



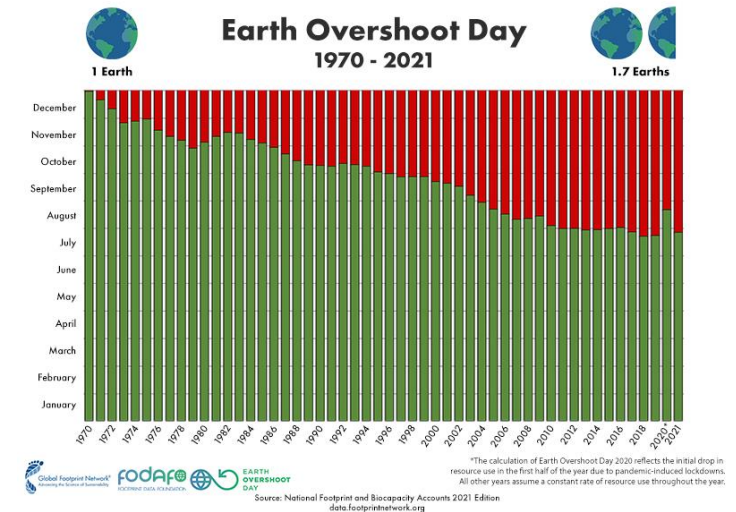
Being greener: how can we achieve it in living donation?

UK LKD Network Meeting  
27<sup>th</sup> April 2022

**19<sup>th</sup> May 2022**

# Country Overshoot Days 2022

When would Earth Overshoot Day land if the world's population lived like...

