

Sustainability: A guide to NHS Net Zero - ITU



Dr Daniel Lake

Consultant Anaesthetist and Intensivist
Darent Valley Hospital



England

Greener NHS

National ambition

Net Zero

Take action

Sustainability: A Guide to the NHS Net Zero Plan

Dr Daniel Lake

What can you do in ITU

Who am I?



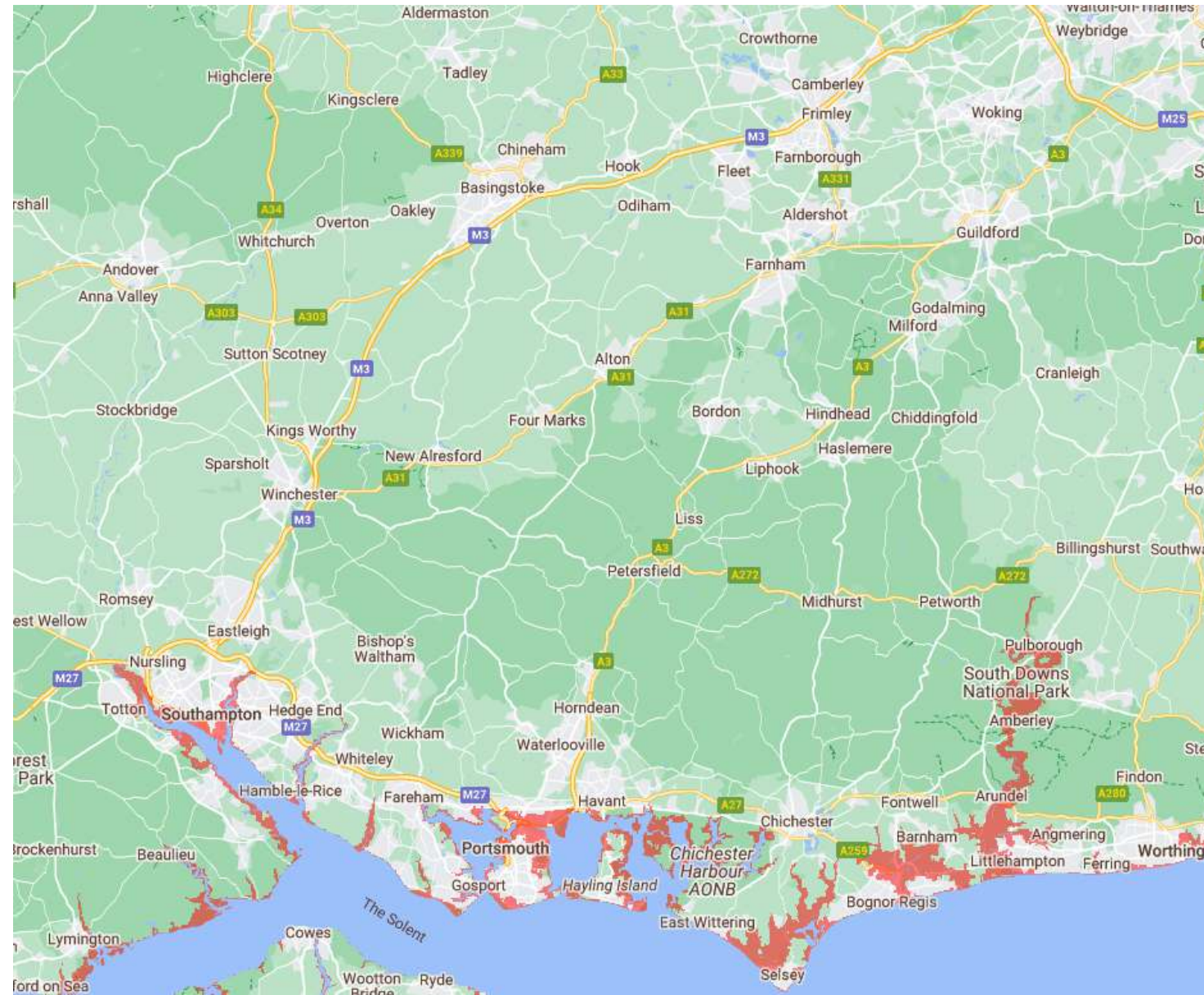
Why?



