Scope 3.</p>	<p><b>Target NetZero</b> Aim to set a journey toward NetZero by establishing twin targets. The first set out to reduce emissions to absolute Zero and secondly, set out a target that is practically achievable within the annual planning cycle.</p> <p><b>Set targets for specific GHG</b> Set specific targets for short term reduction of methane and other GHG. Pledge to reduce methane emissions by 2030.</p> <p><b>Set KPI's for carbon reduction and elimination</b> Based on, 'What gets measured, gets done', sets out what your key performance indicators (KPI's) are and how the School/Directorate will evidence the outcome of your carbon reduction action plan?</p> <p>Nothing more inefficient than measuring something that is not required, so rather than focusing on reducing emissions, explore technologies, processes, procedures that eliminates emissions altogether.</p> <p><b>Contribute to Supplier Breakthroughs</b> Looking to work with existing suppliers to find new ways to reduce emission to absolute zero, rather than switching to said low carbon emission suppliers. Work with Suppliers to set ambitious carbon reduction targets for the purchase of goods, including capital goods.</p> <p><b>Sharing of Technology</b> When considering purchasing capital goods, consider looking for a partner, i.e., another University, who already has the equipment, and find out if this could be shared.</p> <p><b>Set targets for Emission Elimination</b> Rather than focusing on reducing emissions, explore technologies, processes, procedures that eliminate emissions altogether.</p>

