

The AHSN Network

Developed by
Health Innovation Kent Surrey Sussex and
Health Innovation Oxford and Thames Valley

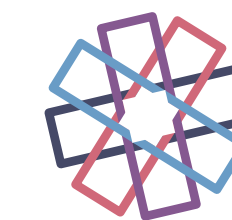


Net Zero

Innovator Guide



Health Innovation
Kent Surrey Sussex



Health
Innovation
Oxford & Thames Valley

Welcome to the Net Zero Innovator Guide

Climate change is one of the most significant global challenges we face. It is a critical issue impacting our patients, staff, suppliers and wider society. Identifying a pathway to net zero emissions for a complex system as large as the NHS is challenging. But sustainable innovation is part of the engine of change with a central role to play in the shift to a lower carbon economy. We are committed to playing a positive and proactive role in that transition.

As leaders, our responsibility is to take action to identify, measure and manage climate related risks and opportunities, collaborate and build a sustainable future for society.

Gary Ford

Professor Gary Ford

CBE, FMedSci
Chief Executive, Health Innovation
Oxford & Thames Valley
Chair, AHSN Network, 2021-23



Net Zero

Homepage

From here you can navigate to all sections of the guide.



Introduction to net zero

What innovators need to know
about climate change and net zero

/// We are the first generation to feel the effect
of climate change and the last generation
who can do something about it ///

Barack Obama, Former US President



Let's talk climate change

Climate change refers to long-term shifts in temperatures and weather patterns. Whilst these shifts may be natural, since the Industrial Revolution human activities have been the main driver of our climate changing. This is primarily due to burning fossil fuels like coal, oil and gas which cause carbon dioxide, amongst other greenhouse gases, to be released into the atmosphere, which trap heat and cause global warming.

Consequently, very little of our planet is unscathed from our actions. From ecological degradation, extreme weather, rising sea levels, food and water scarcity, natural disasters, melting ice, acidification of oceans, deforestation and disruption to food chains, scientists concur that we are now in a climate emergency.

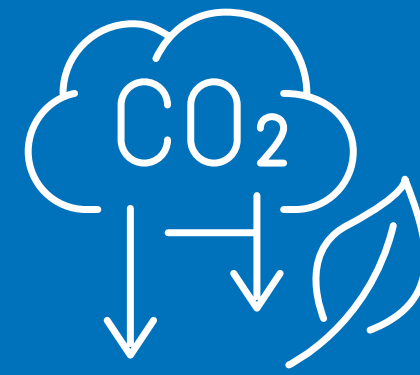
Climate change is not only the defining issue of the decade, but of decades to come

Source: The Intergovernmental Panel on Climate Change Report
<https://www.ipcc.ch/>

What is the solution?

There is no silver bullet to solving the climate crisis, but net zero has been scientifically proven to stabilise the worst effects of global warming.

A quick guide to net zero



Did you know?

The United Kingdom became the first major economy to set net zero commitments. The UK's net zero target is 2050.

What does net zero mean?

Net zero refers to achieving a balance between the amount of greenhouse gases produced and the amount removed from the atmosphere. For businesses, this means cutting greenhouse gases to as close to zero as possible, with remaining emissions being offset, predominantly through natural carbon sinks such as oceans and forests.

Why is net zero important?

Net zero is scientifically and robustly proven to stabilise **global warming**. In order to avert the worst impacts of climate change and preserve our planet, global temperature increase need to be limited to 1.5°C above pre-industrial levels. Currently, the Earth's global temperature has risen by 1.1°C, and emissions continue to rise. To keep global warming to no more than 1.5°C, emissions need to reach net zero by 2050.

How can net zero be achieved?

Transitioning to a net zero world is one of the greatest challenges facing humanity. It calls for a complete transformation of how we live, move and consume. In order to move away from traditional carbon intensive practices and move towards transformative sustainable solutions, we look to innovators to become the catalyst for change.

