## Carbon Literacy Training

Adapted for the University of Worcester by Katy Boom, Sian Evans, Gill Slater, Jess Tasney

#### Session 4: Climate Solutions (2) and Group Action



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#### **Session four: learning outcomes**

- Consider the role of solutions in achieving net zero
- Learn about the co-benefits of climate solutions
- Consider how to plan and take actions for climate as a group

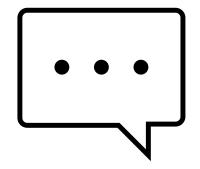


#### Individual climate action: activity

Last session we covered some individual actions that we can take to reduce our carbon footprint at home and at work.

What individual action have you committed to take on the back of this training? And, why did you choose this action?

#### Please share your answer in the chat box.





## Activity: how do solutions at different levels interact for a net zero future?

The My 2050 tool brings together solutions at all levels and across all sectors and demonstrates how they can work together to achieve emissions reductions.

Use the tool to create a net zero future by adjusting the levers.

What does this tool reveal to you about climate change solutions?

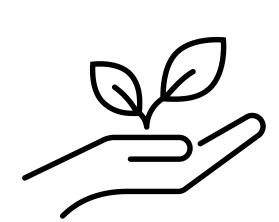


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https://my2050.beis.gov.uk/?levers=1111111111111111111

#### The co-benefits of climate solutions



'Climate co-benefits are beneficial outcomes from climate actions that are not directly related to climate change mitigation. Such co-benefits include cleaner air, green job creation, public health benefits from active travel, and enhancing biodiversity through expanding/ enhancing green space.

Planning climate action that also delivers co-benefits can maximise opportunities to address multiple social, environmental, and economic challenges.'



## The co-benefits of renewable energy and energy efficiency measures



Better insulated homes reduce energy costs for residents

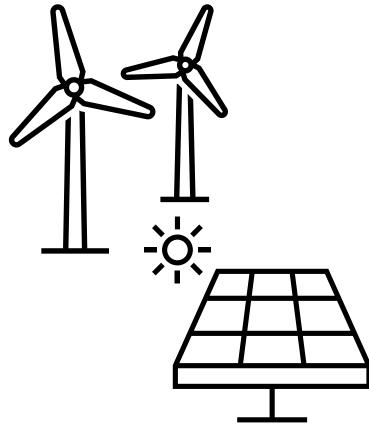


Improved air quality

Green jobs and upskilling the workforce



**Resilience** to spikes in energy costs





# The co-benefits of electric vehicles and public/ active transport



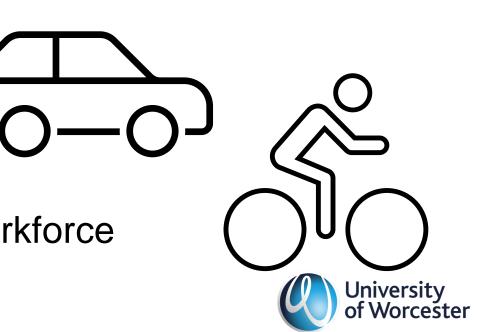
Mental and physical health benefits



Improved air quality

Reduced noise pollution

Green jobs and upskilling the workforce





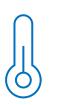
#### The co-benefits of enhancing green space and biodiversity



Mental and physical health benefits



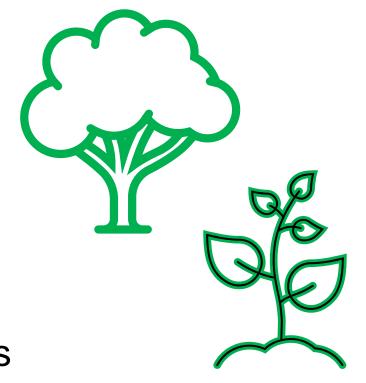
Improved air quality



**Temperature management** – reducing the urban heat island effect



#### Educational and community benefits



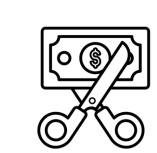


#### **Case study: retrofitting Copenhagen schools**

Benefits from retrofitting 5 Copenhagen schools:

