



What is a 'carbon footprint' and why should I care?

Planetary Health

People, Places, Planet

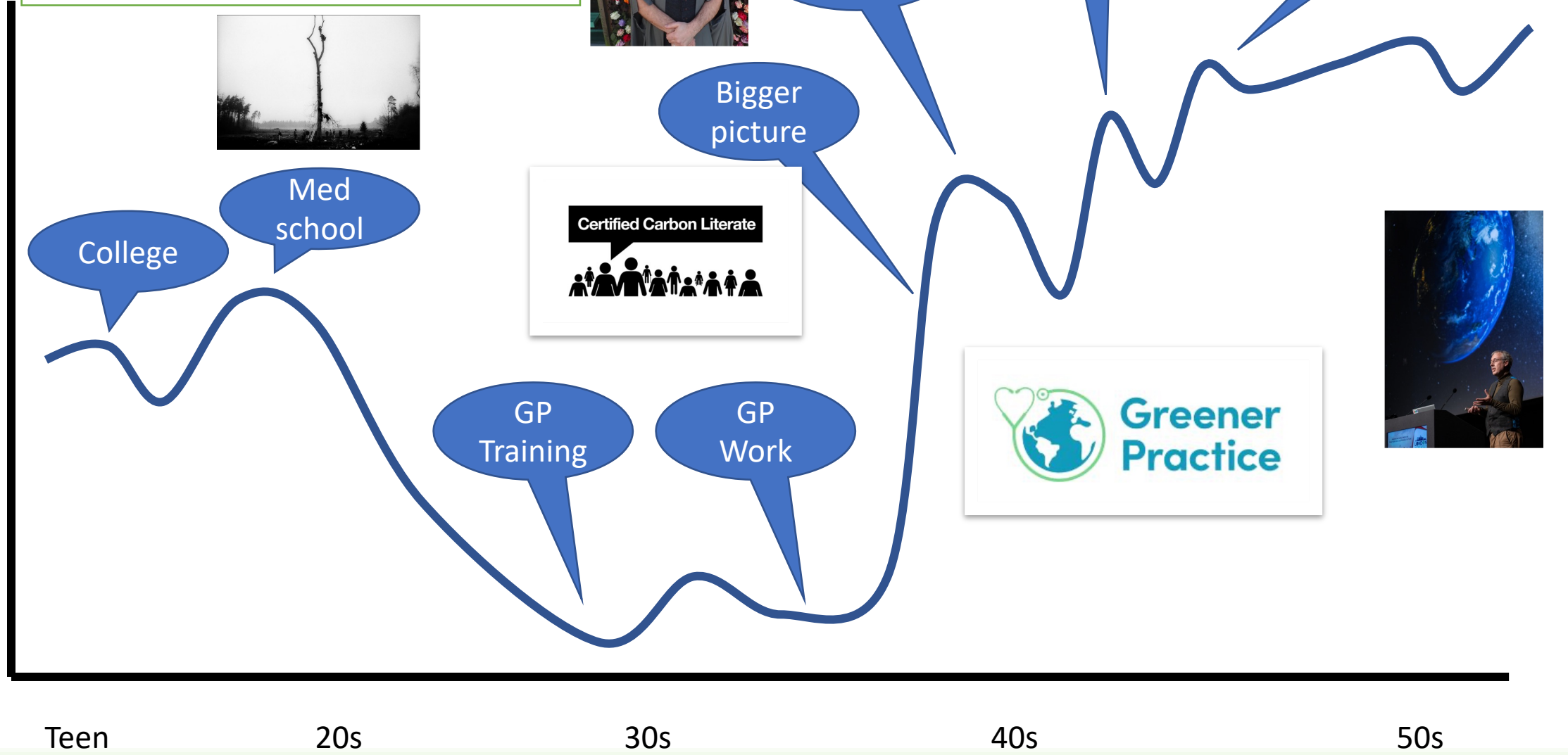
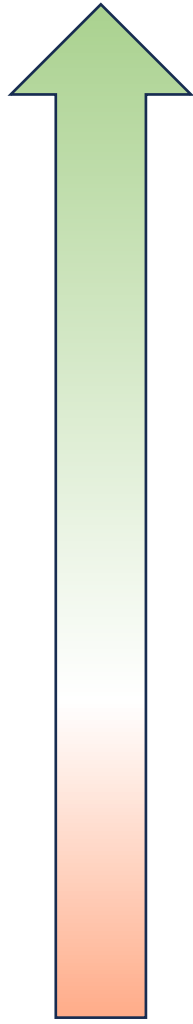
Dr Matt Sawyer