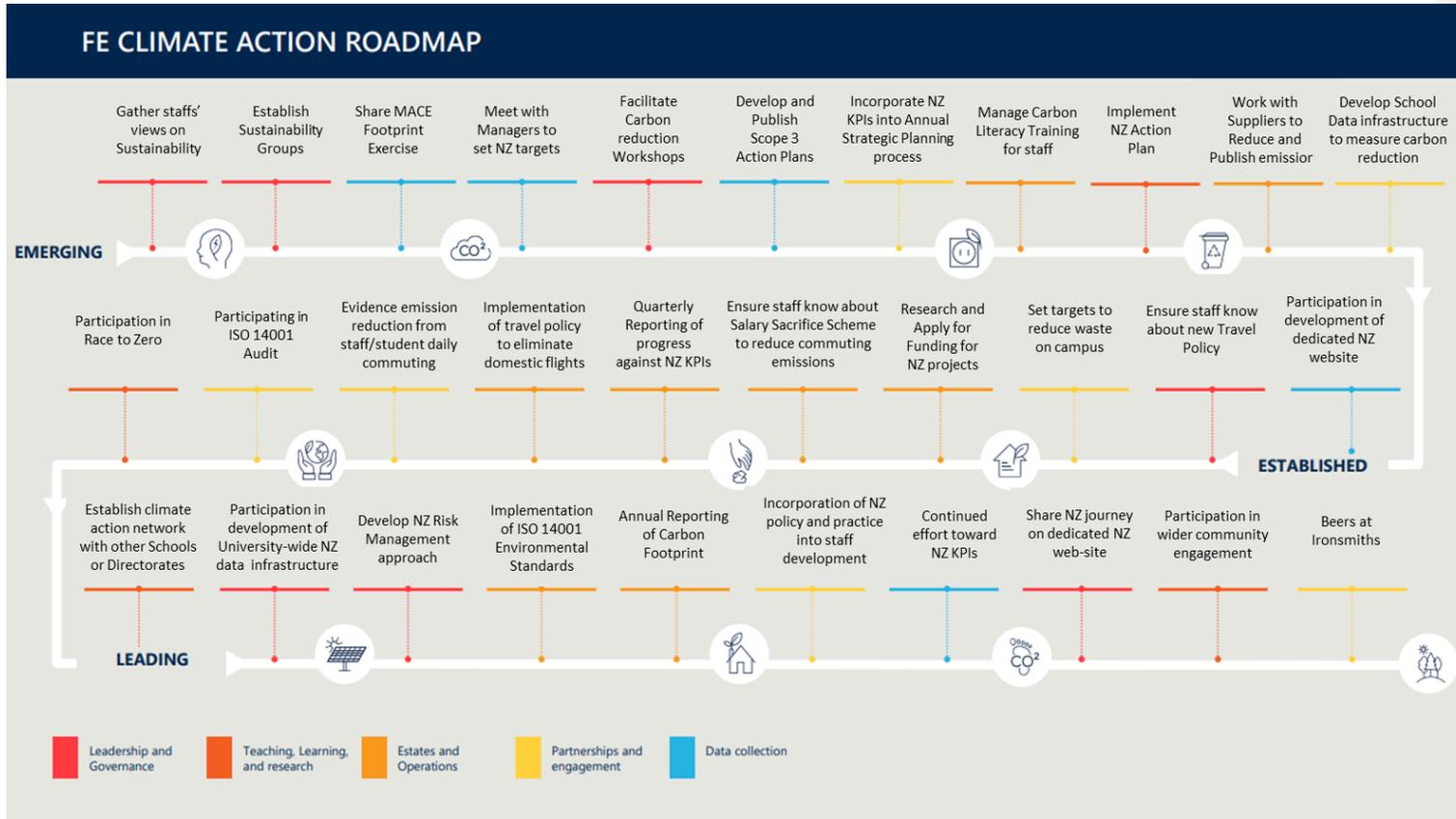
Plan	<p><b>Facilitation of carbon reduction workshops</b> Facilitate workshop that explore a Schools and/or Directorates operating models to</p> <ul style="list-style-type: none"> <li>• Identify potential carbon removal and reduction opportunities.</li> <li>• Align carbon removal and reduction efforts with above twin targets.</li> <li>• Develop action plans that take immediate action across all School and Directorate pathways – policy, procedures, policy, procurement etc.</li> <li>• Where relevant, feed actions into Annual Strategic Planning Process</li> <li>• Monitor carbon reductions</li> </ul>	<p><b>Support a School and Directorate transition to low emission operations.</b> Explain how transition will occur, when and how transition will be managed. Explain how transition will impact other ways of doing things and its impact upon established targets set out in the University’s Annual Strategic Planning process. Explain what breakthroughs are anticipated and how these are going to be capitalised upon</p> <p><b>Empower Stakeholders</b> Explain what actions the School/Directorate will take to engage with and empower all stakeholders to embrace transformation, contribute to carbon reduction and elimination, and how the School/Directorate will engage with other Schools/Directorates to create communities of practice.</p> <p><b>Behavioural Response</b> What response in terms of behavioural or cultural changes would you like to evidence. How would you measure that change in mind set and/or behaviour?</p> <p><b>Utilise the Reduce, Re-Use, Re-Cycle Model</b> Where appropriate, the 3R Model to frame discussion around carbon reduction, for example, a question that can be explored is – how can the School/Directorate reduce its reliance upon supply of bought goods?</p> <p><b>Set Carbon Budget</b> Use the carbon calculator (See section below) to forecast carbon emissions on bought items and explore ways to reduce carbon spend when procuring goods.</p>
Proceed	<p>So far, the School/Directorate has engaged staff, set targets, identified where emissions can be eliminated or reduced, identified the obstacles, taken action to mitigate risk, and has developed a climate action plan. It is now time to put that plan into action.</p>	<p><b>Plan into Action</b> As an enabler of change, the Sustainability Champions facilitates the ‘plan into action’ stages of a Schools/Directorates interventions. Interventions will be a series of carbon reduction initiatives on set process or community engagement campaigns to improve awareness or encourage action across a wider community <i>i.e.</i>, students, suppliers, visitors, member of the public, and so on.</p>

		<p><b>Empowerment</b> See to enable transformation across the School or Directorate through engagement, information sharing, sourcing green finance initiatives that the University can tap into, designing and building dashboards, and providing feedback in the way of published data/evidence of emission reduction.</p> <p><b>Contribute beyond your own School or Directorate</b> In addition to enabling School / Directorate initiatives, contribute toward helping other Sustainability Champion, as well as engaging with stakeholders within the supply chain specific to the School / Directorate to reduce emissions for goods, services, and capital goods.</p> <p><b>Scale up solutions</b> Proactively scale up activities that breakthrough technological and cultural barriers and contribute to the achievement of the University’s long-term ambition to reach NetZero by 2045</p>
Publish	Report progress against medium and long-term targets, as well as those actions being taken, at least annually and in line with University Strategic planning process.	<p><b>Develop Data Infrastructure for Foot Printing</b> Develop data frameworks that provide the Schools / Directorates carbon footprint on a regular basis. This will help efforts to pinpoint areas of focus, motivate Schools/Directorate to take action and demonstrate progress towards achieving the University’s medium and long-term ambitions.</p> <p><b>Report on Progress</b> Outline progress towards achieving School/Directorate and University goals and what resources the School/Directorate has allocated to achieve these targets. Report what actions are being taken in areas where there might be a shortfall in emission reduction.</p>
Persuade	As an enabler of change, the Sustainability Champion is expected to be involved in ‘community engagement’ efforts. These efforts will proactively engage with peers, students, suppliers, visitors and member of the general public to align their mindset and goals to achieving the University’s medium to long-term ambitions relating to NetZero.	<p><b>One Team</b> All schools and Directorates will work on NetZero as one team. Every member of staff is important; everyone is responsible for making a difference; everyone is responsible for reducing emissions. Involve all.</p>

