GREATER LONDON AUTHORITY

Workshop 3: Skills planning for Net Zero FE Colleges

The Estimated Cost of Achieving Net Zero Carbon by 2030 in London's Further Education Colleges

24 April 2024

2. The ‘people’ dimension to achieving Net Zero

The ‘people’ dimension to achieving Net Zero

Net Zero FE colleges by 2030

Decarbonise operations and estates

People lead and deliver the work

Develop a system of change between people and carbon

What do we mean by Net Zero for FE Colleges

Achieving Net Zero will mean that the activities of FE colleges **do not add** to the total amount of greenhouse gases (GHG) in the atmosphere and **stop any additional** contribution to human-caused climate change. We talk about Net Zero through the Greenhouse Gas Protocol (GHGP), which is the standardised and internationally recognised framework for emissions accounting and a recognisable method of reporting emissions to external stakeholders.

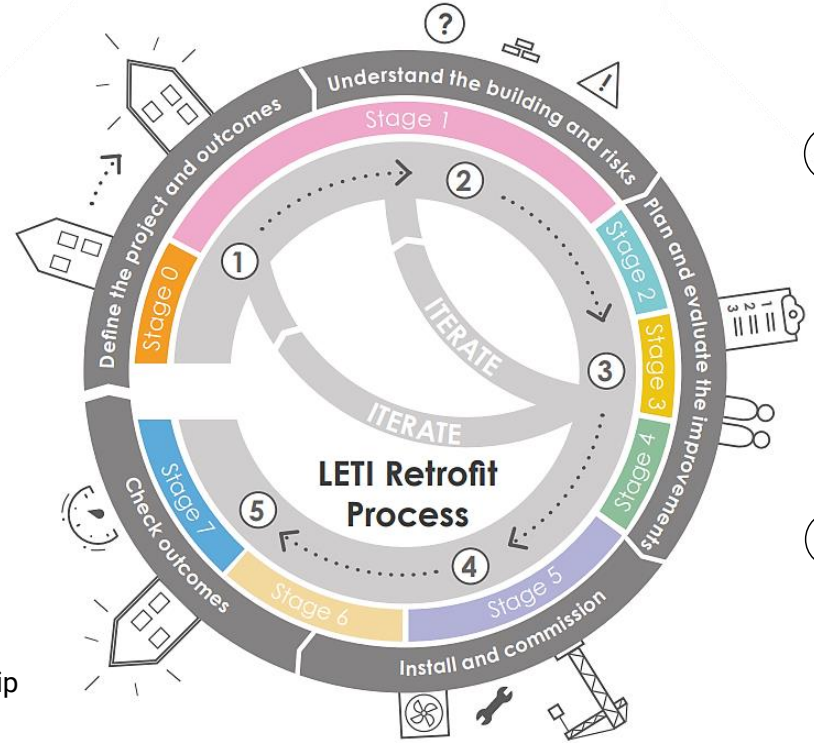
Area of emissions	Definition	Target activity
Scope 1	Direct emissions from sources that a college owns or controls	Buildings, fleet, energy within the direct control of the college
Scope 2	Indirect emissions from the generation of purchased energy	Electricity purchased for the college
Scope 3	Indirect emissions from the value chain of a college	Transport, supply chain, and other activities that are indirectly emitted through the college's supply chain

Processes behind a Net Zero FE College by 2030

1

What will be addressed?

- Fossil fuel free
- Energy use intensity
- Space heating demand
- Hot water demand
- Renewable energy



2

How will it be addressed?

- Heritage constraints (external appearance, access to areas)
- Space constraints
- Space heating demand and energy use intensity challenges
- Suitable technologies

4
5

How will it be installed and monitored?

- External consultants
- In-house expertise
- Funding criteria
- Monitoring
- BMS incorporation
- Report back to senior leadership

3

How will it be evaluated?