Why?



Why?



Temperature rises:

- 5-6 degree rise on average temperatures
- Dengue
- Malaria

Why Should you be interested?

‘The climate crisis is a health emergency, it's that simple. More than 13 million deaths around the world each year are due to avoidable environmental causes.’

Nick Watts, NHS Chief Sustainability Officer

April 2022



‘Climate change is a health emergency, as well as an environmental emergency.’

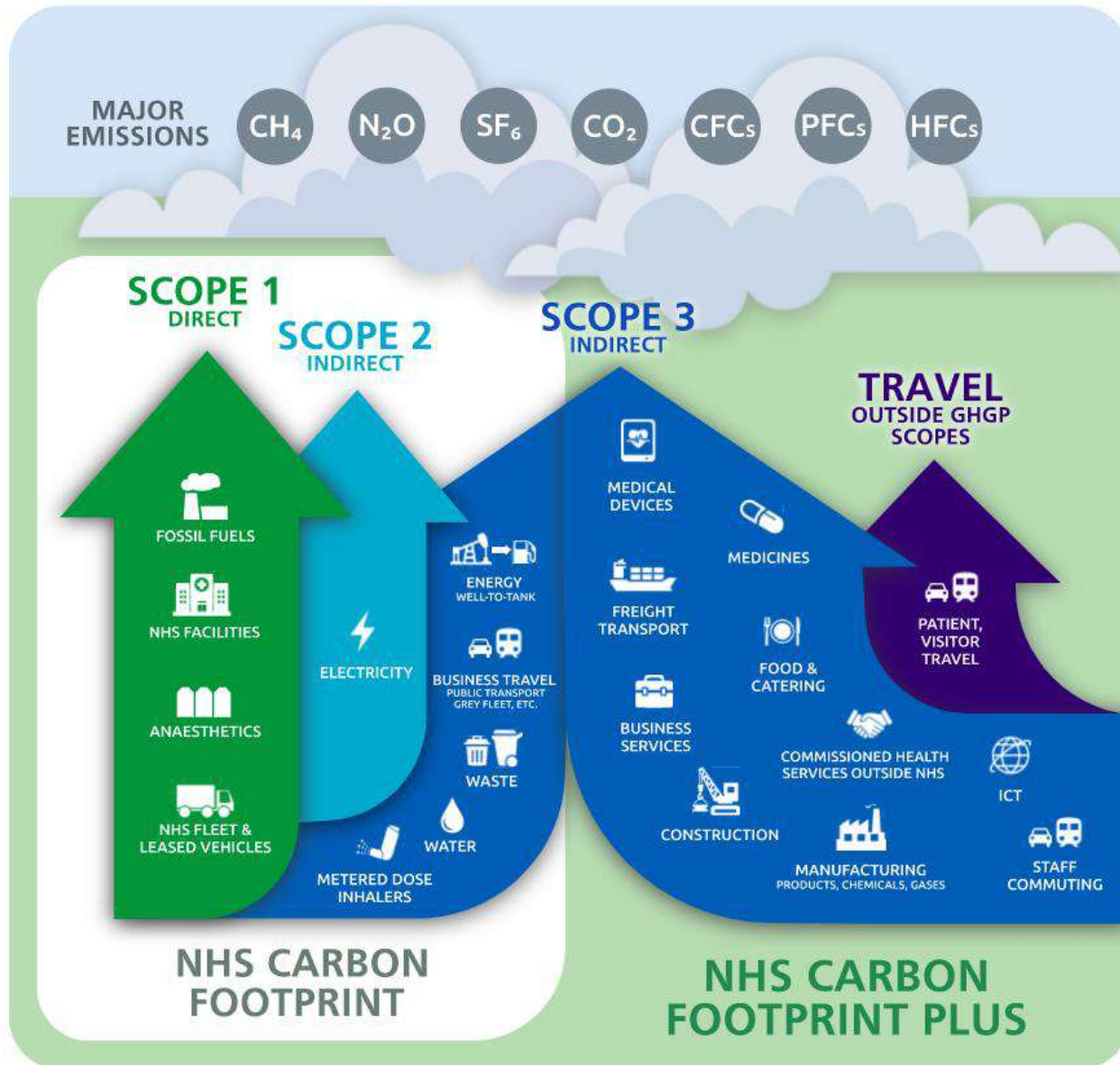
Amanda Pritchard, NHS England Chief Executive

