

Energy is everything

Webinar 1, Wednesday 12th February, 2025

Welcome to Bright Green Future!







What is BGF?





Knowledge

- sustainability, energy, climate

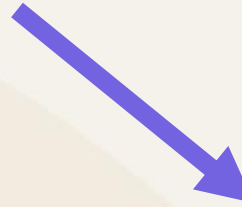
Frameworks and theories

- Systems thinking, fairness and justice, sustainable development



Personal development

- what's important to you?
- career thinking - what is meaningful work?
- how can you use your work to tackle environmental issues?
- creating connections with amazing people from all around the UK!



Skills

- thinking in systems and networks
- working individually and in groups
- where and how can you create positive change
- networking with sustainability professionals



Time Breakdown of a Long Human Life



The Really Big Picture



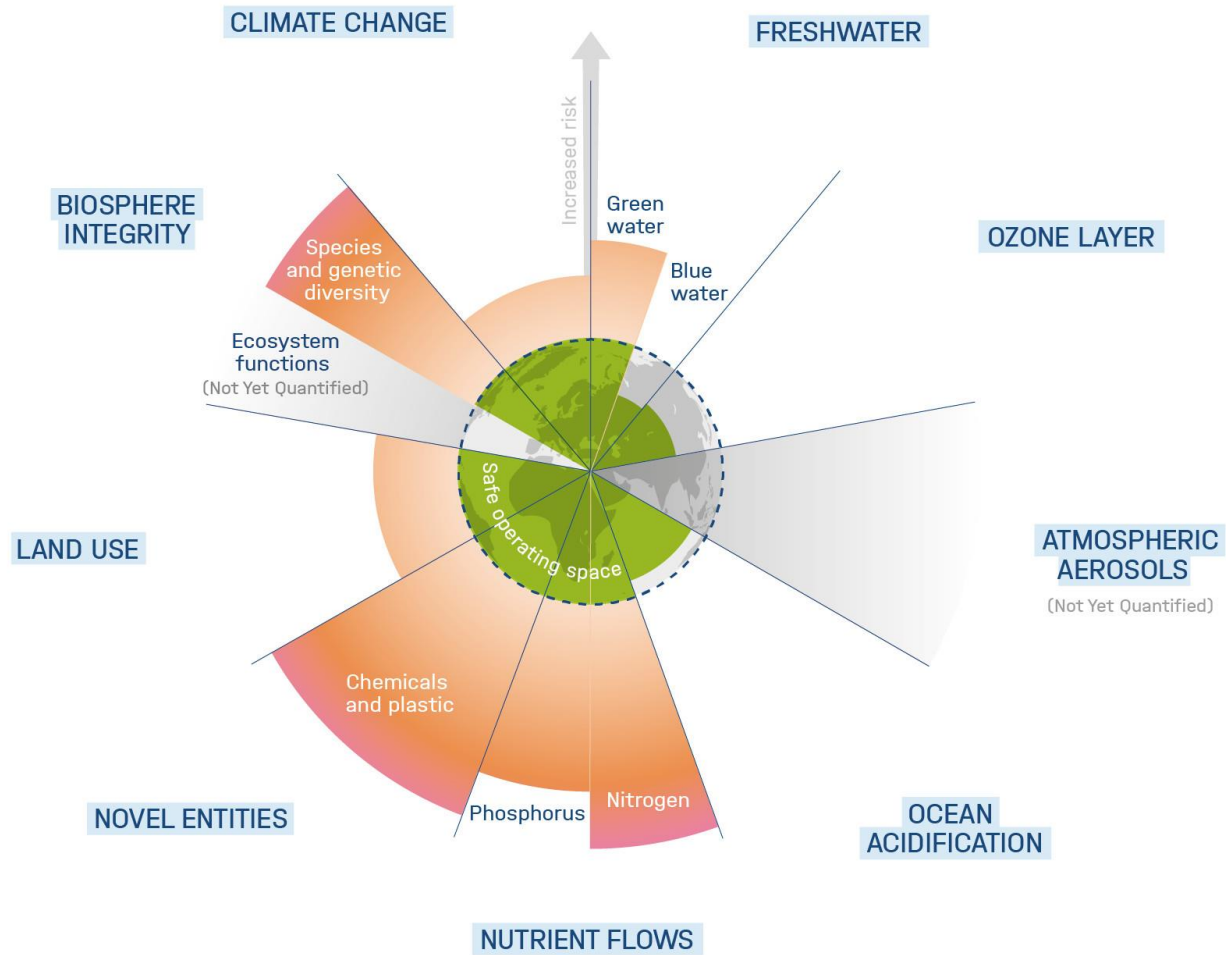


Planetary boundaries





PLANETARY BOUNDARIES

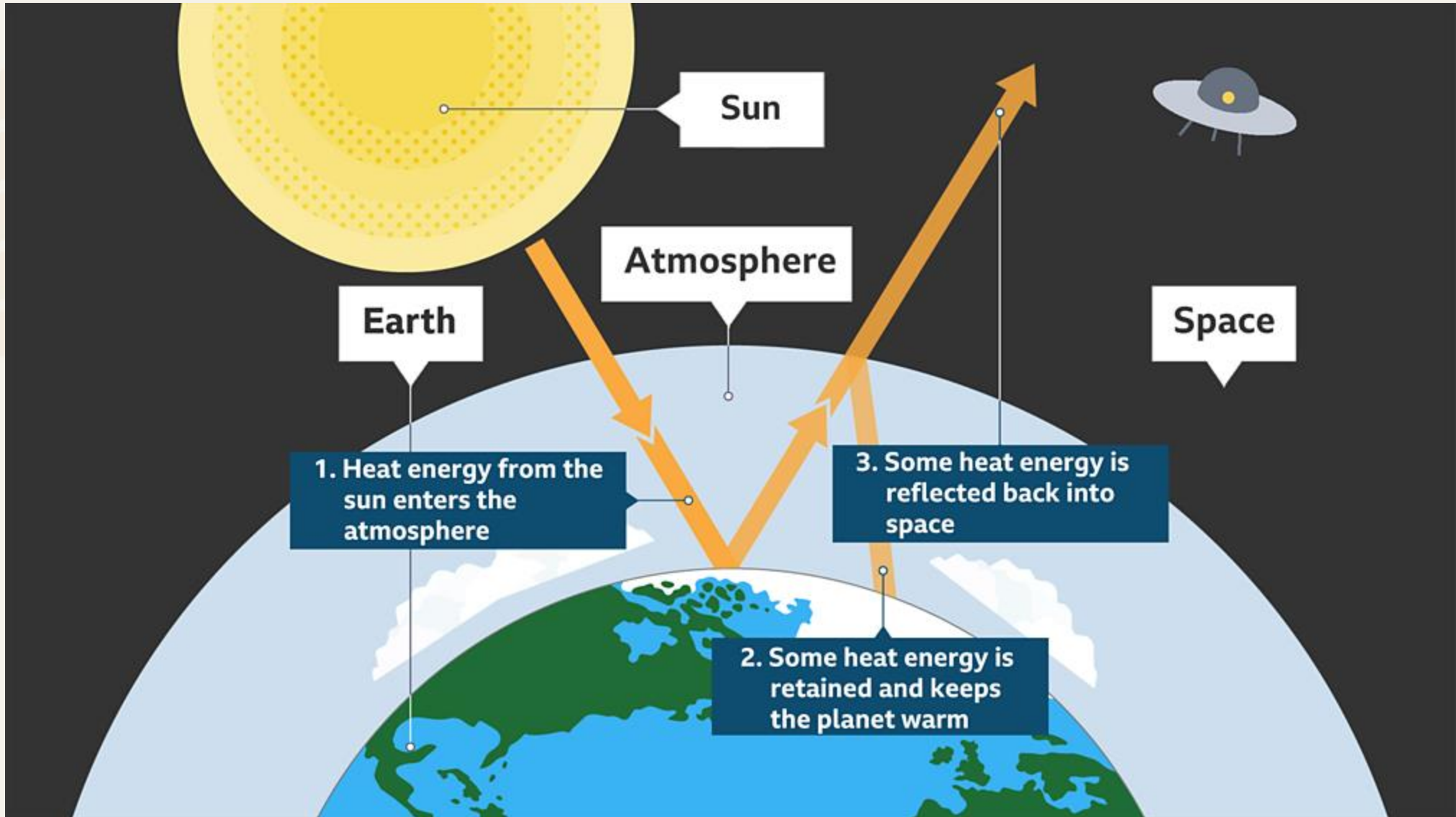


Adapted figure originally produced by Azote for Stockholm Resilience Centre, based on analysis in Wang-Erlandsson et al., 2022, Persson et al 2022 and Steffen et al 2015.

● Safe operating space ● Planetary boundary exceeded



Climate Change 101



Why the focus on energy?