		<p><b>Community Engagement</b> Proactively seek to identify stakeholders who have an 'interested in' and 'influence over' the direction of your Schools or Directorate carbon reduction activities and develop a specific Engagement Plan.</p> <p><b>Activate Community Engagement</b> Activate the Schools or Directorates Engagement Plan and actively seek feedback to ensure your peers, colleagues, students, suppliers and other external stakeholders and advocates, are aligned to your School / directorates carbon reduction goals. Where possible, demonstrate how your School /Directorates carbon reduction ambitions creates opportunities for others to follow.</p> <p><b>Mainstream Alignment with University's NetZero Ambitions</b> Advocate for appropriate feedback loops and facilitate measures to ensure that the University's NetZero ambitions (75% by 2030, NetZero by 2045) becomes the default for all identified stakeholders.</p>
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### **Sustainability Champion as Programme Manager**

While a Sustainability Champion won't be expected to become a dedicated Programme Manager, there is an expectation that an SC will be involved in taking forward interventions/climate action that the School or Directorate have designed/approved. These interactions may include actions set out in the FE Climate Action Road Map below. The Road Map has been adapted and based upon EAUC's NetZero Road Map and not only includes a series of steps/actions that an SC might be involved in progressing, but also provides a Roadmap for accessing Schools or Directorates Organisational Maturity level. The activities that appear on the Road Map are not exhaustive and may include other interventions/actions too. The Road Map therefore provides a guide to actions that a Sustainability Champion may be involved in taking forward.



### Sustainability Champion as Enabler of Transition Planning

As Schools and Directorates align to the University's NetZero ambitions, it is inevitable that Sustainability Champions, and their peers, will at some point, become involved in managing the planning and delivery of transition from high carbon operations to a low carbon operation.

When involved in this transitional process, keep in mind that organisations fail to change because individuals fail to change. Individuals fail to change because of three key identifiable reasons:

- They fail to see the need for the transformation.
- They see the need for transformation but fail to move.
- They begin the journey, find out that it is too difficult and fail to finish.

The drive toward NetZero has, so far, been led by environmental and social scientists using a metric or data led approach to persuade the need for climate action. However, we have all heard that presenting facts do not change people minds. People need to 'see' and 'feel' the impact of climate change. It is therefore important for Sustainability Champions to move away from a data driven approach to a people centred approach where the focus is upon the human outcomes of changing core practices and processes within the University.

Based upon three basic principles, Sustainability Champions can influence and enable change by using simple but effective language, facilitate coaching session (See Coaching and Support section) that influence decision making, and develop approaches that are engaging, people centred, but also provided data that provides sufficient storyline to determine where each school or directorate is at in their journey, what each has achieved and hope to achieve in the future.

#### Assessing Progress Towards Maturity

Briefly mentioned and outlined in the FE Climate Action Road Map, a Maturity Model should be used in conjunction with the Road Map to determine progress. While the Road Maps provides some broad, almost step by step actions which are mechanical in nature and evidence physical change to School/Directorate policy, procedures, and process. The Maturity Model determines the speed at which Schools, Directorates and even people, will take up, incorporate, or adapt to change quicker and more effectively than others. Ultimately, this creates a mixed tapestry of adoption towards NetZero across the University.

The Maturity Model is designed to differentiate early adopters or pioneering groups from those groups who lag behind. To do so, the Maturity Model set out three key stages- Emerging, Established, Leading – each evidencing differing levels of buy-in, acceptance and implementation. The Table below set out the details of each of the key stage and provides a robust model to determine exactly where each School or Directorate is in their journey toward NetZero.