22nd Sept 2023





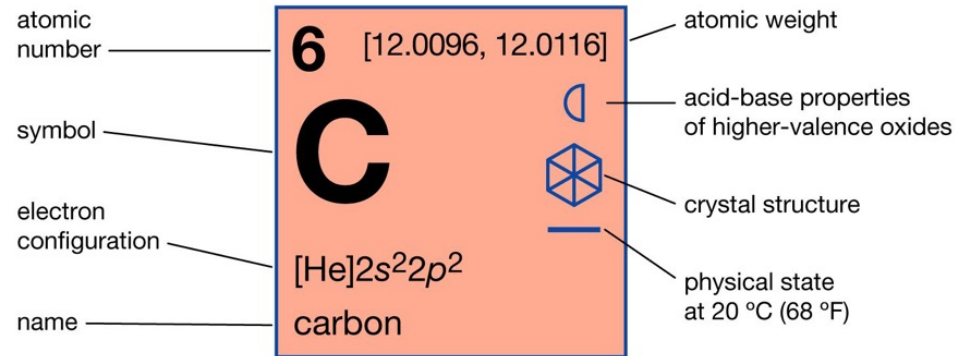
My environmental motivation curve





What is a carbon footprint?

Carbon



Other nonmetals	Solid
Hexagonal	Weakly acidic

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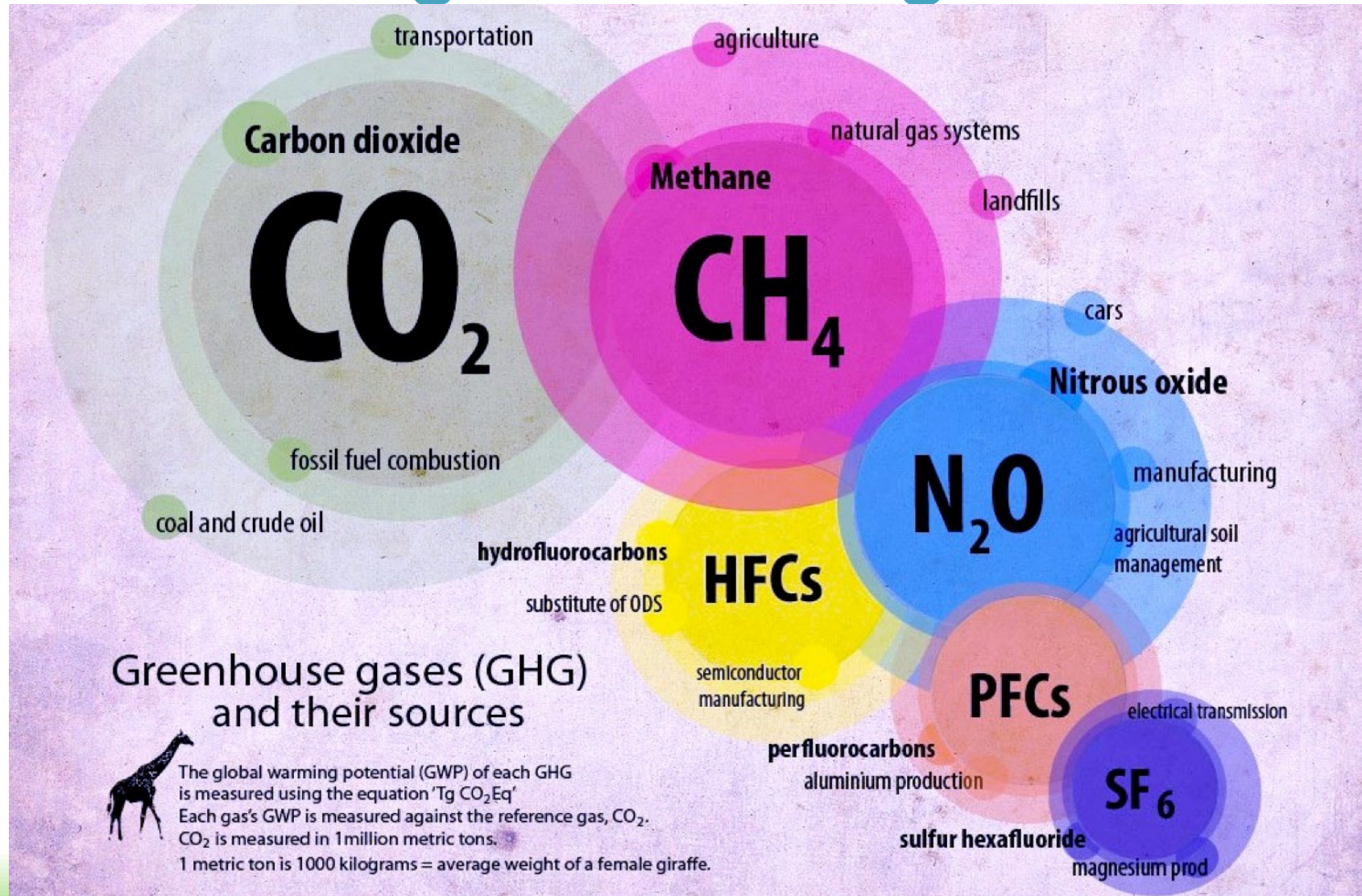
What is a carbon footprint?