GHG |







18% reduction 34 new jobs Net present 19% reduction Productivity in GHG value: in energy costs value created \$19.5 million emissions \$840,000 per Payback year time: 7 Years **Jniversity** 



#### **Co-benefits**

### More cycling and walking

Investing in active travel infrastructure such as footpaths and cycle lanes

#### Worcester City and County Councils, Diglis Bridge

- In 2016, Worcester City and County Councils built the Diglis Bridge, providing a traffic-free option for crossing the River Severn south of the city centre
- Overcoming major barriers for cyclists and walkers, and contributing to the development of an active travel network
- Pre-construction annual average of 31,000 active trips to pass the west bank riverside. After construction this increased to 465,000
- Approximately 20% increase in riverside bar and restaurant sales.







#### **Retrofitting student accommodation**

Retrofitting means updating a home to make it more energy efficient. Retrofitting can include anything from wall and loft insulation, draught-proofing, double glazing, LED lighting, and the installation of renewable energy systems like solar panels.

### The University of Worcester, retrofitting Halls of Residence

- Project installed insulation and a solar thermal system to a Halls of Residence building
- Renewable energy source to heat hot water, with a 37% decrease in energy for heating hot water
- Annual financial savings of £3,421
- Significant carbon savings







Community

Equity &



Jobs & Economy Ţ

Resilience



space



#### **Sustainable diets with One Planet Plate**

Engaging with universities (including the University of Worcester) and businesses across Europe to reduce carbon emissions and promote health and wellbeing through sustainable diet choices.

### Sustainable Restaurant Association, Su-Eatable Life

- The project merges behavioural science, carbon footprinting and technology (via an app) to encourage low-carbon, healthy diets.
- Since implementation in 2018, 59,300 students and 10,000 employees have been reached.
- Results include savings of 4,750 tonnes of CO2e and 1.9 million cubic meters of water





Health



Equity &

Community

Jobs & Economy



Resilience Green space



### **Urban greening**

Update local planning strategies and work with partners to encourage nature-based solutions such as increasing the number of trees across councilowned areas.

#### Worcester City Council, tree planting initiative

- Across 2020/21, Worcester City Council worked with partners to plant 6,650 new trees across Worcester to enhance biodiversity, reduce noise and flood risk, and provide shade in warmer months.
- 4000 broadleaved trees were planted in Perdiswell and a further 1500 were planted at Diglis Playing Field to create woodland walkways. The reaming trees were planted in various locations.





Health



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space





## 5-minute break time!



#### **Group actions: communicating about climate change**

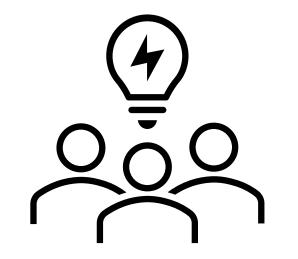
Being able to communicate about climate change is an important part of motivating and taking part in group actions for climate change.

https://www.youtube.com/watch?v=RkklaXhbTuA -





#### **Group actions for climate change**



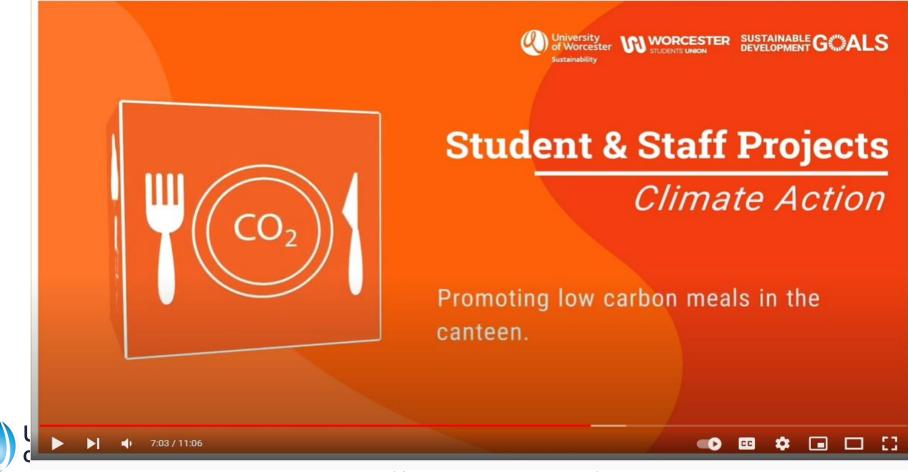
Action on climate change is most impactful when we work together.