Source: Institute for Government <https://www.instituteforgovernment.org.uk/explainers/net-zero-target>

Climate change and the NHS

The NHS's approach to climate change and reaching net zero by 2045

Climate change is the biggest global health threat of the 21st century. The impacts will be felt all around the world, and not just in some distant future but in our lifetimes and those of our children

The Lancet, an independent medical journal



Climate change and health

The climate emergency is a health emergency.

Climate change threatens the foundations of good health. The health of the planet is intricately linked to human health and wellbeing. A healthy planet provides us with our most basic needs: fertile land for food production, safe water to drink and clean air to breathe.

However, climate change is degrading our planet's life-support system and consequently threatens our ability to survive and live healthily. Everyone working in health and care must prepare to respond to the health impacts of the climate crisis. Climate change has been identified as the most important health threat of the century, but it is also the greatest opportunity to redefine the social and environmental determinants of health.



Did you know?

4.4% of global emissions are from healthcare.

Source: Making health and health systems net zero
<https://www.bmj.com/content/368/bmj.m970>

Climate change and the NHS

In 2020, NHS England became the world's first health service to commit to net zero. Two targets have been set:

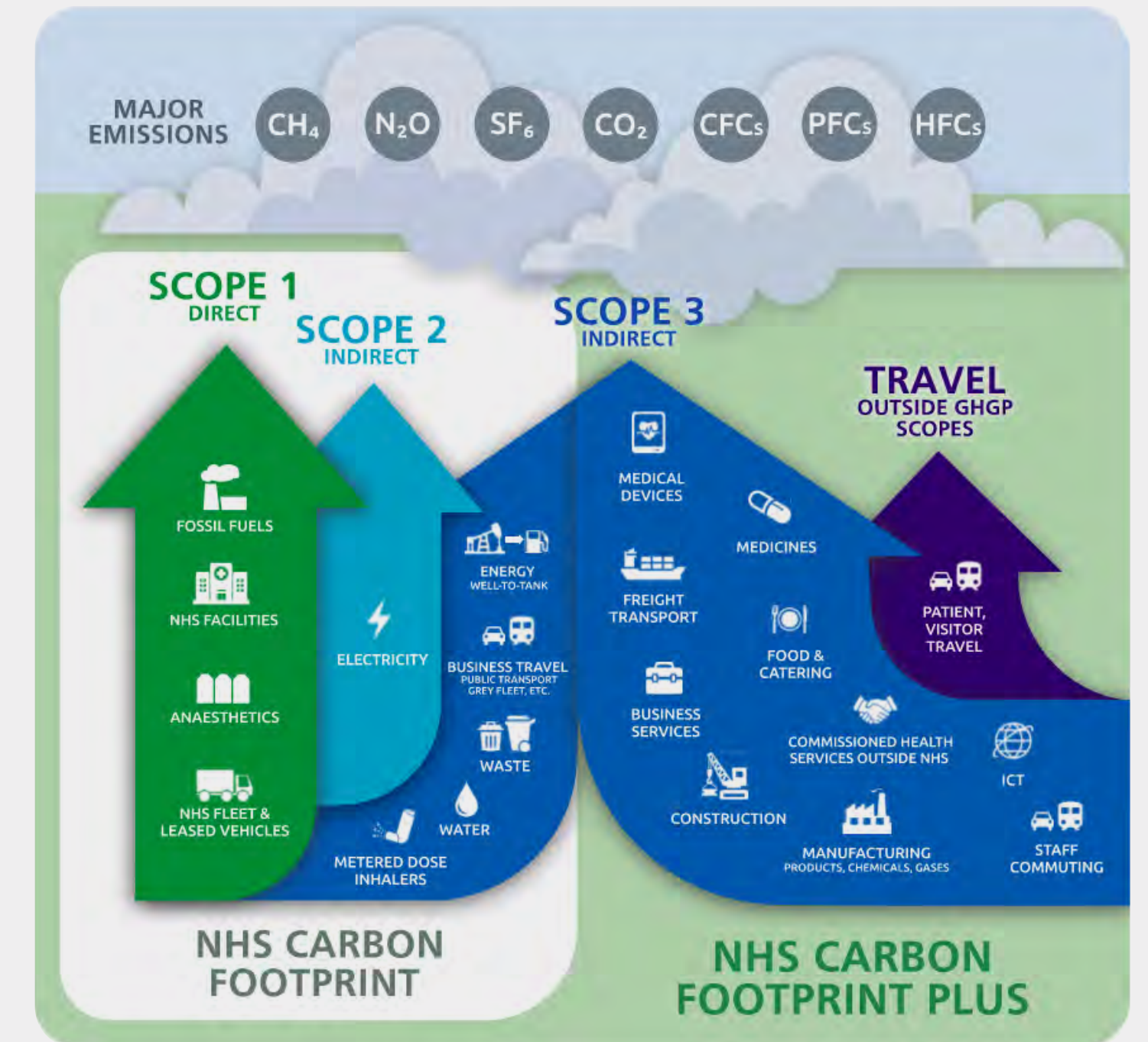
NHS Carbon Footprint

For the emissions the NHS controls directly, the target is net zero by **2040**.

NHS Carbon Footprint Plus

For emissions the NHS influences but does not control, the target is net zero by **2045**.

Over the last 10 years, the NHS has taken notable steps to reduce its impact on climate change. Furthermore, as the biggest employer in this country, there is more that the NHS can do. The NHS must not only cut emissions but build adaptive capacity and resilience into the way care is provided. To help co-ordinate efforts across England, Green Plans have been created by integrated care boards (ICBs) and trusts to develop their approaches to reducing emissions.



Did you know?

The NHS is responsible for **25 million tonnes** of CO₂ per year.

Source: The Lancet Planetary Health
<https://www.thelancet.com>

A greener NHS