“A carbon footprint is the **total greenhouse gas emissions** caused by an individual, event, organization, service, place or product, expressed as **carbon dioxide equivalent**.”





What is a greenhouse gas?



Carbon Dioxide equivalent (CO₂e)

CO₂ = 1

CH₄ = 28

N₂O = 273

F gases = 1,000s-10,000s



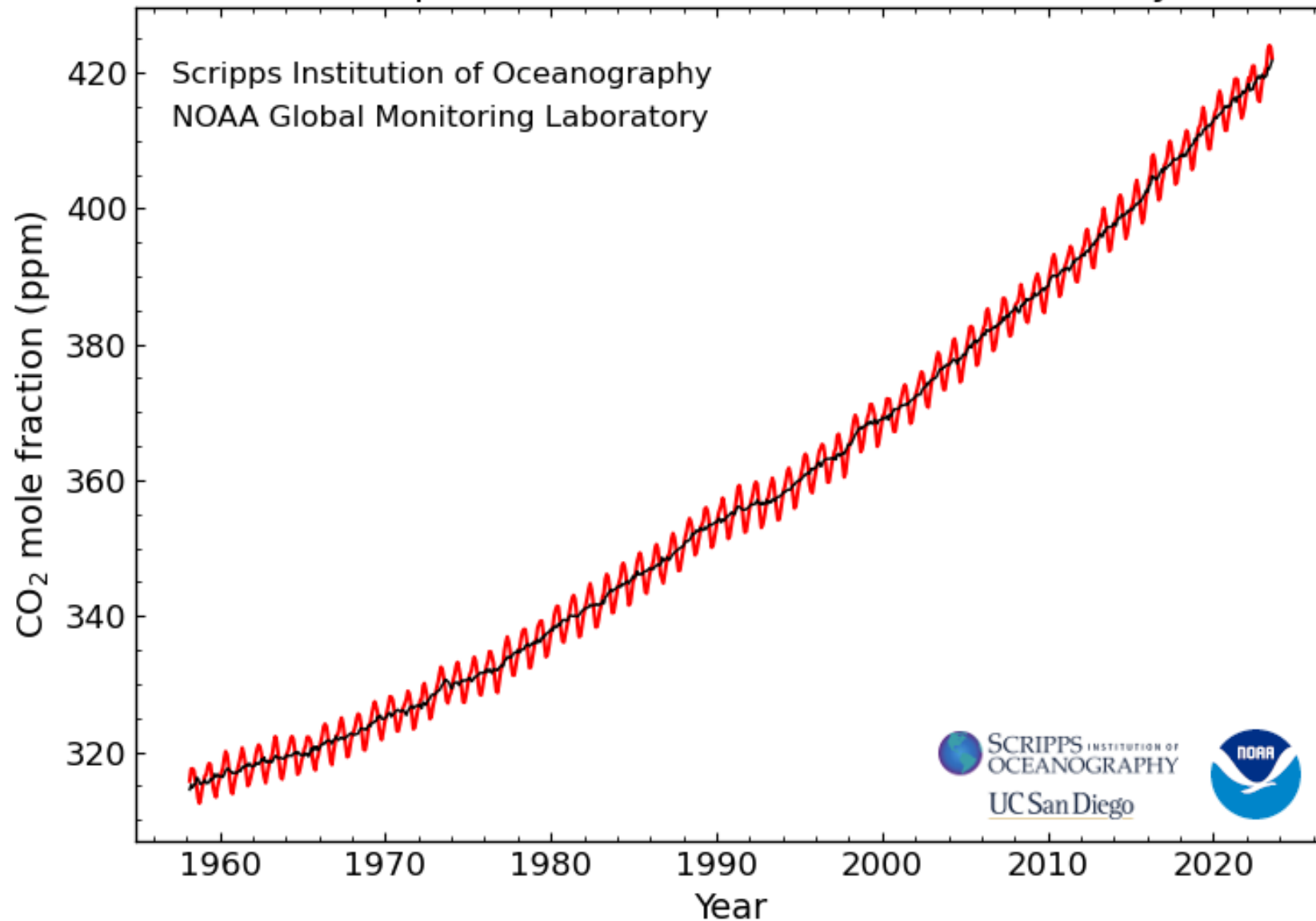
Why should

A. Current Status and T

Observed Warming and

A.1 Human activities, principally caused global warming with in 2011-2020. Global greenhouse historical and ongoing contri land-use change, lifestyles a between and within countri Figure 2.2}

Atmospheric CO₂ at Mauna Loa Observatory





Saddleworth Moor fire June 2018



South Yorkshire flood 2019



waves 2022

2050
(hypothetical)