- Carbon reductions
- Financial payback (NPV etc.)
- Wellbeing and productivity
- Funding criteria
- Modernisation of facilities

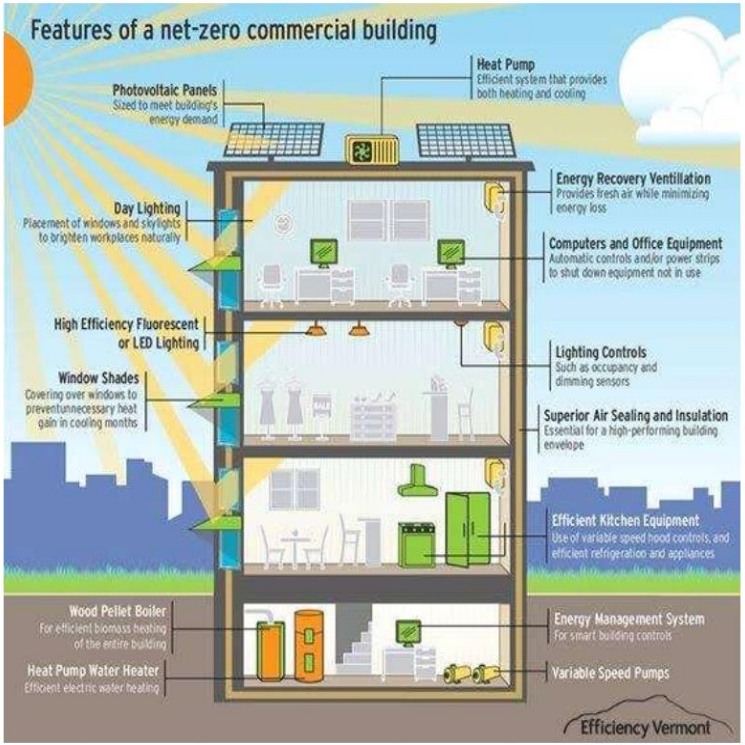
LETI Climate Emergency Retrofit Guide

CONSTRAINED **UNCONSTRAINED**

Jobs and skills behind a Net Zero FE College

Design
Architect
Energy assessor
Structural engineer
Quantity surveyor
Project manager

O&M
Engineers
Plumber
Electrician
Contracts manager
Procurement
BMS engineer
Energy manager
Project manager
Estates manager
Builders



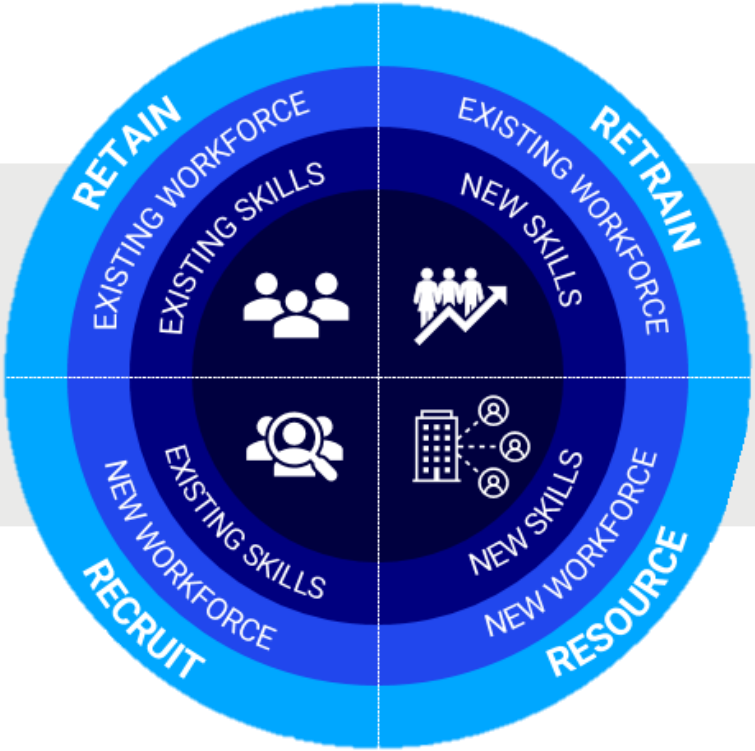
Low carbon skills
Technical consulting
Low carbon heating
Engineering
Installing for energy efficiency measures (e.g. fabric insulation)
Renewables installations
Project management