To support the co-ordination of carbon reduction efforts across the NHS, the Greener NHS national team have asked all ICBs and trusts to develop a Green Plan. This details their approach to reducing emissions in line with the national targets.

Green Plans provide a structured way for each associated ICB and trust to set out their carbon reduction initiatives and plans for the next 3-years.

This timeframe allows Green Plans to strike an appropriate balance between immediate carbon reductions activities and forward-looking approaches.



Green priority areas in the NHS

There are nine areas of focus within the Green Plans. These align to the **main sources of carbon emissions** and **key drivers of change**.

Supply chain

The NHS supply chain accounts for 62% of total carbon emissions. NHS organisations will aim to use their purchasing power to reduce carbon in their supply chains.

Medicine

Medicine accounts for 25% of supply chain emissions. NHS organisations will aim to reduce emissions related to prescribing, use of medicines and medical products.

Travel

Travel accounts for 17% of total carbon emissions. NHS organisations will aim to reduce emissions through zero or low emission vehicles, maximise efficiencies and increase active travel like walking or cycling.

Estate

Estates account for 15% of the total carbon emissions. NHS organisations will aim to reduce emissions from their buildings, alongside reducing energy usage and decarbonising heating and hot water systems.

Food

Food accounts for 6% of total carbon emissions. NHS organisations will aim to reduce emissions from food made, processed and served, and ensure the provision of healthier, locally sourced and seasonal menus.

Leadership

NHS organisations will aim to develop their workforce in sustainability leadership, including forming sustainability committees, delivering training and investing in staff to support sustainability goals.

Adaption

NHS organisations will aim to mitigate the risks of climate change and severe weather on its business and functions for both patients and staff.

Models of care

NHS organisations will aim to embed net zero principles across all clinical services, default preferences to lower-carbon interventions and reduce unwarranted variations in care.

Digital

NHS organisations will aim to harness existing digital technology to streamline service delivery, expand their use of telemedicine to deliver care remotely and use digital systems to reduce paper, printing and postage.