- provide a solid means for managing the implementation of sustainable practice;
- provide a comparative framework for monitoring progress;
- Allows comparisons between Schools and Directorates in terms of assessing how far they have journeyed toward NetZero;

- provides an adequate framework for implementing process improvements and attaining a higher level of excellence in the future.

Table 3: Climate Commissions or UK Higher and Further Education Maturity Model

Level	Maturity	Description
1	Emerging	Where UoD is currently positioned - just beginning its journey toward sustainability and NetZero
2	Established	Desired aim after 3 years - established approach to sustainability and structures in place to support it
3	Leading	UoD's position in 10 years and in a leading position across the Education landscape with capability to help other University's attain high level of sustainability and maturity

More information regarding the Road Map and the Maturity Model can be found here:

[file:///C:/Users/ilily001/Downloads/final\\_roadmap\\_25june2020\\_pptx%20\(1\).pdf](file:///C:/Users/ilily001/Downloads/final_roadmap_25june2020_pptx%20(1).pdf)

### Effective Language for Engaging Community

I am going to start this section by saying something rather controversial and it is this: while there are exceptions, most people will fail to see the need for change or understand the scale of transformation required to become a low carbon University. Bombarding these individuals with statistics, facts and evidence about climate change is unlikely to influence future thinking; more likely to entrench fixed thinking further. Instead, Sustainability Champions will need to develop a communications style that appeals to emotions rather than present facts, albeit facts will be used as part of that process. By focusing on emotional intelligence, the discussion makes global warming more relevant to people by talking about 'why it matters to them, their families, and their daily lives'. For example, a communication style that uses the word 'pollution' is more emotive than the phrase 'carbon emissions', because people want to live and work in a clean environment. The below cheat sheet provides some advice of

<b>How to Talk About the Climate</b>	
<b>No</b>	<b>YES!</b>
The University	People
Polar Bears	People
Emissions	Pollution
Carbon	Pollution
Greenhouse Gas	Pollution
Renewables	Clean Energy
The Environment	Air, Water, Food
Parts per Million	More and more pollution
Climate Impacts	Impacts on People/Extreme Weather
Fossil Fuels	Oil and Coal

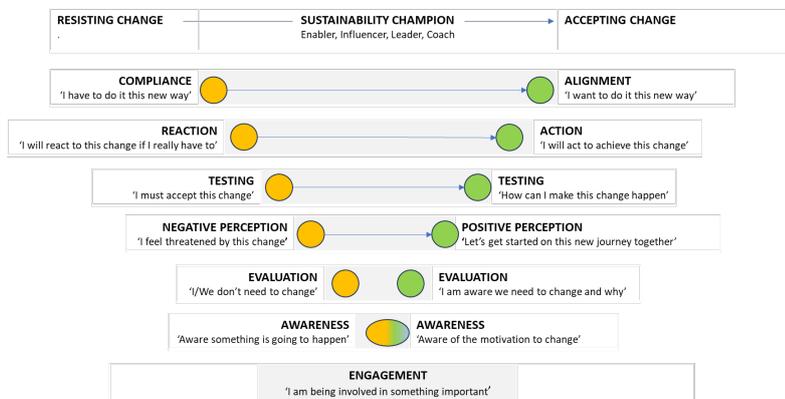
Source: Adapted from Drew Weston (2022), Research and Recommendations

### Sustainability Champion as key influencer of change.

When engaging with communities, whether individually or as a group, the Sustainability Champion will undoubtedly experience some form of resistance towards change. Understanding the reasons behind this resistance is complex, multifaceted, and varies widely from individual to individual. While some audiences perceive change as an opportunity and adapt/accept change relatively quickly (Early adopters), others may feel threatened by the change and will take their time to accept change, and some will not want to accept change at all.

Based upon the premise that people don't resist their own ideas toward change, the single most powerful component of influencing change is to engage with stakeholders in such a way that the idea for change comes from the community or from the individual, and not from the Sustainability Champion. In other words, the Sustainability Champion becomes a Facilitator or Enabler of change, rather than forcing change upon audiences. Individuals and communities therefore become fully engaged in problem finding, fully engaged in designing change solutions, fully engaged in planning implementation of change, fully engaged in the actual process of transformation, are fully engaged in dealing with resistance within their own communities and are fully engaged in celebrating the outcomes through non-monetary recognition.