Energy Sector's Climate Impact:

- Approximately 73% of global greenhouse gas emissions come from energy production and use
- Electricity and heat production account for 31% of total global emissions
- Transportation contributes another 15% of global emissions, largely from fossil fuel combustion





Key Context:

- Fossil fuels (coal, oil, gas) represent about 80% of global energy consumption
- Renewable energy sources currently provide only around 11% of global energy needs





Critical Challenges:

- Global energy demand is projected to increase by 50% by 2050
- To limit global warming to 1.5°C, we need to reduce carbon emissions by 45% by 2030



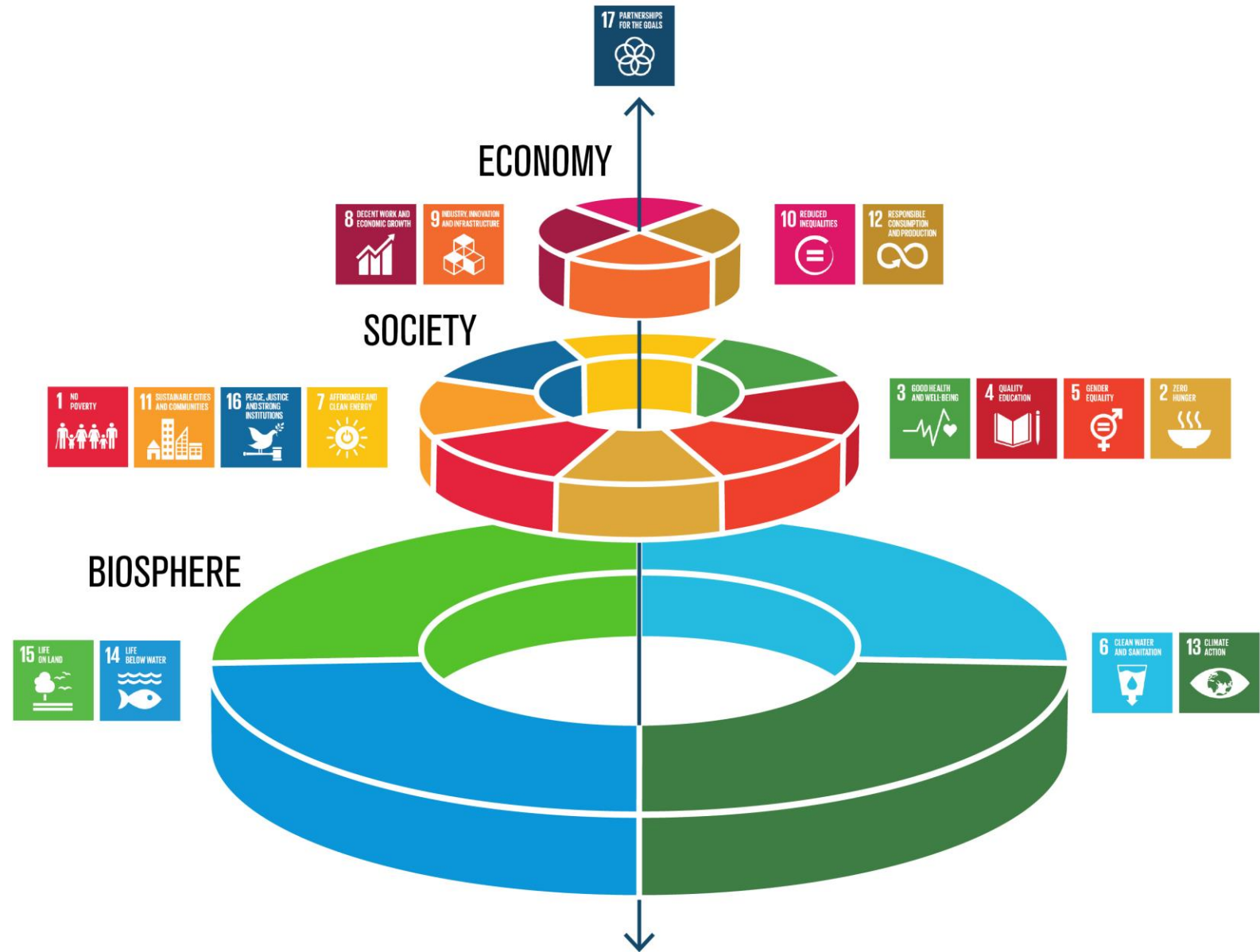
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Potential for Impact:

- Renewable energy technologies have become increasingly cost-competitive
- Solar and wind energy costs have dropped by over 80% in the last decade
- Every percentage point increase in renewable energy reduces carbon emissions significantly
- Transitioning to clean energy could prevent up to 4 million premature deaths annually from air pollution







Why the focus on energy?
Now you know!