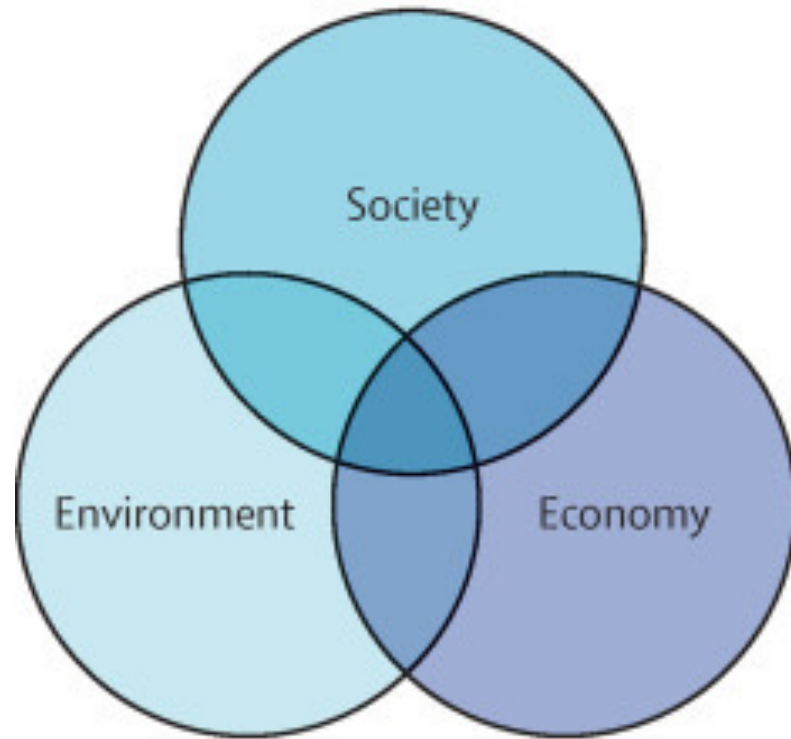
2022
(actual forecast)



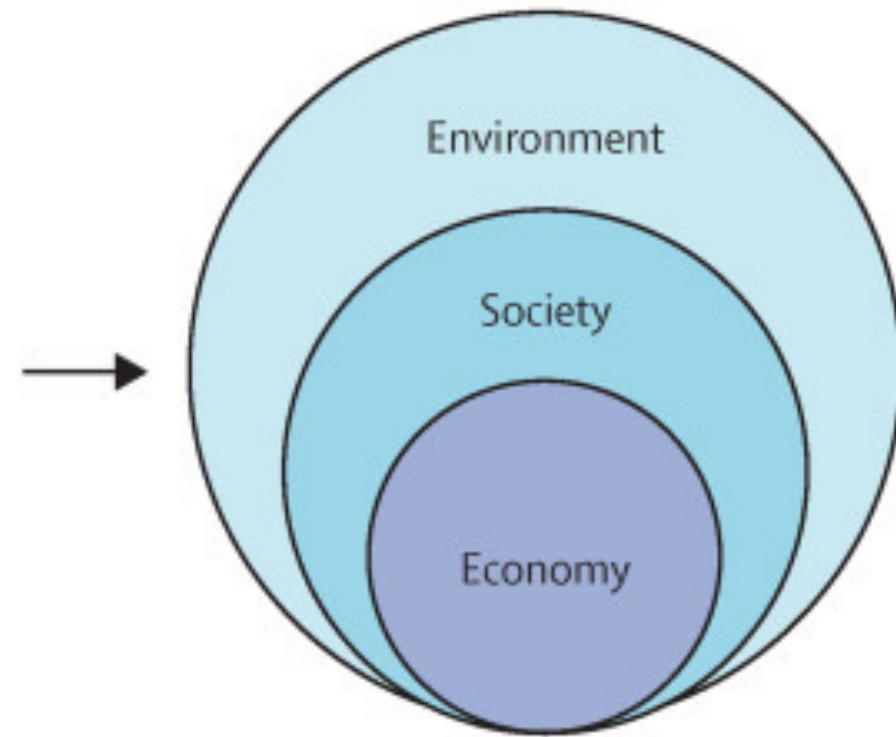
Droughts 2022



Intersecting model of sustainable development



Nested model of sustainable development



Causes of Climate Change

Carbon emissions including (but not exclusively) from the following sectors:

Food and agriculture

Energy

Motorized transport

Climate impacts

Wildfires

Increased Rainfall

Storms

Drought

Sea Level Rise

Heatwaves

Extreme events in general

Health impacts

Respiratory conditions

Vector-borne disease

Injuries and disability

Water-borne diseases (e.g. cholera)