Associated skills
Finance
Procurement
Contracts
Human resourcing
Funding applications
Sustainability
Senior leadership

Building Occupants

A whole systems approach to skills planning

- Leadership and Governance
- Skills and training development
- Estates and operations
- Partnership and engagement
- Data collection
- External net zero activities



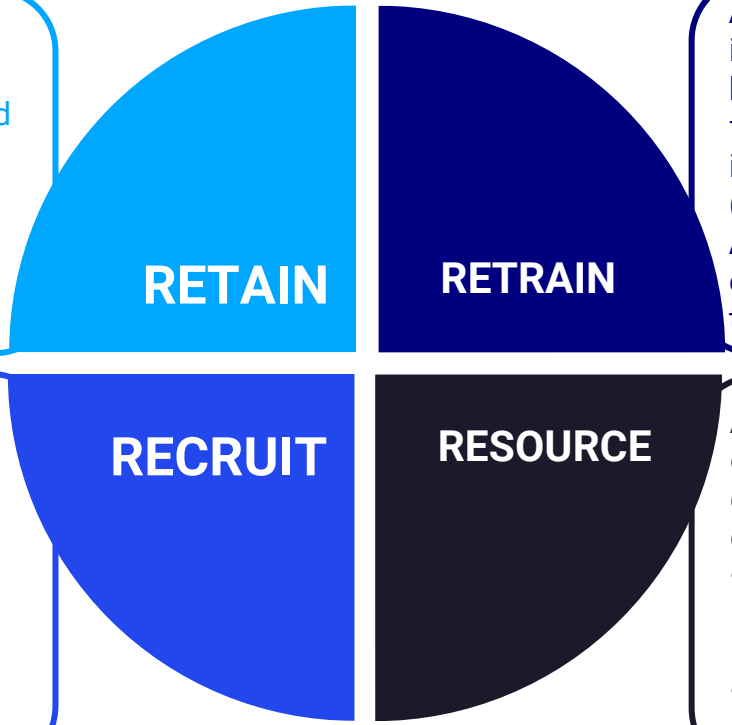
Net-Zero skills environment

Adapted Climate Action Roadmap

Adapted framework from OPITO UKCS '[The Skills landscape 2019-2025](#)'

Applying the 4Rs to FE college staff

Applies to existing staff working across the areas of work outlined in Climate Action Roadmap.
Actions include clear communication; recognition and reward, career advancement.



Applies to existing staff with increased demands in level of knowledge or a transition away from roles and tasks that do not include green considerations (e.g. gas-boiler maintenance).
Actions include training plans, continuous learning, offer access to resources.

To identify recruitment gaps, actions include understanding how staff will get the level of knowledge they need to do their jobs (mapping).

- Are there gaps in the current capabilities where new skills are needed to be brought in-house?

Applies to areas of work that are outside of the college's day-to-day activities and may need to be outsourced.

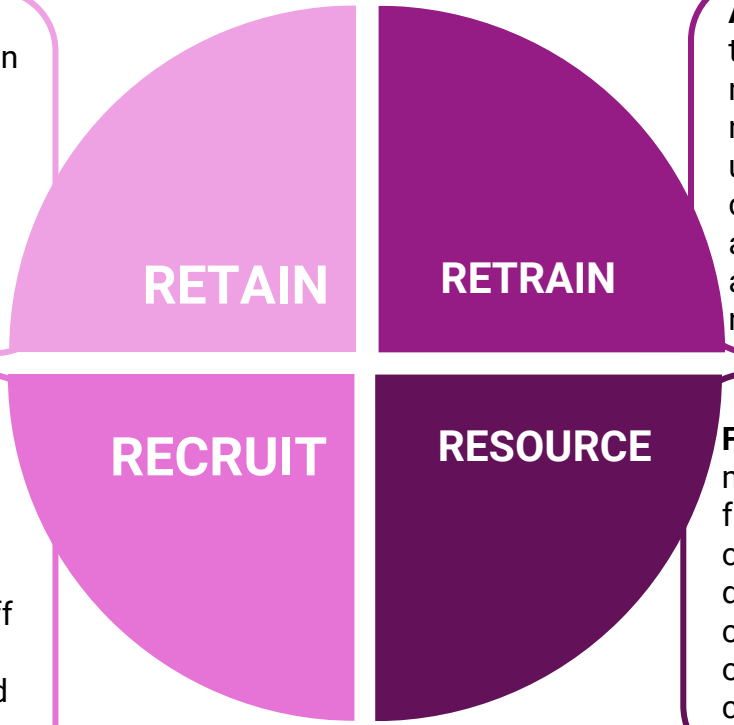
- What decarbonisation activities are one off, e.g. installations?
- Activities that are specialised