New Thinking?







Simple problems

- Cause > Effect



Agreement



Certainty



Complicated problems

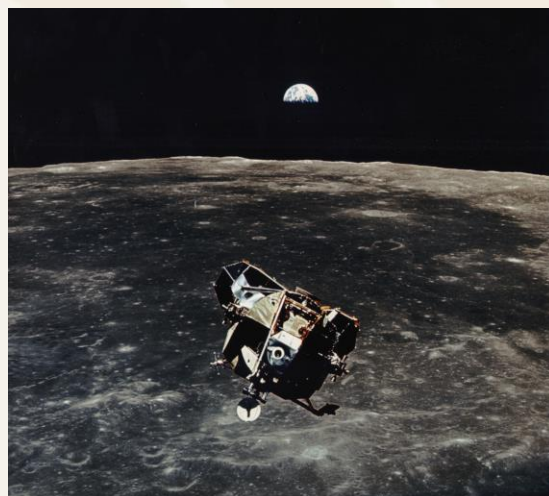
- Multiple parts
- Requires deep knowledge



Agreement



Certainty



Complex problems

- Unique
- Highly unpredictable
- Emergent
- No obvious right solution



Agreement

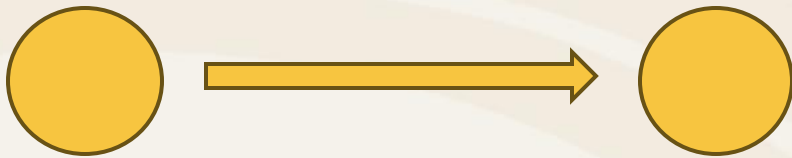


Certainty

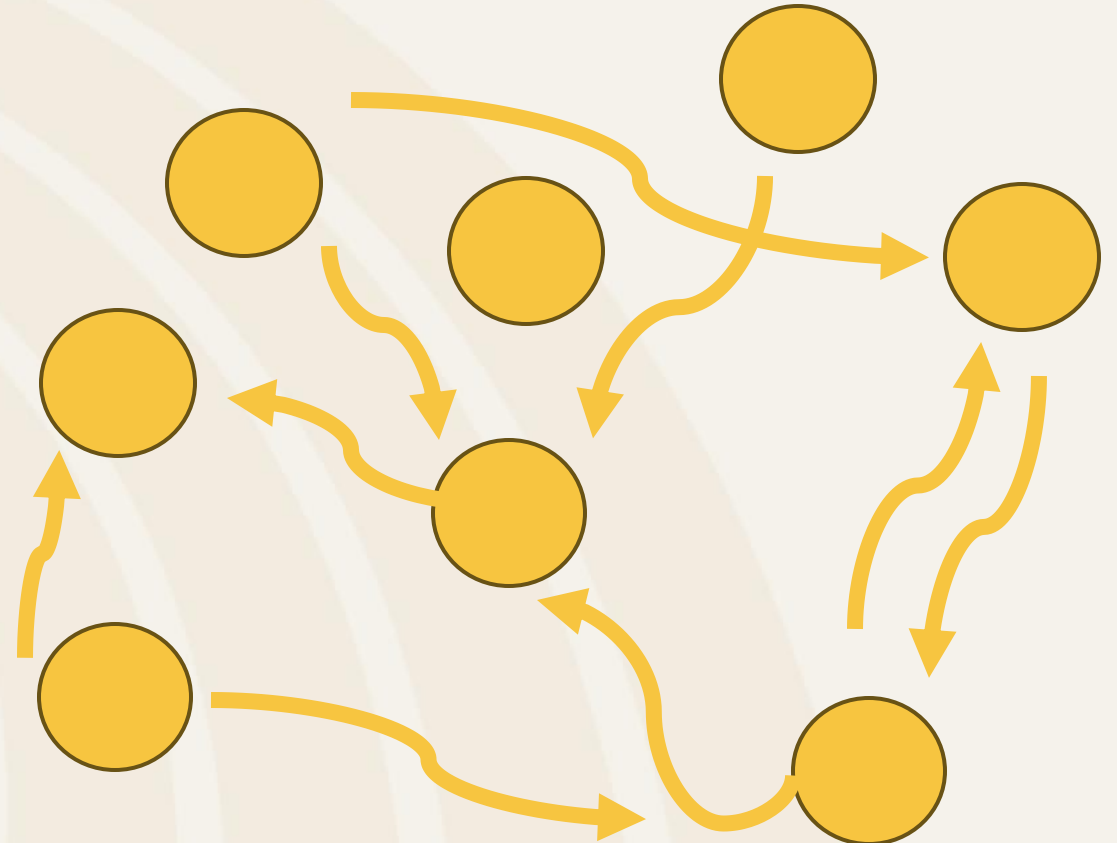


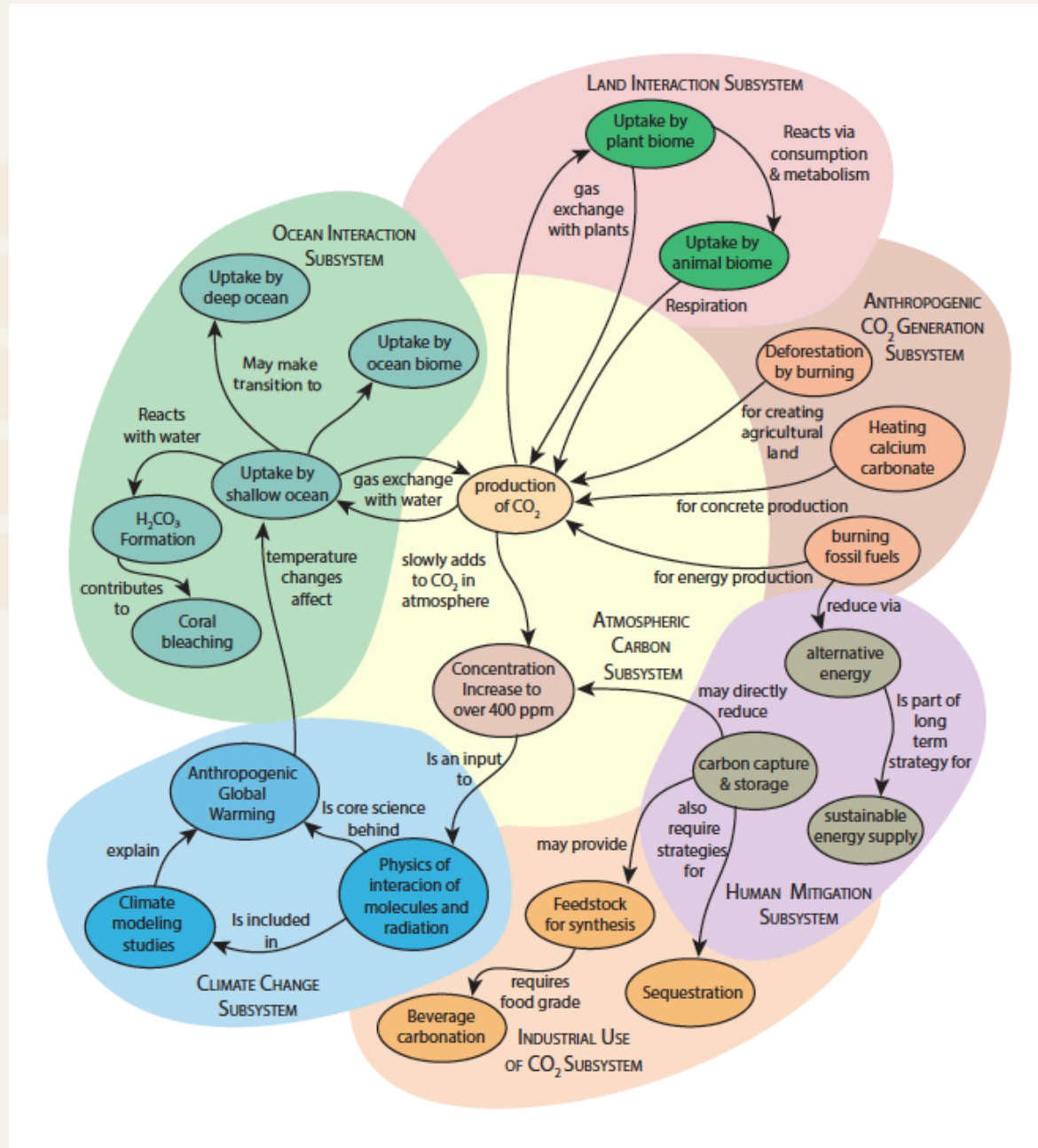


Traditional thinking



Systems thinking







What systems and networks
are you part of already?