Crop failure, food insecurity and undernutrition

Chronic kidney disease

Cardiovascular diseases

Forced migration

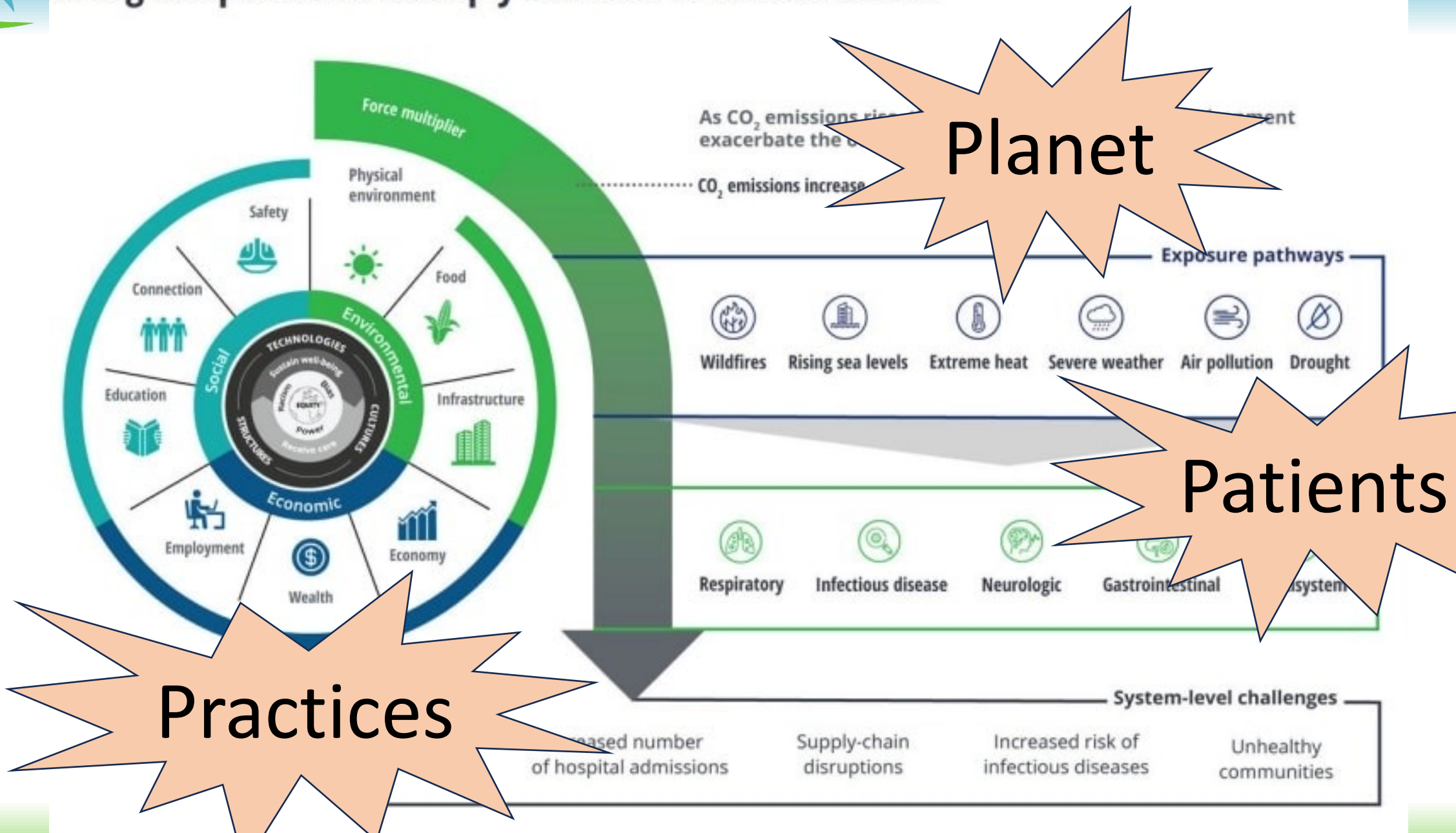
Mental health impacts

Disruption of essential medicines supply, including for HIV and TB





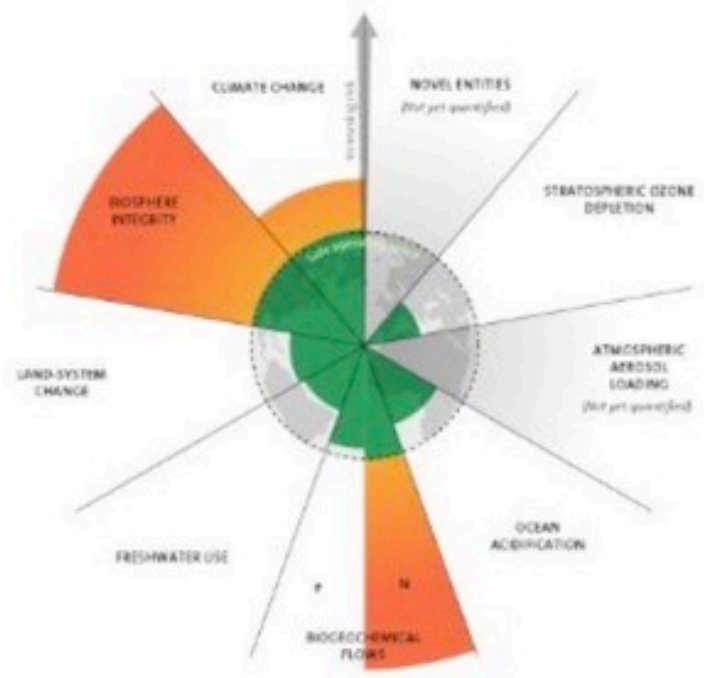
Rising temperatures multiply the risks to human health



Source: Deloitte analysis.