Scope of activities – mapping exercise

Work areas	Target personnel	Knowledge	Purpose	Actions	4Rs Pathway
Leadership and Governance	Governors/ leadership	Basic carbon literacy knowledge and SDGs	Give leadership / understand the big picture	Incorporate net zero into strategic plan	*RETAIN, RETRAIN, RECRUIT*
Teaching, Learning, Research	Staff, students, researchers	Interconnection between sustainability and the curriculum	Increase awareness on sustainability and climate change	Deliver CLT training and map SDGs in the curriculum	*RETAIN, RETRAIN, RECRUIT*
Estates and operations	Estates managers, technicians, groundskeepers, waste and environment staff	Knowledge on sustainability strategies	Identify and implement energy reduction strategies	Reduce energy, waste, travel emissions on college site	*RETAIN, RETRAIN, RECRUIT*
Partnership and engagement	Procurement staff (teachers, admin, liaison staff)	Basic carbon literacy knowledge and SDGs	Advocate for sustainability initiatives	Engage with the local community (local climate network)	*RETAIN, RETRAIN, RECRUIT*
Data collection	Cross-cutting	Understand carbon reporting	Calculate baseline emissions and annual reporting for progress	Calculate college carbon footprint	*RETAIN, RETRAIN, RECRUIT*
External net zero activities	Technical contractors	Outside the college's expertise	Contribute technical skills or resources	Execute one-off projects	*RESOURCE*

Challenges to the 4Rs

Limited strategic direction has an impact on staff retention, where staff frequently face competing priorities due to time constraints and working hours. Often operations and academic staff **work in silos**.