This enabled approach, combined with effective language, is fully engaging and more effectively motivates groups and individuals to adopt change because they want to, whereas the forced or compliance approach forces people to accept change because they have to. The following graphic describes the difference between an enabled approach (right hand side) and the forced approach (left hand side).



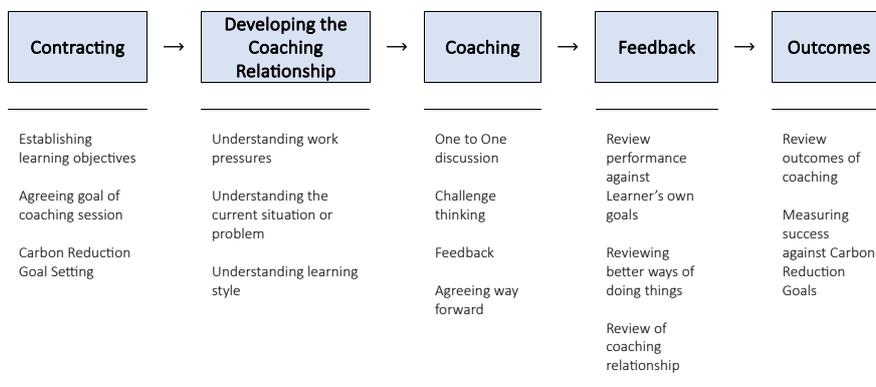
### Coaching and Support

Since the influencing of hearts and minds is a more powerful model of change than the forced or compliance route to change, the Sustainability Champion is highly likely to be involved in supporting peers through a coaching model or at least using coaching methodology to influence and encourage. This raises a few questions- what is Coaching? How does this differ from Mentoring? And how does a Sustainability Champion develop and practice the skill of coaching?

It is surprisingly difficult to define ‘coaching’ precisely. One school of thought believes that coaching takes the form of a non-directive conversation which allows the individual being coached to learn for themselves, rather than being given a solution or answer. Mentoring on the other hand is much more of a directive approach since it relies upon providing advice. Therefore, a mentor is much more likely to be a manager with expertise/knowledge of the work that a department is involved in. A Coach on the other hand may not be an expert but has the skills to enable a person being coached to explore options, unlocks the learners (person being coached) own knowledge and problem-solving capacity. A Coach simply applies various techniques (for example, observation, providing feedback, appreciation) and frameworks (for example CAT, TGROW) to facilitate a series of effective coaching conversations that leads the learners to self-discovery and a commitment to action. Hence the Sustainability Champion becomes an enabler of change not the doer.

That series of conversations is set out below as a process,

#### The Coaching Process



Over time, each Sustainability Champion will be given coaching training and be provided with one-to-one coaching sessions to improve understanding of each of the above Coaching stages, as well as developing the skills of the Coach.

### **Sustainability Champion as an Enabler of Community Engagement**

Conducting some form of community engagement or outreach programme, is a vitally important component to fully deliver the University's climate action ambitions. Depending upon the context, coaching as a method for engaging with a wide spectrum of colleagues, peers, and other members of staff, it is probably not suited to engage with a much wider stakeholder group, students, suppliers' local authorities, members of the general-public, neighbouring businesses or example. Therefore, Sustainability Champions could potentially become involved in the facilitation of community engagement events that involve members of these communities.

### **Planning Community Engagement**

The following steps can be utilised to effectively plan an engagement:

1. Plan to spend a lot of time in your engagement process – prepare and consult.
2. Research the community and involve diverse groups where possible.
3. Don't take anything personally.
4. Be patient.
5. Be creative.
6. Create an inclusive social group.
7. Reach out to leaders.
8. Provide a digital option.
9. Explore and ask questions.
10. Make people feel safe.

### **Managing the engagement**

1. Warmly welcome all participants.
2. Give participants a reason to be involved.
3. Provide transparency on climate action plans.
4. Use seed content or hook.
5. Connect with sub-groups.
6. Utilise social media to developing an online community.
7. Engage your disengaged members.
8. Be responsive.