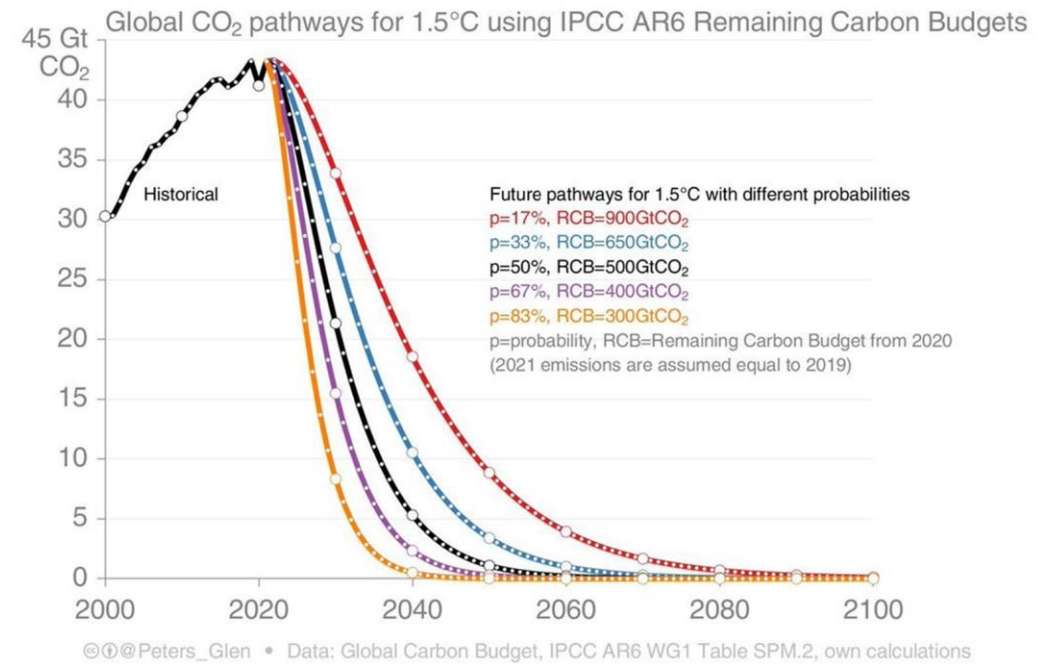
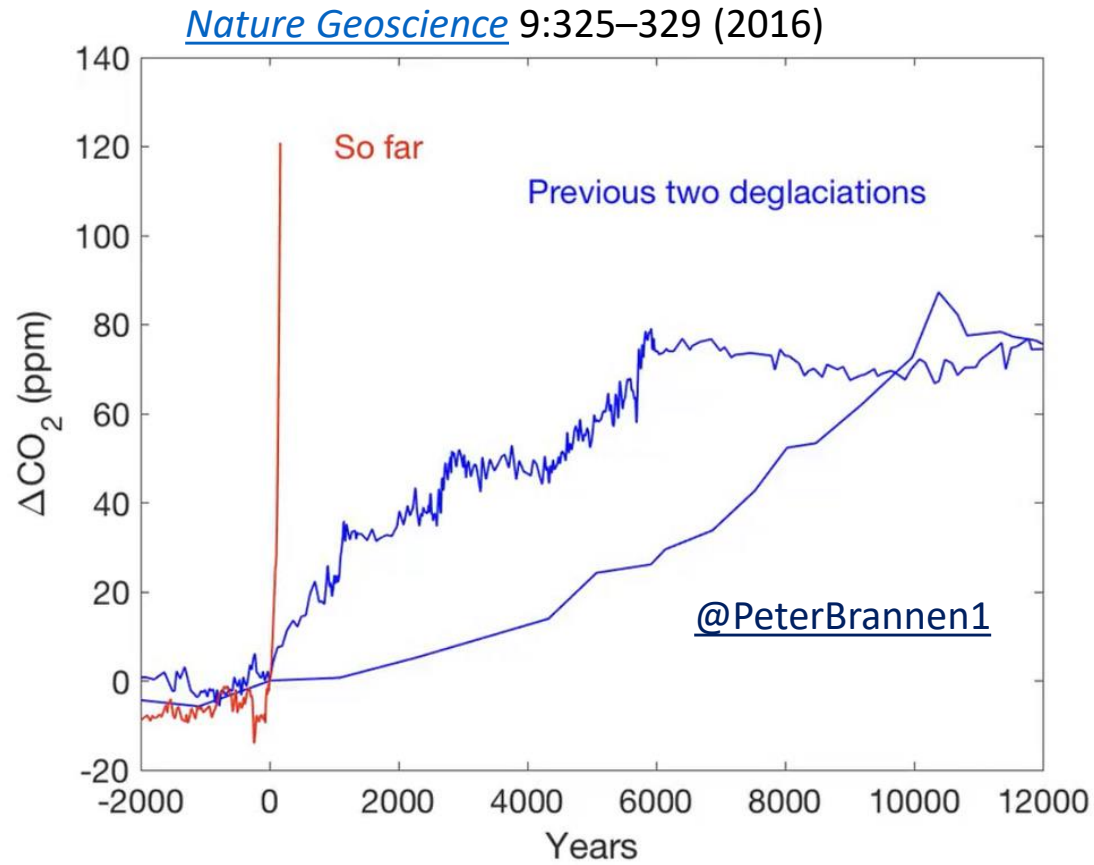


For a full list of countries, visit [overshootday.org/country-overshoot-days](https://www.overshootday.org/country-overshoot-days)  
Source: National Footprint and Biocapacity Accounts, 2022 Edition  
[data.footprintnetwork.org](https://data.footprintnetwork.org)



<https://www.overshootday.org/>

2025  
2030





1.5°C

2°C

IMPACT of 2°C  
compared to 1.5°C



LOSS OF  
PLANT SPECIES

8%

of plants will lose  
1/2 their habitable  
area

16%

of plants will lose  
1/2 their habitable  
area



2x  
worse



LOSS OF  
INSECT SPECIES

6%

of insects will lose  
1/2 their habitable  
area

18%

of insects will lose  
1/2 their habitable  
area



3x  
worse



FURTHER DECLINE  
IN CORAL REEFS

70%  
to 90%

99%



up to  
29%  
worse



EXTREME HEAT

14%

of the global  
population exposed  
to severe heat every  
1 in 5 years

37%

of the global  
population exposed  
to severe heat every  
1 in 5 years



2.6x  
worse



SEA-ICE-FREE  
SUMMERS IN THE  
ARCTIC

At least once  
every 100  
years

At least once  
every 10  
years



10x  
worse

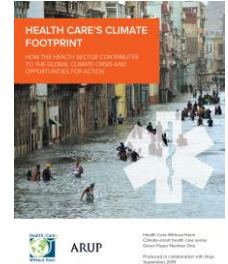


CLIMATECOUNCIL.ORG.AU

| crowd-funded science information

## Health care's global climate footprint (<https://noharm-europe.org>)

- 4.4% of global net emissions (2 Gt CO<sub>2</sub>e)
- If the health sector were a country, it would be the ***fifth-largest emitter on the planet***