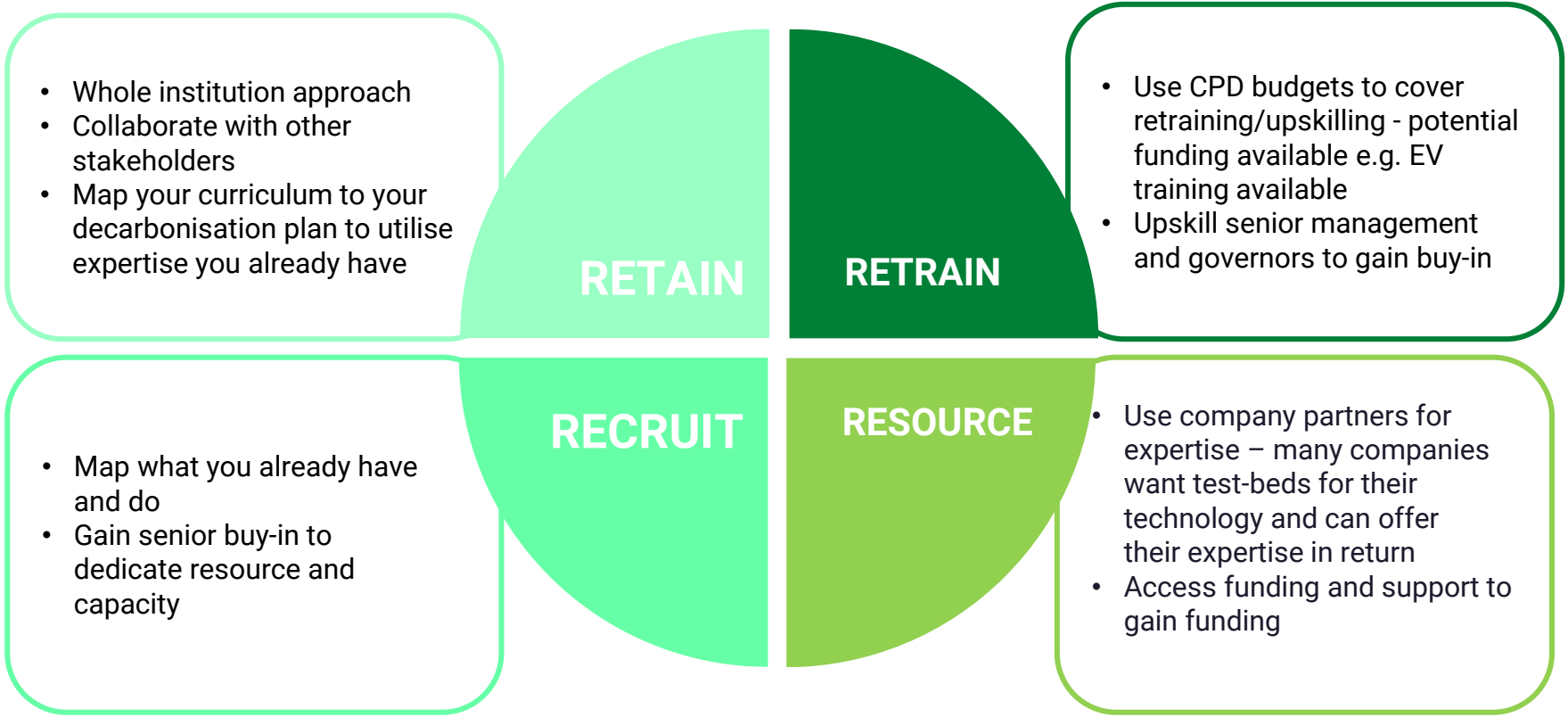


A skills shortage where transitioning to green skills means that some courses may not exist yet. There is a need to upskill current colleagues to communicate with their students about their subject areas. Both academics and operational staff need retraining.

A lack of structure and coordination also prevents a comprehensive approach to decarbonisation.
Financial constraints can also prevent recruiting dedicated staff for decarbonisation. Many colleges do not have a dedicated sustainability role, which is often spread across different roles.

Financial constraints prevent marking internal or external funding to hire external consultants for larger decarbonisation projects and carbon reporting. There is also often **limited capacity** within a college to manage large projects.

Example ideas on tackling skills challenges



- Whole institution approach
- Collaborate with other stakeholders
- Map your curriculum to your decarbonisation plan to utilise expertise you already have

- Use CPD budgets to cover retraining/upskilling - potential funding available e.g. EV training available
- Upskill senior management and governors to gain buy-in

- Map what you already have and do
- Gain senior buy-in to dedicate resource and capacity