2009



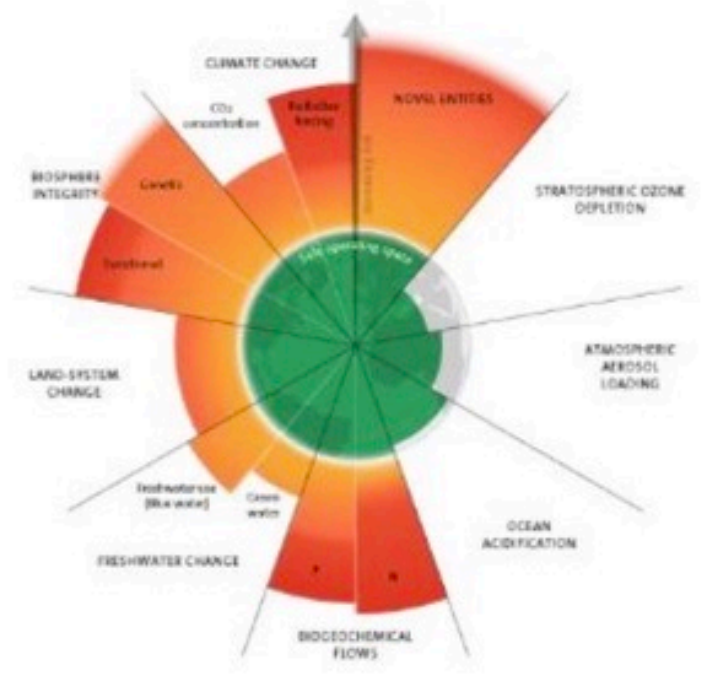
3 boundaries crossed

2015



4 boundaries crossed

2023



6 boundaries crossed


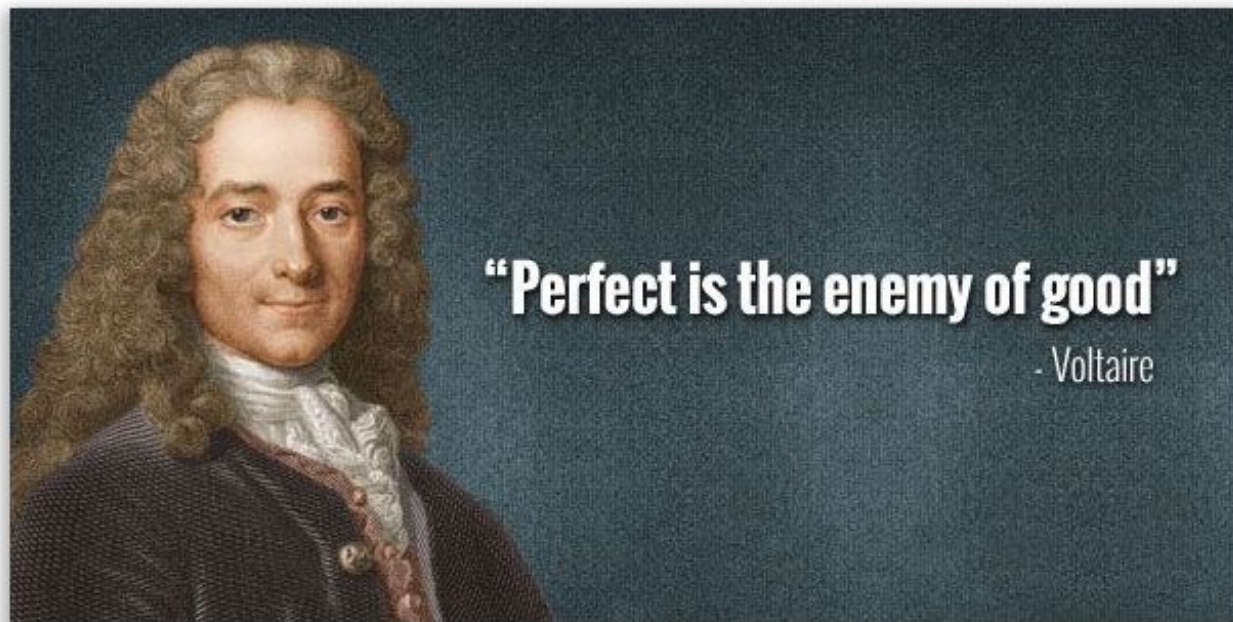
FLAWS



1. It's real
2. It's us
3. Experts agree
4. It's bad
5. There's hope



What can I do?