October 2022, during COP26

Why Should you be interested?



NHS Net Zero



- NHS emissions currently is equivalent to 4% of England's total carbon footprint.
- "NHS NET Zero" by 2040 strategy, with an ambition to reach an 80% reduction by 2028 to 2039
- 1.2 Million full time equivalents employed in NHS (2022)

The NHS's Carbon Footprint 'plus' was
estimated at...

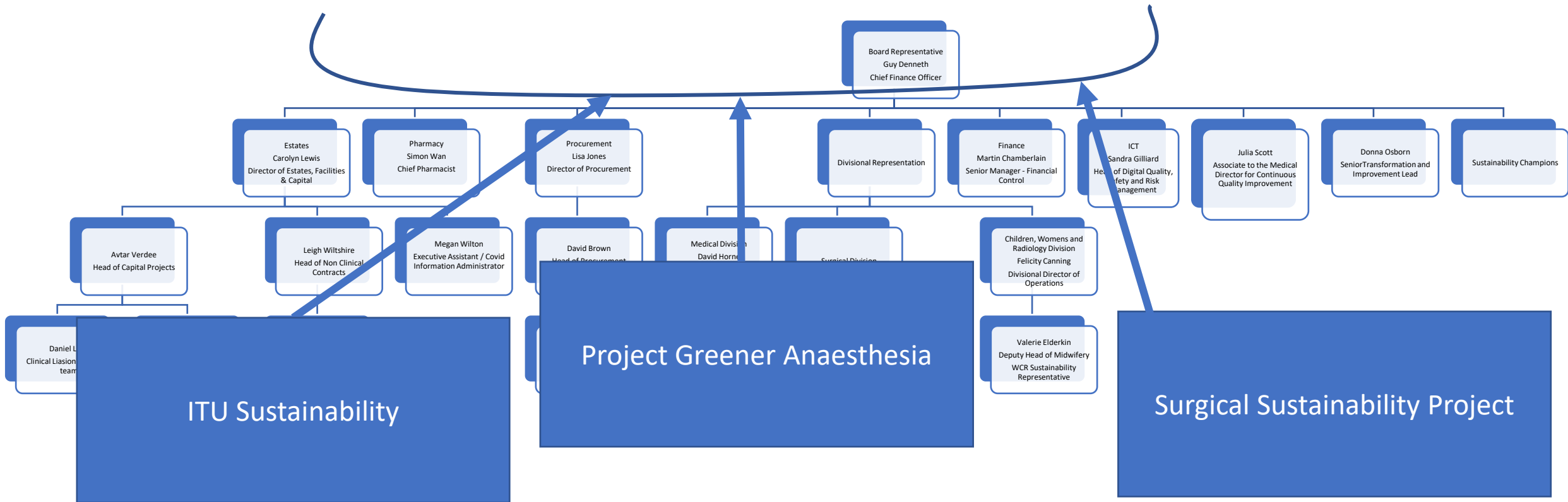
24.9m tonnes

CO2 equivalent

This is roughly equivalent to the annual CO2
emissions of **Jordan**

Our World in Data
2021

Trust Sustainability Steering Group



ITU Sustainability



What are we doing?