**Engaging with Your School or Directorate**

When it comes to engaging with several people, each with different, sometimes strong, views, a workshop works best. Indeed, engaging people in workshops is an effective way to Schools/Directorates to utilise the Pledge, Plan, Proceed, Publish and Persuade model, and work through change that requires to be made to reduce carbon emissions. The following 'Workshop Plan' provides a simple guideline for facilitating such a workshop.

NetZero Workshop Planner					
Guideline Duration (mins)	Topic	Phase	Points to be Emphasised	Outcome	Facilitator
	Preparation	Set out room, check ICT	Configure room so breakout groups can cluster together. It can get a little noisy when there are more than two breakout groups in one room, to solve this problem consider organising where you have more than one room available so breakout groups can use these.		
30	Welcome and Introductions	House keeping Delegates introduce themselves	What to do if Fire Alarm is activated, where are toilets, etc What would the delegates like to learn from the session? Run through the Agenda for the session.		SC
20	Target setting to audience	Set out current emission footprint of the School or Directorate	If available, walk the group through emission analytics pertinent to your School /Directorate.  Aim to set a journey toward NetZero by establishing twin targets. The first set out to reduce emissions to absolute Zero within 12 months and secondly, set out a target that is practically achievable within 12 months.  Promote the development of breakthrough/new ideas that lead to innovation and carbon elimination rather than reduction.	Delegates know why they are there and what they have to do in terms of reducing emissions.	School Manager or Director
90	Breakout Group	Pledge and Planning	Where possible, assign different tasks to each breakout group.  Each breakout group to identify processes, issues, procedures, etc, and develop solutions that result in reduced/eliminates emissions.	Delegates produce a rudimentary action plan.	SC

			<p>Push each breakout group to develop new ideas that lead to carbon reduction and elimination.</p> <p>Push to deliver NetZero earlier.</p> <p>Creation of a 'Plan of Action' as key outcome.</p>		
30	Feedback Session	Pledge and Planning	Each breakout group presents and discusses their outputs to the larger audience. Audience allowed to discuss and challenge where necessary.	Refining of breakout groups action plans.	SC
15	Lunch	Lunch	Lunch		Break
90	Breakout Groups	Publish	Each breakout group considers what KPI's to use to measure progress and how these KPI's can be monitored and reported against	Development of data infrastructure	SC
	Feedback Session	Publish	Each breakout groups presents their KPI's and how they intend to measure, monitor and report progress.	Development of data infrastructure	SC

The fifth 'P' - Persuasion – is explored in the section titled Sustainability Champion as influencer of change

## Sustainability Toolkit

The majority of Sustainability Champions will be involved in activities to reduce emissions across five of the fifteen categories displayed in the Section titled 'Greenhouse Gas Protocol, of this Handbook. As a reminder, these are:

1. Procurement of Services
2. Capital Goods, including Capital Projects
3. Waste Generated in Operations
4. Business Travel
5. Employee Commuting

Please note that 'Upstream Leased Assets' and 'Downstream Leased Assets' will be facilitated by Sustainability Champions within the Estates Team, or by Estates themselves.

One simple framework that all SC can use to achieve targeted emission reductions across all of the above areas, is to utilise the 6R Model – Reduce, Reciprocity, Refuse, Reuse, Repurpose and Recycle. Please note that this is a framework not a process and can be mixed up a little depending upon context. The following examples will give you an idea of how each of the R's can be utilised to reduce the University's consumption habits.

### Examples

	<b>Reduce</b>	<ul style="list-style-type: none"> <li>• Reduce how many consumables and equipment each School/Directorate purchases each reporting period.</li> <li>• Work with procurement to encourage Suppliers to begin evidencing they're emissions.</li> <li>• Encourage suppliers/contractors to begin demonstrating a commitment to reducing they're emissions/footprint during tendering stages of procurement contracts.</li> <li>• Either reduce business travel or use different modes of transport that offer reduced emissions</li> <li>• Staff can change the mode of commute transport to reduce emissions.</li> <li>• Where possible, explore ways to reduce/eliminate waste (see below)</li> </ul>
	<b>Reciprocity</b>	<ul style="list-style-type: none"> <li>• Reduce the need to purchase capital equipment by cooperating with other Universities to set up an equipment sharing scheme/initiative that would reduce emissions.</li> <li>• Can equipment be shared with other Schools/Directorates?</li> <li>• If sharing equipment with other University's is possible, what impact would this have upon staff travel?</li> </ul>
	<b>Refuse</b>	<ul style="list-style-type: none"> <li>• Work with your Procurement Team about refusing the purchase of wasteful and non-recyclable products and packaging.</li> <li>• Work with Suppliers to reduce waste and refuse to accept unnecessary product/transport packaging.</li> <li>• Make smarter purchasing decisions by setting standards and expectations early in the tendering/purchasing process makes it</li> </ul>