## Top health care emitters

- US, China, EU (56%) - per capita emissions vary widely but spend +/- correlates to emissions

## Sources

- Scope 1 17%
- Scope 2 12%
- Scope 3 71%
- 25% of all emissions, generated internationally

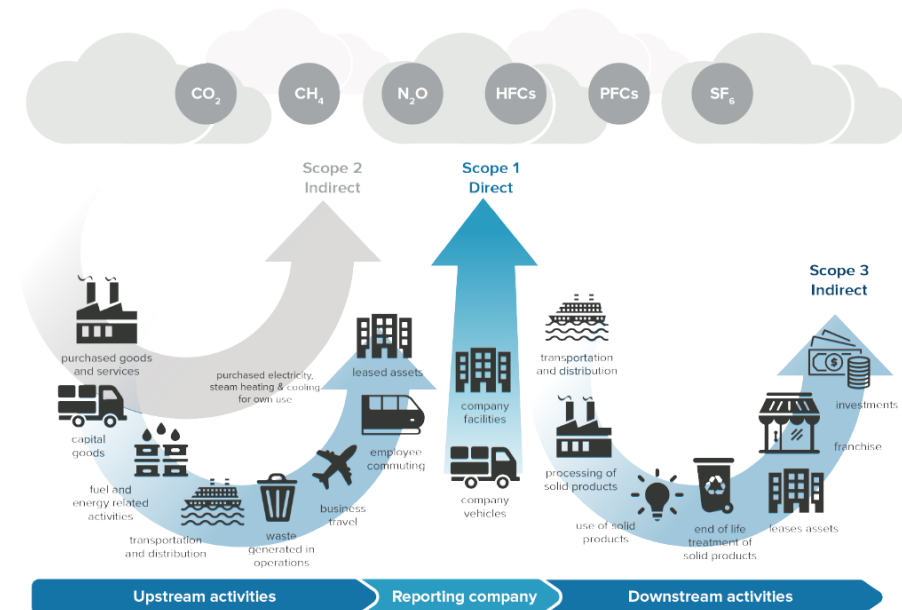


Figure 3: Greenhouse Gas Protocol Scopes 1, 2, and 3. (Source: Greenhouse Gas Protocol)