- Reduce Waste / Increase Recycling

Simple
Staff buy in / Education
Saves Carbon and Money
Recycled Paper

- Reduce Energy Usage

Easier in New Build
Clinical Liaison to the Estates Team
HVAC reduction
Lighting
Standby

- Reduce Water Pollution

Work with Water Provider
Reassess Sluice Waste
Assess Drug contamination of water supply

- Reduce CFC Pollution

Education around inhaler use / prescription
Replacement of Ethyl Chloride spray with CoolSticks

Waste Stream Review

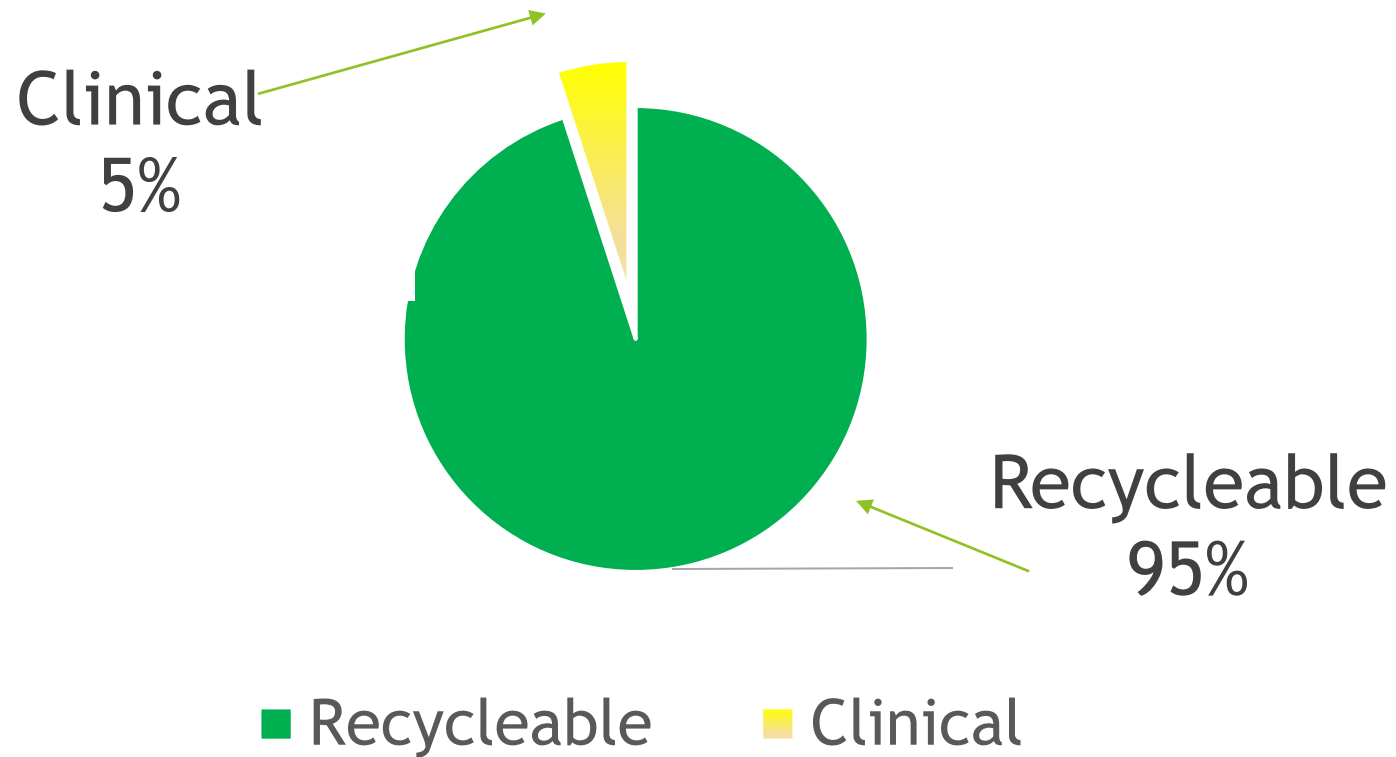
- ▶ The NHS spends over £700m a year on waste disposal
- ▶ Post pandemic the NHS has seen a huge rise in infectious clinical waste bins resulting in missed collections and huge cost
- ▶ Many hazardous waste bins often contain recyclable waste
- ▶ Anaesthetic rooms at DVH currently only contain hazardous waste bins
- ▶ Agreement with local council that recyclable waste could be collected free of charge