		easier to work with suppliers and refuse to accept wasteful use of materials or lead to an increase in waste disposal.
	<b>Reuse</b>	<ul style="list-style-type: none"> <li>• Can items be re-used or used by other schools/Directorates, rather than storing, scrapping it.</li> <li>• Can items be reused rather than purchasing new items.</li> </ul>
	<b>Repurpose</b>	<ul style="list-style-type: none"> <li>• When designing a building, consider that in the future it could be repurposed i.e., lecture rooms repurposed into office accommodation.</li> <li>• Can everyday products/equipment be repurposed and used for something else.</li> <li>• Can existing equipment be repurposed rather than buying new equipment.</li> <li>• Create an 'Upcycling area for collecting supplies and equipment that staff from your School/Directorate no longer use and encourage colleagues and staff to visit the area before ordering new equipment.</li> </ul>
	<b>Recycle</b>	<ul style="list-style-type: none"> <li>• How much product or equipment that could be recycled isn't recycled or what % of products and equipment that the School/Directorate use is recycled?</li> <li>• Encourage recycling where possible.</li> </ul>

### Sustainability Champion as an analyst of data

Measuring carbon reduction is a fundamental element of Sustainability, Schools and Directorates will need the tools for understanding where they are, how far away or how close they are to their goals, and whether they are travelling in the right direction. That requires the development of a comprehensive toolkit or carbon management system that can establish carbon baselines and budgets, monitor progress, manage carbon consumption, and report progress. In other words, **‘what gets measured, gets done’**. Without some form of monitoring, the plans and ideas that have been brought forward from engaging with staff and the wider community, remain disconnected abstractions, rather than evidenced reality. However, at this stage, there is no intention of involving Sustainability Champions in the development and roll-out of a University-wide carbon management system, that may come later. However, there is a need to begin developing key performance indicators (KPIs from now on) that will monitor, track and evidence carbon reduction across each School and Directorate, for the simple reason:

- Sustainability indicators help each School and Directorate to provide a framework for deciding where to focus efforts or decided what the priorities are in relation to emission reduction or elimination.
- To motivate staff towards emission reduction and help them identify and celebrate wins.
- Demonstrate progress in environmental performance (ISO 14001 Standards) or social responsibility.
- And to communicate progress, wins and other factors to a broad spectrum of internal and external audiences.
- Brings excellence into sharper focus.

#### Guidelines for Developing KPI's

While KPIs may have been explored during the Carbon Reduction Workshops, they may need to be developed further, more importantly, staff who were not engaged in the workshops will have to buy-into using these KPIs going forward. Therefore, the first steps in developing KPIs is to engage with staff, at all levels, in the process of identifying KPIs developing them further, and testing the KPIs validity – do they measure what they are meant to measure? Do these measures add value? Do we need to measure these elements in the first place? Without this engagement, staff won't accept these KPIs as their own, rather the KPIs will be perceived as your KPIs. In other words, the Sustainability Champion will have accountability for the KPIs, rather than others taking ownership of them.

When engaging staff in developing KPIs, be cautious because teams tend to focus on what they want to measure, instead of focusing upon a goal, i.e., reduction or elimination of emissions. Similarly, if staff have never tracked emissions previously, they will only focus upon utilising data that already exists and avoid indicators where no data exists yet. Using data that already exists or is easy to track can show incremental progress at the early stages of Sustainability Champions intervention, often, this leads to significant issues going unnoticed. This is where coaching and engagement skills are required because the task needs thoughtful engagement around sustainability or emission reduction goals first, and then selecting indicators to track progress once these goals are established.