How are we going to take away learnings from this course and communicate them/ translate them into group actions?



#### **Examples of group actions for climate**

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https://www.youtube.com/watch?v=z1eAa-jrMvQ&t=378s

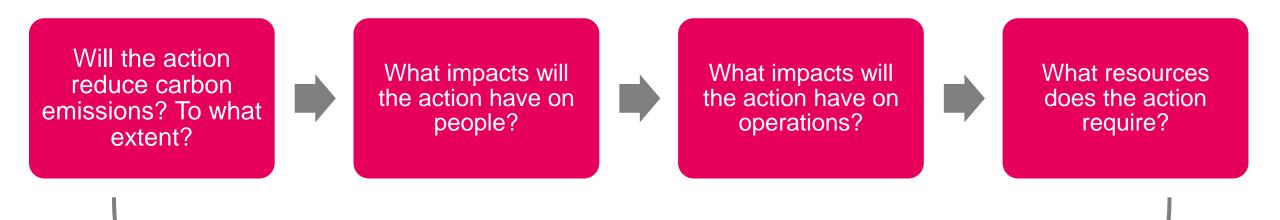
# Examples of group actions for climate: Go Green Week



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https://www.worcsu.com/sustainability/gogreenweek/

# Group actions for climate: what should you consider?



## Is the action practical and impactful?



#### **Group actions for climate: example ideas**

*'I'm going to suggest that we start a de-branding and reusing/recycling process for workplace uniform'* 

'I'm going to work with my team to strengthen sustainability requirements in our tendering processes'



'I'm going to put forward the idea of sustainable investments and choosing green accounts to the Treasury team'

'I'm going to work with my team to prepare a business case for electric grounds maintenance equipment'



*'l'm going to work with my team to introduce a book swapping schemes to encourage the reuse of books.'* 

#### **Groups actions for climate change: activity**

 Introduce yourself and your role. As part of your introduction, highlight environmental concerns you have that are specific to your role e.g., paper waste, environmental impact of supply chains, biodiversity loss, emissions associated with travel etc.

Once everyone in the group has introduced themselves:

• Work together to develop ideas for group actions (relevant to the concerns highlighted in introductions) that each of you can take back to your teams at your organisation.

The purpose of this activity is to generate ideas for group actions that participants can take away and develop with colleagues after the training.

If you would like a facilitator to join you, just pop back into the main room and ask. If your group finishes early, you may rejoin the main room for discussion.



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#### **Assessment form guidance**

Assessment forms are the **only evidence** that the Carbon Literacy Project uses to decide whether to certify learners – make sure your form reflects your understanding.

Your individual and group action should both be work-based (where possible), and it is important that your actions are measurable. In your response about individual and group action, try to include:

- ✓ What the action you're pledging is (remember to try and keep this work-based)
- ✓ What **steps** you need to take to adopt it
- ✓ How you could evidence the impact of your action

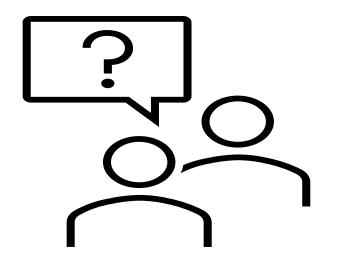




#### **Assessment form and questions**

We now have some time for you to open and begin your assessment form/ask any questions you have about the training/ assessment.

Assessment due date: Tuesday 12 July





"Climate change is the single greatest threat to a sustainable future but, at the same time, addressing the climate challenge presents a golden opportunity to promote prosperity, security and a brighter future for all."

Ban Ki-Moon, Former Secretary-General of UN



### **Additional resources**

<u>The Power of People – report by Jump and Arup</u>

Can you reach net zero by 2050? Interactive game by the Financial Times

Nine things you can do about climate change by Grantham Institute

The Energy Saving Trust

The Carbon Trust

Take Climate Action







#### Feedback

We'd love to hear more about how you found this training session. Please use <u>the link</u> to answer three quick questions that will help with our continual improvement of the training.