2017 NHS Freedom Of Information Report on Waste Removal

- ▶ 227 Freedom of Information requests sent with 69% response rate
- ▶ 2015/16 (Pre Pandemic) 95,734 tonnes of bagged waste produced across participating trusts at a cost of approximately £33 million
- ▶ 59.4% recorded as municipal waste, 32.8% infectious and 7.7% offensive
- ▶ Findings:
 - ▶ 20% of infectious waste reclassified correctly as municipal waste could save the NHS £4.8 million a year
 - ▶ 50% infectious waste reclassified correctly as offensive waste could save the NHS a further £2.9 million a year

Waste Management Project: Results

Figure 2. Anaesthetic Room Waste Content



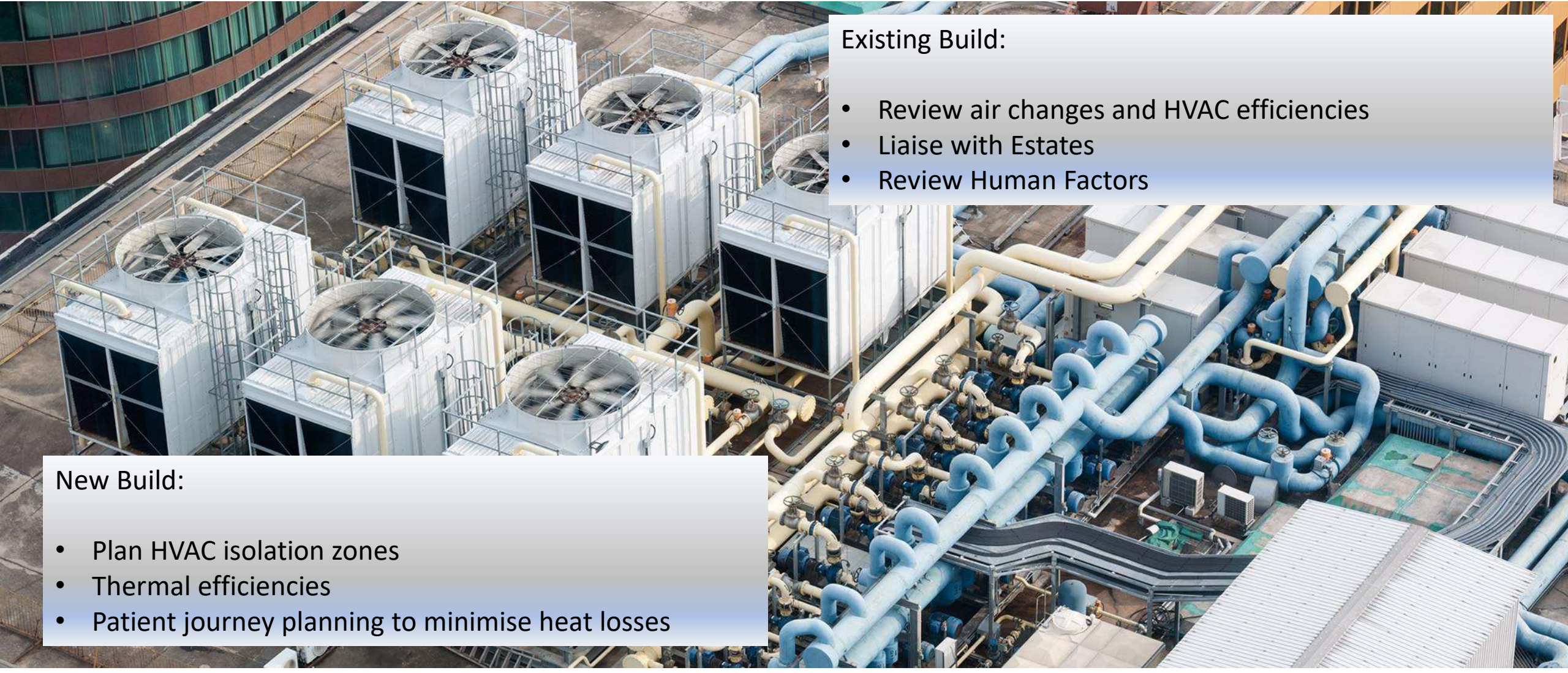


Completing the Cycle

- ▶ Hazardous waste decreased by 110kg / day
- ▶ Recycling increased by 50kg / day