# Greener NHS



Delivering a 'Net Zero'  
National Health Service

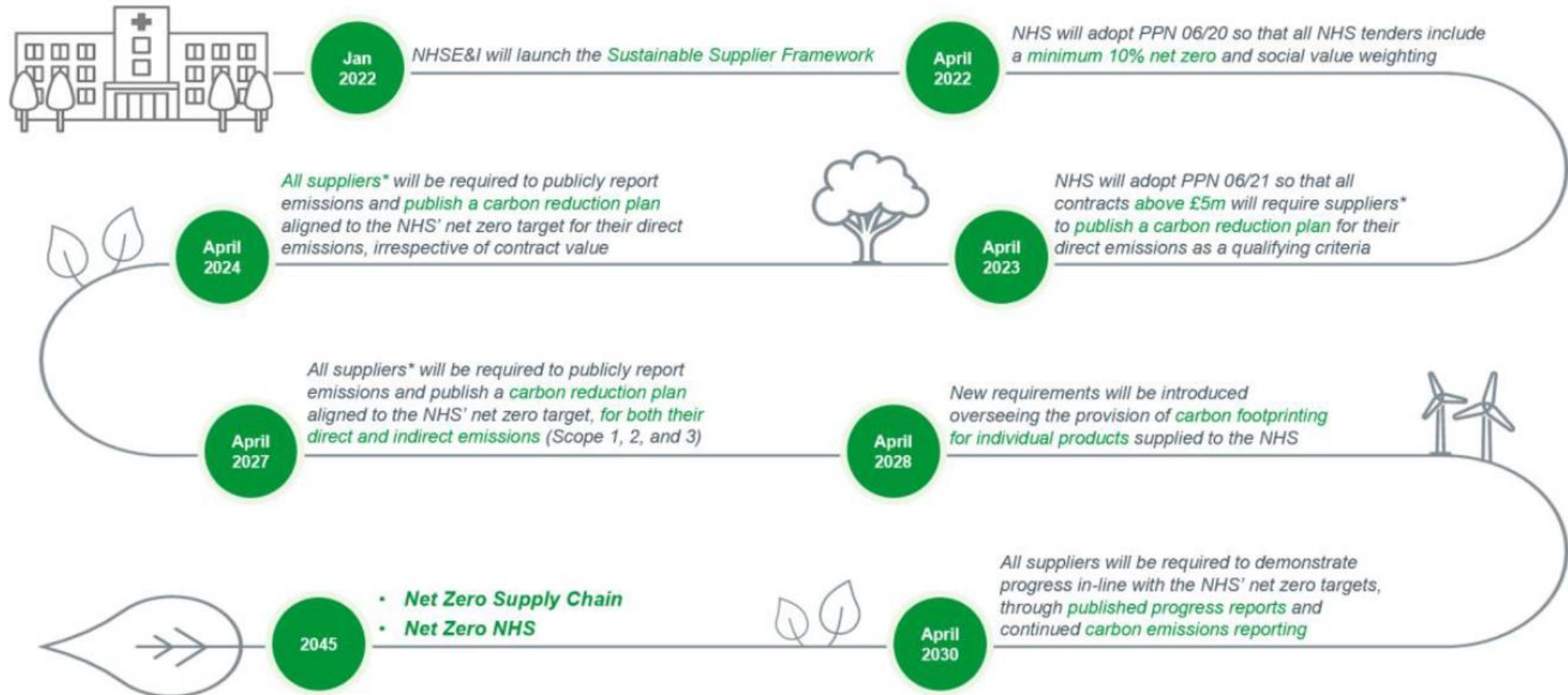


## NHS net zero targets:

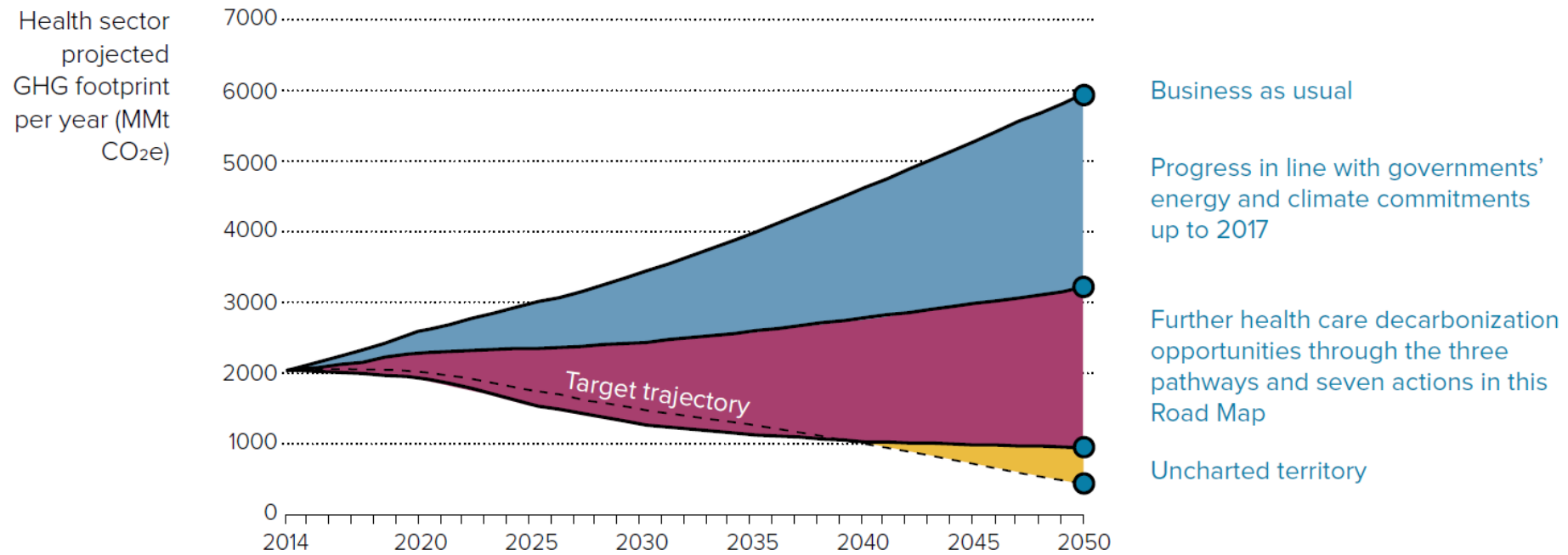
NHS Carbon footprint: under NHS direct control, **net zero by 2040**; ambition for **80% reduction by 2028-2032**