Net zero in NHS procurement

How NHS procurement changes will impact innovators and an introduction to the Evergreen Sustainable Supplier Assessment

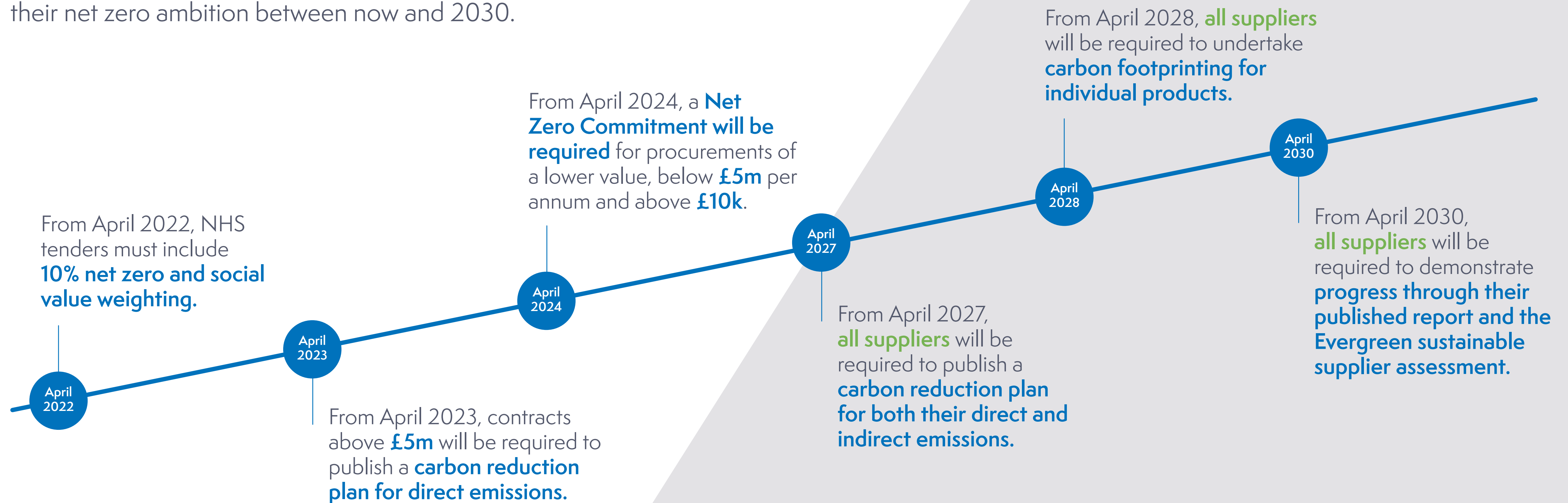
/// Companies that fail to adapt to climate change will go bankrupt ///

Mark Carney, former Governor of the Bank of England



NHS net zero procurement timeline

NHS England Public Board approved a roadmap to help suppliers align with their net zero ambition between now and 2030.



Evergreen Sustainable Supplier Assessment

Introduction to Evergreen

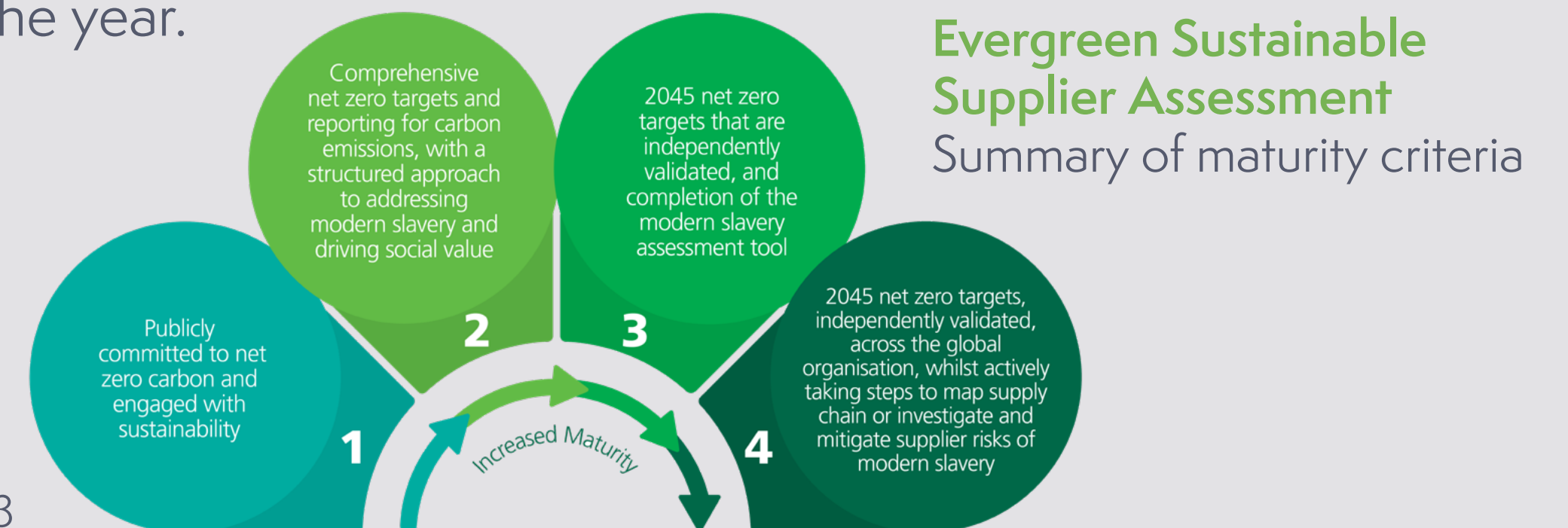
The Evergreen Sustainable Supplier Assessment is an online tool for suppliers to engage with the NHS on their sustainability journey and understand how to align with the NHS's net zero ambitions. Evergreen is hosted on Atamis (the health family e-commerce procurement system). All suppliers can access the assessment once they have registered with Atamis. [Log in and registration can be found here.](#)