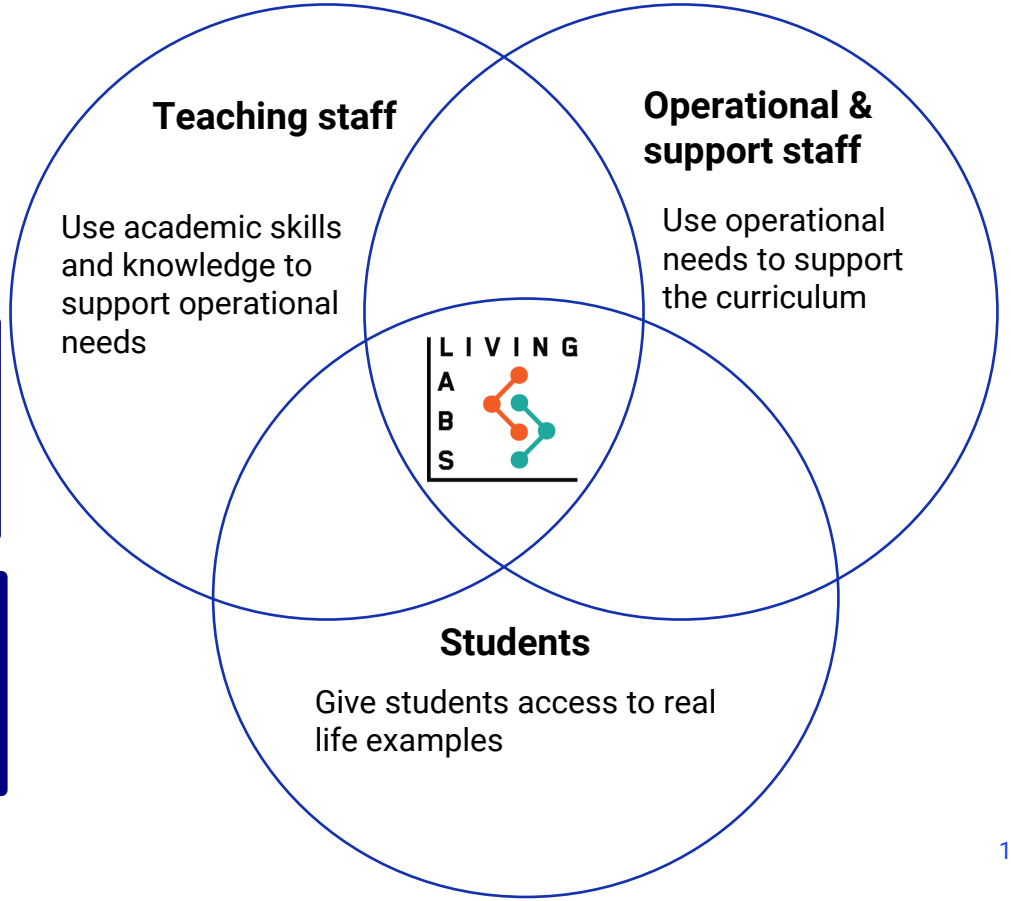
- Use company partners for expertise – many companies want test-beds for their technology and can offer their expertise in return
- Access funding and support to gain funding

Innovative approaches to skills management

A Living Lab can be where learning is promoted through utilisation of the campus as a test bed for innovation and progressing skills and knowledge in sustainability and decarbonisation for the benefit of both students and staff.

Benefits:

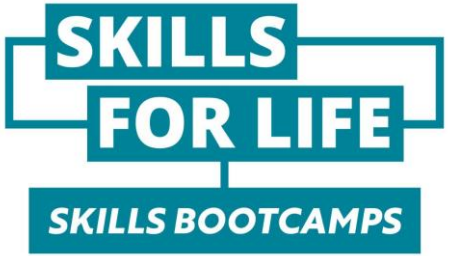
- Inter-disciplinary learning
- Improve employability for students
- Collaborative approach
- Utilising expertise that you already have



3. Identification of funding

Available funding

1. Public Sector Decarbonisation Scheme - Salix
2. Public Sector Low Carbon Skills Fund
3. Retrofit Accelerator - Workplaces
4. Low Energy Accelerator
5. Local Skills Improvement Fund (LSIF)
6. Skills Bootcamps for Londoners



4. Bedford College Case Study

Bedford College Group

Our Journey (so far…)

By Dave Roffey, Director Of Projects and Sustainability

What have we done?

How have we done it?

Celebrate Success!

Energy Performance Certificate
Non-Domestic Building

HM Government

Construction Centre
Cauldwell Street
Bedford
MK42 9AH

Certificate Reference Number:
8867-8748-9577-9440-4298

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating

More energy efficient

A+

-14 This is how energy efficient the building is.

Net zero CO_2 emissions

A 0-25
B 26-50
C 51-75
D 76-100
E 101-125
F 126-150
G Over 150