NHS Carbon footprint **plus**: including wider supply chain, **net zero by 2045**; ambition for **80% reduction by 2036-2039**

# Building net zero into NHS procurement



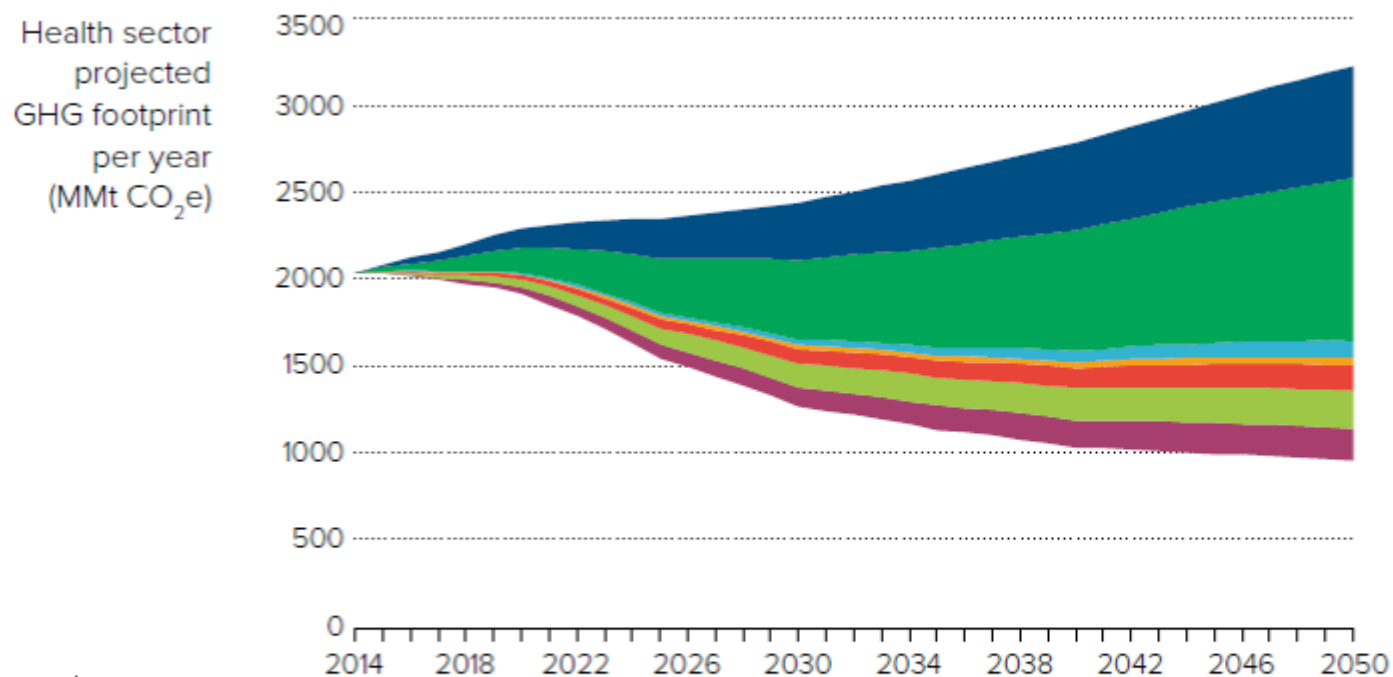
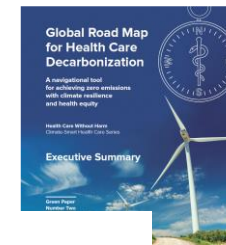
*\*To account for the specific barriers that Small & Medium Enterprises and Voluntary, Community & Social Enterprises encounter, a two-year grace period on the requirements leading up to the 2030 deadline, by which point we expect all suppliers to have matched or exceeded our ambition for net zero.*