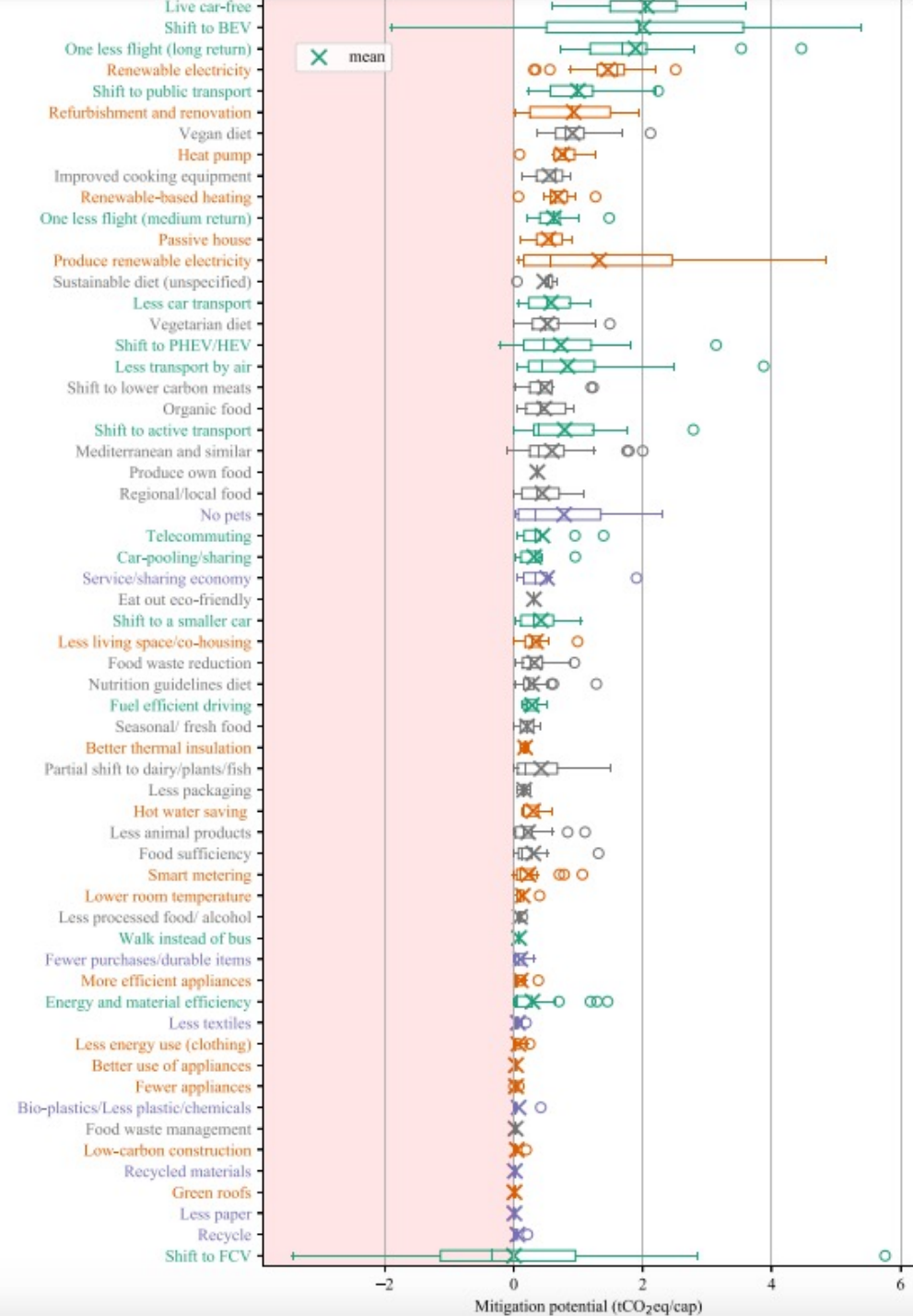
And now that you
don't have to be
perfect,
you can be good.

-John Steinbeck



Take action and don't stop

- Live car free
- Shift to BEV
- One less flight
- Use renewable electricity
- Shift to public transport
- Vegan diet
- Vegetarian diet
- Less car transport
- Shift to active transport
- Organic food





Would you like to know more?

What is Carbon Literacy?

‘An awareness of the carbon costs and impacts of everyday activities and the ability and motivation to reduce emissions, on an individual, community and organisational basis.’

NHS

Carbon Literacy Project

Carbon Literacy for Healthcare Services

Elearning pathway
Public Sector Toolkit
Course Code: CC000489

NHS Health Education England | e-LH in Learning for Healthcare | GMCA GREATER MANCHESTER COMBINED AUTHORITY | Department for Business, Energy & Industrial Strategy