Completing evergreen

The assessment can be completed by any supplier that provides, or plans to provide, goods or services to NHS England, ICBs or an NHS trust in England. It is recommended suppliers complete the assessment annually; their maturity score will be valid for 12 months. However, suppliers will be able to update their annual assessment if changes to their business happen throughout the year.

Maturity criteria

Suppliers will be scored on the degree that they show leadership in net zero and align to the NHS's net zero targets. A supplier will be assessed against four maturity levels that indicate alignment with NHS's sustainability priorities. The maturity descriptors are provided below and maturity criteria on the following page.



Evergreen maturity matrix

The detail associated with each level of maturity is provided in the matrix below.

Criteria	Level 1	Level 2	Level 3	Level 4
Environmental measures in effect (e.g. carbon reduction projects)	Required	Required	Required	Required
Scope of net zero target and emissions provided (publicly available)	Scope 1, 2 and a subset of scope 3	Scope 1, 2 and all relevant scope 3	Scope 1, 2 and all relevant scope 3	Global entity and reporting entity: Scope 1, 2 and all relevant scope 3
Geographical boundary of net zero target and emissions provided (minimum)	UK boundary	UK boundary	Global boundary	Global boundary
Net zero target year (minimum and publicly available)	2050	2050	2045	2045
Validation of net zero target and verification of emissions provided	Not required	Not required	Required for reporting entity	Required for reporting entity and global parent company (targets only)
Entity providing target information	Reporting entity	Reporting entity	Reporting entity	Reporting entity and global parent company
Higher performer – transparency reporting (e.g. CDP, EcoVadis or B Corp)	Not required	Not required	Not required	Required
Public modern slavery statement	As per legislative requirements†	Required	Required	Required
Modern Slavery Assessment Tool	As per legislative requirements†	As per legislative requirements†	Required	Required
Identifying and mitigating modern slavery risks	As per legislative requirements†	As per legislative requirements†	As per legislative requirements†	At least one of the following: Actively taking steps to map supply chain Actively investigating incidents and mitigating high risks found
Corporate social value programme	Not required	Required	Required	Required

Wider responsible business considerations

The wider social priorities of the NHS

Businesses need to embed responsible business conduct into policies and management systems. Responsible business conduct should not be an add-on of business activities, but integral

Mathilde Mesnard, OECD Coordinator for Climate and Green Finance



Responsible businesses add social value

Social value

We define social value as the benefits that come from businesses that improve the economic, social and environmental wellbeing of people and communities. Since 2022, NHS England requires all NHS organisations to apply the Government's Social Value Model to the commissioning of goods and services.