**Figure i.** Health Care Without Harm and Arup Global Road Map for health care decarbonization.

Three pathways cut across 7 actions:

1. Decarbonise ourselves
2. Decarbonise our supply chains
3. Advocacy and influence for wider decarbonization



1. Power health care with 100% clean, renewable, electricity
2. Invest in zero emissions buildings and infrastructure
3. Transition to zero emissions, sustainable, travel and transport
4. Provide healthy, sustainably grown, food and support climate-resilient agriculture
5. Incentivize and produce low carbon pharmaceuticals
6. Implement circular health care and sustainable health care waste management
7. Establish greater health system effectiveness



# “Reduce carbon – not health”





 <p><b>Patient empowerment and self-care</b></p> <p>Support patients to take a bigger role in managing their own health and healthcare</p>	<p><b>Prevention</b></p> <ul style="list-style-type: none"><li>&gt; Promoting health</li><li>&gt; Preventing disease</li><li>&gt; Reduce the need for healthcare</li></ul> 
 <p><b>Lean service delivery</b></p> <ul style="list-style-type: none"><li>&gt; Services where people need them</li><li>&gt; Streamlining care to minimise low value activity</li></ul>	<p><b>Low carbon alternatives</b></p> <ul style="list-style-type: none"><li>&gt; Preferential use of effective treatment and medical technologies with lower environmental impact</li><li>&gt; Minimising waste of medications, consumables and energy</li></ul> 

Fig 5. The Centre for Sustainable Healthcare ‘Principles of sustainable clinical practice’.<sup>12</sup>