A Social-Ecological Model for Physical Activity - Adapted from Heise, L., Ellsberg, M., & Gottemoeller, M. (1999)



What systems and networks
are you part of?





Recap!

- Introduced BGF – the head, heart and hands
- Planetary Boundaries
- Climate 101
- Energy and why it matters (a lot)
- The UN's Sustainable Development Goals (SDGs)
- Systems Thinking

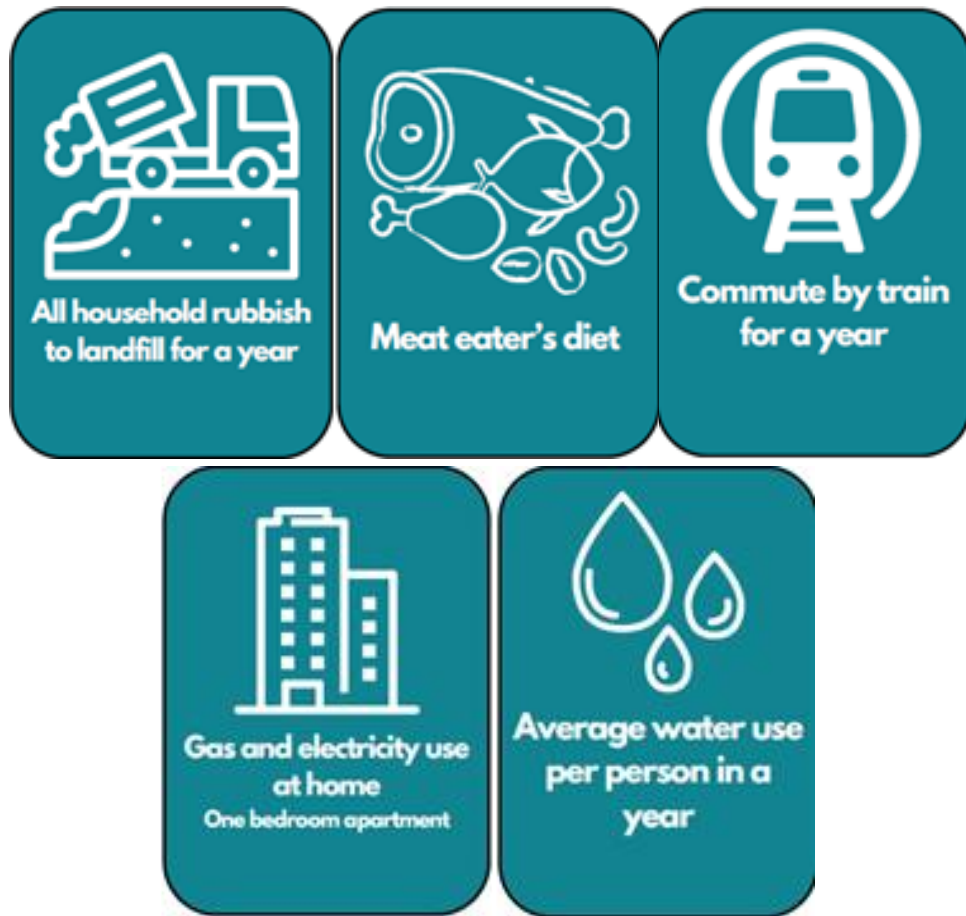
Enough talk

Time for an activity!





Carbon Activity



- ✓ Work as a group to order the carbon emissions cards from lowest to highest
- ✓ When you're happy with the order, the breakout leader will show the "answers"
- ✓ Discuss.



Discussion

- 1. What has come up for you so far?**
- 2. Thinking about your carbon footprints:
Why haven't we solved our emissions yet?**



Who is responsible?

What's equal?

Can we be fair and fast?



Why isn't this working?







Perhaps the founder of the National Resources Defense Council, Gus Speth, said it best: "I used to think the top environmental problems facing the world were global warming, environmental degradation and eco-system collapse, and that we scientists could fix those problems with enough science. But I was wrong. The real problem is not those three items, but greed, selfishness and apathy. And for that we need a spiritual and cultural transformation. And we scientists don't know how to do that."³⁴.