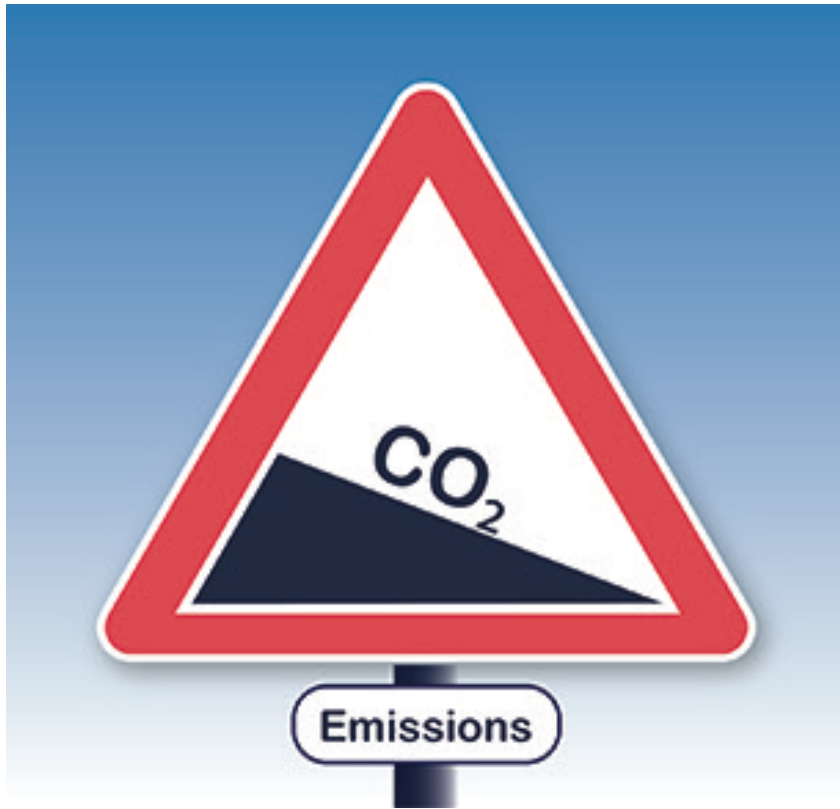
should be
environmentally
sustainable

ALL

Careers in ~~sustainable~~ healthcare



Over this year



- Become Carbon Literate or similar
- Talk about climate change
- Know your number – measure your emissions footprint
- Make a pledge
- Lead by example
- Start and coordinate a green team, a green community or a green network



Over the next year

- Reduce energy use as far as possible
- Prepare buildings for fossil fuel free heating
- Prepare services so staff and patients can travel without a car
- Reduce all waste to zero through smart purchasing, use and reuse
- Involve everyone – staff and patients. Collaborate and cooperate.

**"IF IT CAN'T BE
REDUCED, REUSED,
REPAIRED, REBUILT,
REFURBISHED,
REFINISHED, RESOLD,
RECYCLED, OR
COMPOSTED, THEN IT
SHOULD BE
RESTRICTED, DESIGNED
OR REMOVED FROM
PRODUCTION."**

- PETE SEEGER

COMMENT #YES IF YOU AGREE

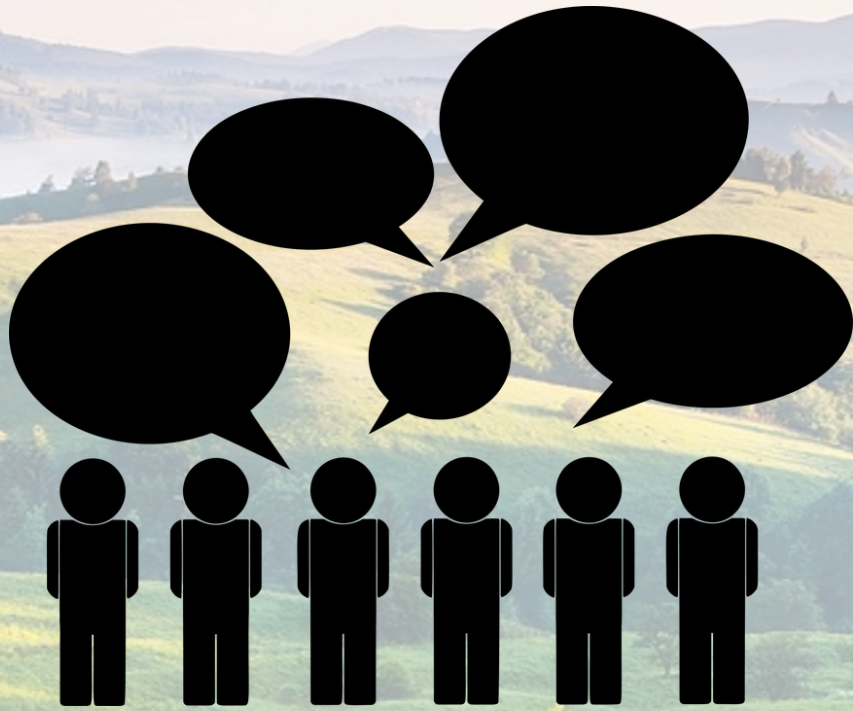
BRIGHTVIBES

#YES



Top 3 changes as an individual and a profession

Make a public pledge – and tell others



Talk about climate change



Find and join your tribe





Thank you for listening