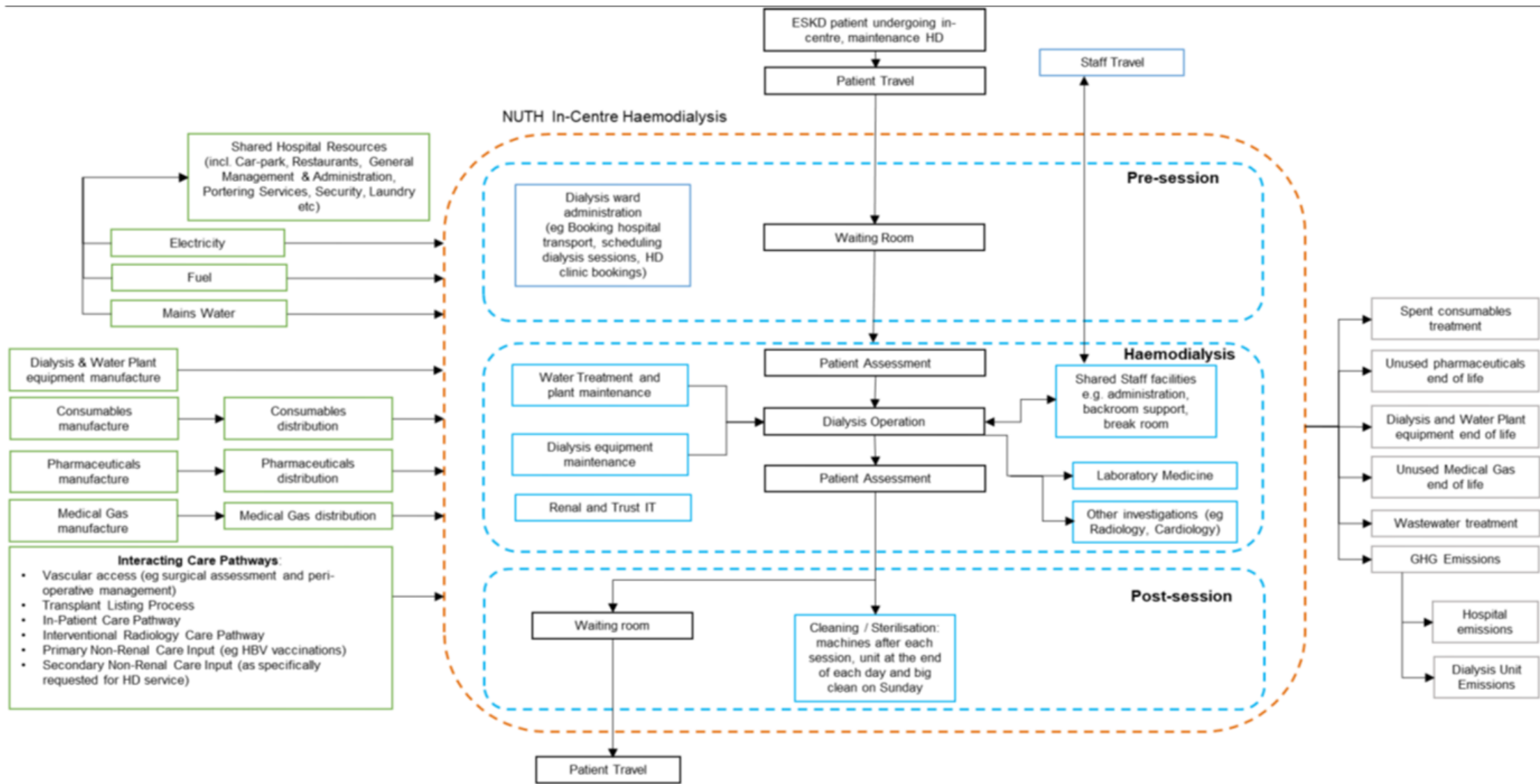
# Task 1

## **Map the LKD care pathway**

- care delivered, inputs, outputs – see example from in-centre HD in slide show

## **Identify the potential carbon and other environmental hotspots (and possible interventions)**

- use the CSH's 4 principles of sustainable clinical practice (see slide show)
- reference:
  - HCWH high impact actions (see slide show)
  - Waste hierarchy (see slide show)
  - Sustainable anaesthetics (link -> <https://sustainablehealthcare.org.uk/what-we-do/sustainable-specialties/anaesthetics> )
  - Sustainable surgery (link -> <https://sustainablehealthcare.org.uk/what-we-do/sustainable-specialties/surgery> )
  - Green surgery challenge 2021 (link through 'Sustainable Surgery')



# Task 2

## Develop a high-level workshop statement

“The greener LKD workshop commits to:

- 1. NHS England carbon net zero targets (or equivalent in devolved nations)**
  2. Develop a network of green champions across the network and in wider kidney transplant care – linked through the Centre for Sustainable Healthcare sustainable specialities network(s)
  3. Identify and intervene upon environmental hotspots within the LKD care pathway
  4. Share and implement learning through the Centre for Sustainable Healthcare sustainable specialities network(s), at Green Nephrology 2023 and at future LKD network meetings
  5. Advocate for green transformation across the wider kidney transplant care network and at higher organisational and systems levels
  6. Exclude Desflurane from LKD procedures
- Etc., etc...”

# Next steps

## 1. Education:

<https://portal.e-lfh.org.uk/> (e-learning)

<https://susqi.org> (methodology)

<https://sustainablehealthcare.org.uk/> ⇒ Courses

## 2. Intervention

## 3. Shared learning

<https://sustainablehealthcare.org.uk/> ⇒ What we do ⇒ Sustainable specialties

Kidney Care

Anaesthetics

Surgery

Green Nephrology 2023