Brian C. Muraresku

quotefancy



INNER DEVELOPMENT GOALS

Transformational Skills for Sustainable Development

1 Being
Relationship to Self

2 Thinking
Cognitive Skills

3 Relating
Caring for Others
and the World

4 Collaborating
Social Skills

5 Acting
Driving Change



BEING

Relationship
to Self

Inner Compass

Integrity and
Authenticity

Openness and
Leading Mindset

Presence



THINKING

Cognitive Skills

Critical Thinking

Complexity
Awareness

Perspective Skills

Long-term
Orientation and
Visioning



RELATING

Caring for Others
and the World

Appreciation

Connectedness

Humility

Empathy and
Compassion



COLLABORATING

Social Skills

Communication
Skills

Co-creation Skills

Inclusive Mindset
And Intercultural
Competence

Trust

Mobilisation Skills



ACTING

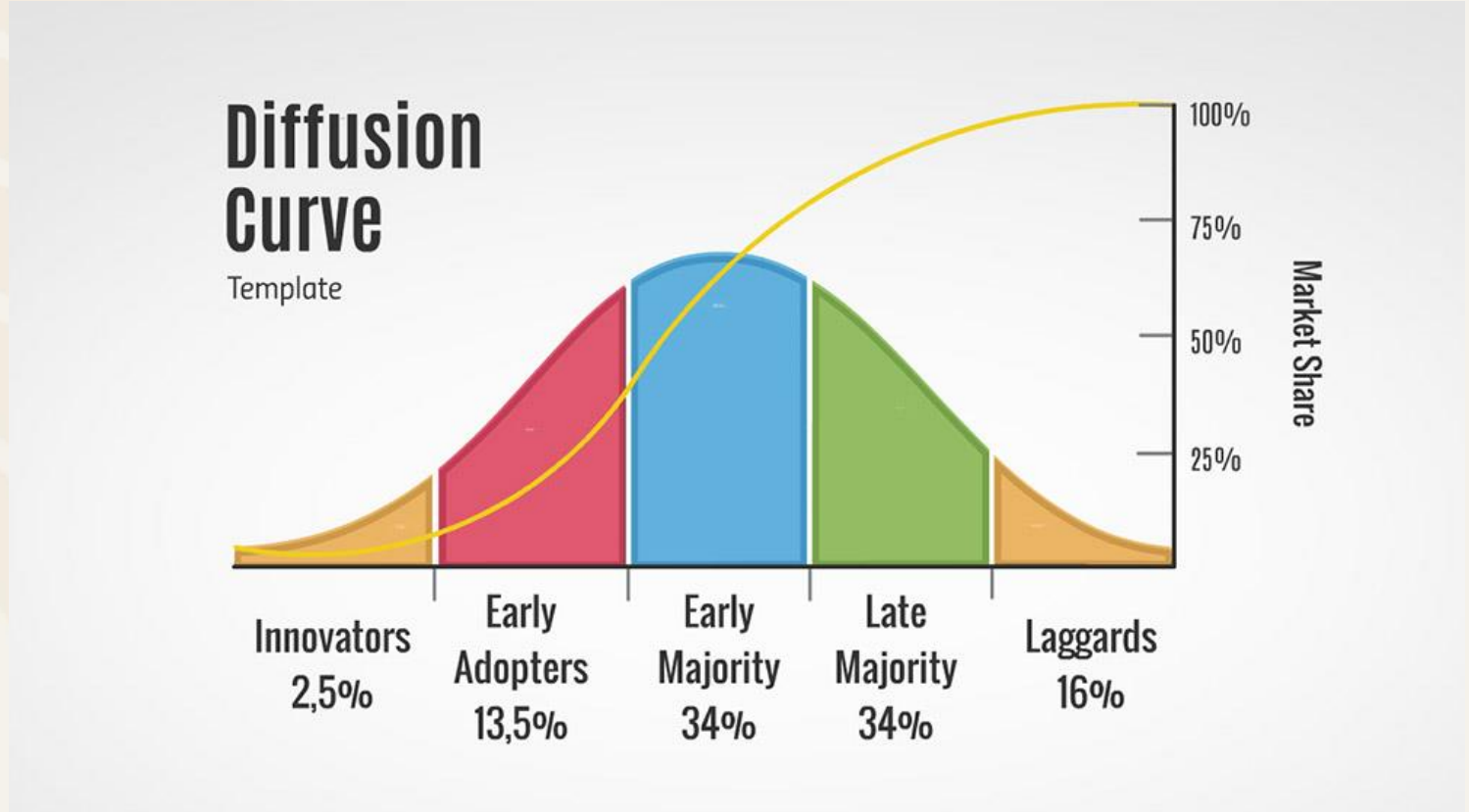
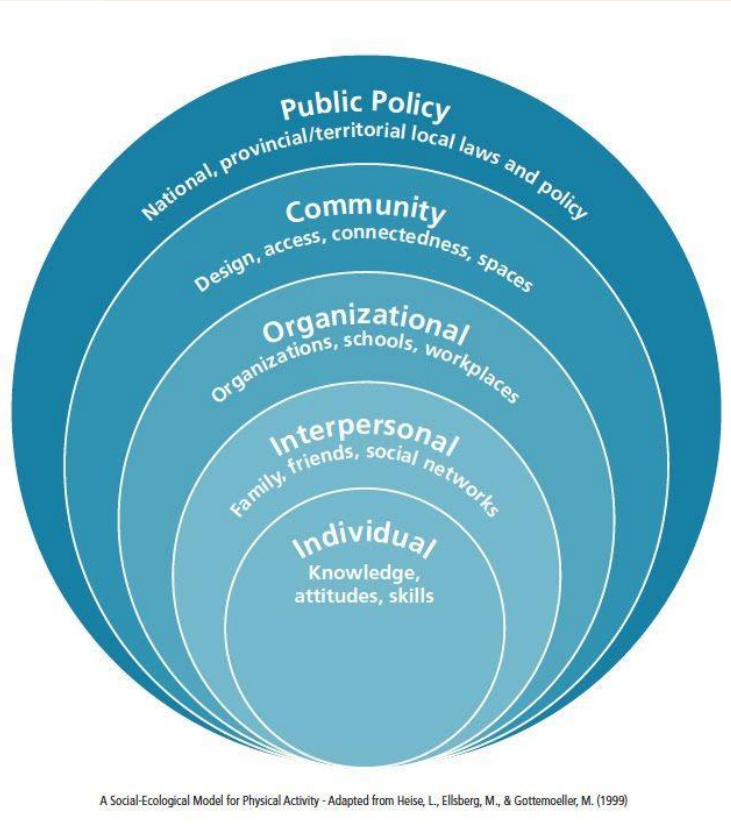
Driving Change