### Types of Indicators

While engaging with their colleagues, Sustainability Champions may want to consider using a mix of 'lagging' and 'leading' indicators. 'Lagging' indicators measure past results, while 'leading' indicators help predict future trends, for example, investing in reducing staff commuting will reduce tCO<sub>2</sub>e by *n*th % over the next five years.

In the main, KPIs are quantitative in nature, and while they should be relevant; that is, they should relate to the goal being assessed. However, there is no reason why qualitative indicators can't be used, particularly those that monitor a change in mind-set, or other form of qualitative measure, i.e., leadership.

Another aspect to be aware of, is that KPIs can take different forms. On one hand you can use absolute data, in terms of tCO<sub>2</sub>e for an operation or alternatively, KPI can be normalised by some form of common mechanism, i.e. carbon consumption by headcount. The best solution is to track and report both absolute and normalised data.

### Make KPIs SMART

Sustainability KPI should be Specific, Measurable, Agreeable or Actionable, Realistic (Remember to utilise twin indicators. They firstly set out to reduce emissions to absolute Zero within 12 months and secondly, set out a target that is practically achievable within 12 months), and Trackable.

### Limit the Number of KPIs

Often, there are too many KPIs that result in people feeling overwhelmed, for example, measuring 30 KPIs isn't realistic. One strategy for managing the number of KPIs and all associated data, is to streamline them over time. Schools and Directorates can focus upon 3 or 4 indicators a year and a different set of KPIs the following year. However, some indicators should be tracked on an on-going basis.

Another method some organisations use to limit the number of KPIs is to aggregate KPIs into one 'indexed' KPI. Simplifying KPIs in this manner loses trends and meaning. Some data will look doubly good while other data will look doubly bad, and it will be difficult to un-pick. Rule of thumb is, don't aggregate data.

### Accuracy of Data

Given that NetZero and Sustainability is a new and emerging field, the University has never previously had to measure their carbon footprint and consequently data often doesn't exist. In addition, given the complexity of sustainability it is often not possible to collect and analyse data as precisely as we would like. All too often, efforts to ensure precision are not cost effective. As a rule of thumb, don't be overly concerned about precision, data should simply be practical and easy to understand, it should be available and accessible, and it should be cost effective.

In terms of how to measure a School or Directorates emissions, the University is adopting the GHG Protocol. A guidance to Scope 3 calculations can be found at this link.

<https://ghgprotocol.org/scope-3-calculation-guidance-2>

### Data from external stakeholders

One of the biggest challenges for Schools and Directorates, is to evidence GHG emissions for the products and services that are frequently purchased, including one-off purchases for capital goods equipment. On this, suppliers use different methods, some don't measure emissions at all, the accuracy of suppliers' emission returns could be questioned, and some take a corporate stance of 'carbon neutrality' but can't back this statement up with any evidence.

Sustainability Champions are encouraged to work with Procurement and Finance Teams (suppliers provide emissions evidence on invoices), who should create enough pull to begin addressing these issues and encourage suppliers to change.

### Presenting Data

There are a number of different ways for presenting data, you could, for example, (i) visualise data using graphs, tables and charts (see below), (ii) you could simply talk about your findings, (iii) you could provide a written summary of your findings, or alternatively, (iv) you could combine all three techniques into one editorial. What strategy you use is dependent upon your audiences learning style.

### Types of Charts

Basic types of charts and graphs could potentially be used to visualise emission data. They can also be used in combination to create a Dashboard or Infographic

#### Bar Graphs

Can be adopted to show numbers that are independent of each other. Example data might include things like reduction of emissions across Goods and Services, Capital Goods, Staff Travel, etc

#### Pareto Chart

Pareto Charts are essentially Bar Charts that appear in descending order, however there are a couple of subtle differences. The first is the 80/20 rule, which suggests that 80% of University's emissions are caused by 20% of operational activity. Secondly, Pareto Charts often have a cumulative trend line incorporated into the chart. This trend line is simply cumulative percentage total of a sample, in this case carbon emissions.

#### Pie Charts

Visualises how a whole is divided into different parts. For example, Goods and Services could potentially be divided into a series of procured goods, computer equipment, office equipment, consumables, raw materials, etc, and proved a value and % value for each segment over a chosen time period.

#### Line Graphs

A Line graph is designed to visualise a trend or evidence that something has changed over time. For example, a line graph could be used to evidence trends in reduced energy usage or a reduction of emissions over time.