- ▶ Currently £1600 / Month saving
- ▶ Possible = £1800-2000 / Month saving

HVAC



Existing Build:

- Review air changes and HVAC efficiencies
- Liaise with Estates
- Review Human Factors

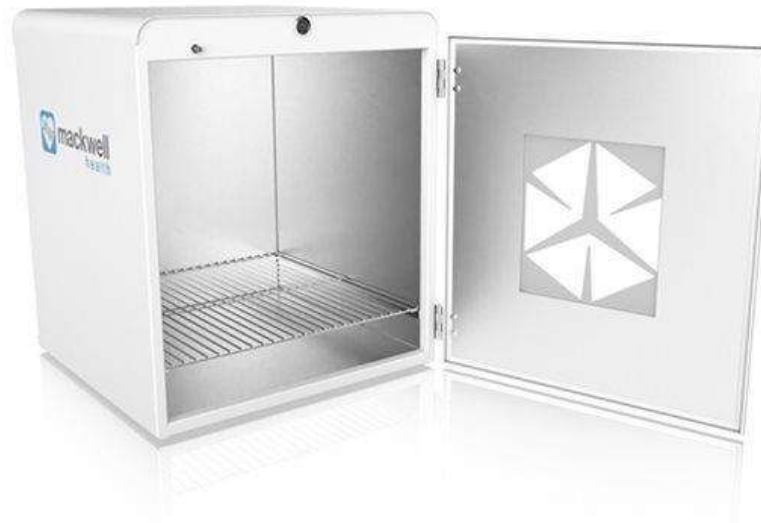
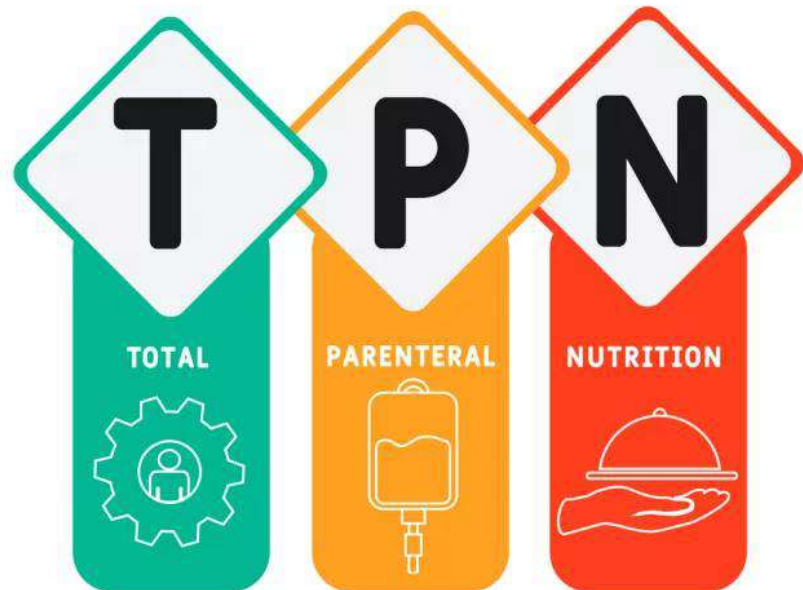
New Build:

- Plan HVAC isolation zones
- Thermal efficiencies
- Patient journey planning to minimise heat losses

CoolSticks



What does the future hold?



What does the future hold?

Regional Network

Individual Speciality Teams



National Network

Junior Doctor Sustainability
Group

Sustainability Champions

Thanks for Listening



Daniel.lake@nhs.net