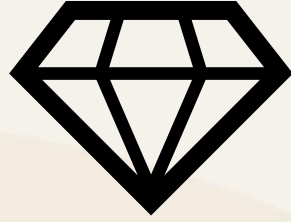
Courage

Creativity

Optimism

Perseverance





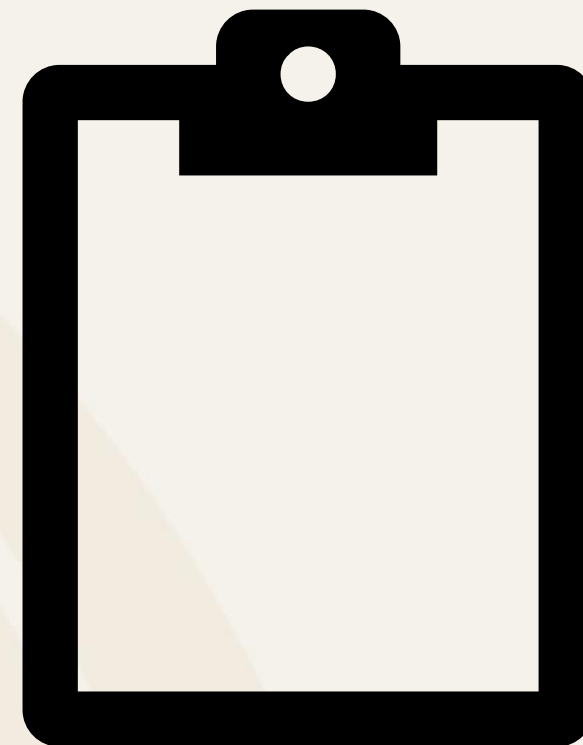


Recap!

- **Planetary Boundaries**
- **Climate 101**
- **Energy and why it matters (a lot)**
- **The UN's Sustainable Development Goals (SDGs)**
- **Systems Thinking**
- **Carbon footprints**
- **Who is responsible and what's fair?**
- **Inner Development Goals**



Quick survey!



Next time!

The Energy System

Your Project

First round of Residential reminders





We're a charity supporting people and organisations across the UK to tackle the climate emergency and end the suffering caused by cold homes.

[cse.org.uk](https://www.cse.org.uk)



Webinar 1 - Reading/watch list

- Energy
 - DW Planet A YouTube series
 - This episode is a good starting point
 - Economist PDF articles
- Planetary Boundaries
 - TED Talk
 - Can we all live a good life on a safe planet?
- Inner Development Goals
 - IDG Youtube channel
- Systems and creating change
 - Simon Sinek's video on focusing on the right people for cultural transformation
 - Systems change and ecological anxiety