Selecting the social value themes

To support the NHS's net zero commitments, NHS England has mandated that every tender must include the fighting climate change theme. Most tenders include two or three social value themes, including the mandated climate theme.

Incorporating social value into your tender

Examples of health focused questions and contract management can be found on the [Incorporating Social Value Criteria](#) document, and further resources on social value can be found [at the end of the guide](#). As in all sectors, social value delivered by a healthcare provider must be in addition to the core deliverables of a tender. For most healthcare procurements, this means social value will relate to how a service is delivered.

The social value model

Themes

Policy outcomes

COVID-19 recovery

Help local communities to manage and recover from the impact of COVID-19

Tackling economic inequality

Create new businesses, new jobs and new skills and increase supply chain resilience and capacity

Fighting climate change

Effective stewardship of the environment

Equal opportunity

Reduce the disability employment gap and tackle workforce inequality

Wellbeing

Improve health and wellbeing and improve community cohesion



The United Nations sustainable development goals



The sustainable development goals

The Goals were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet and provide peace and prosperity to all by 2030.

The UK, among other United Nations' countries has committed to deliver these Goals. Consequently, businesses operating in the UK are encouraged to adopt the Goals as part of their responsible business framework and explore how their product, service and business can contribute to their achievement.

[Learn more about the Sustainable Development Goals](#) ▾



Where to begin as an innovator

A simple guide to why net zero is important for business and where to start as an innovator

/// Innovation is the only way the world can cut greenhouse gas emissions from roughly 51bn tonnes per year to zero by 2050 ///

Bill Gates, Co-chair of the Bill and Melinda Gates Foundation



Net zero is good for business

Innovation is now centre stage for helping us operate more sustainably. Innovations will be critical in tackling climate change and the complexities involved in reducing our emissions. Innovators who ensure their product or service is environmentally sustainable, and are operating sustainably, will benefit for many reasons.

/// Competitive advantage

Sustainability continues to climb the corporate agenda. Most sectors are aiming to include net zero in their supply tender criteria. Being a sustainable business with clear net zero credentials will give you a competitive edge over other businesses.

/// Improved resilience

Aiming for net zero will make your business resilient against market or national disruptions. This is because sustainable businesses can adapt to changes in expectations and market fluctuations.

/// Improved brand

Sustainable businesses are viewed positively; it demonstrates the business cares about the climate change. Research suggests customers increasingly expect companies to make ethical decisions on their behalf.

/// Improved recruitment and retention

Prospective employees are increasingly seeking businesses that have green credentials. People want to work with businesses that care about their impact on the environment. Becoming sustainable means you are more likely to attract better talent and retain your most talented.

/// Increased preparedness for legislation

The NHS became the first health system to embed net zero into legislation, through the Health and Care Act 2022. We will likely see an increase in legislation in net zero over the coming years. Being prepared will prevent any non-compliance issues arising.

/// Financial savings

Becoming net zero ensures your business is more efficient and effective, which could lead to financial savings and less waste.

Where should innovators begin

Step 1

As an innovator, it can be difficult to know where to begin.

These recommendations provide some guidance in the early stages of developing your net zero strategy and approach. There is no one size that fits all, so take an approach that suits your business and its ambitions.

Understand the basics

Read through the relevant resources on NHS net zero.

This summarises the NHS's approach to net zero

This details the full supplier roadmap, with information on the Evergreen assessment

This captures the social value themes and what best practice looks like

Where should innovators begin

Step 2

Measure your impact

Innovators must understand the NHS's net zero requirements and be able to convert that into meaningful actions.

Carbon reduction plans

Calculating your businesses carbon footprint is an essential starting point. A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by your business. Calculating your carbon footprint and creating a carbon reduction plan will help you understand where your emissions are coming from and what opportunities there are to reduce them.

Carbon conversion factors

A carbon conversion factor describes the rate at which a given activity releases greenhouse gases. In order to report the greenhouse gas emissions associated with a business's activities, the carbon emissions need to be converted into activity data such as distance travelled, litres of fuel used or tonnes of waste disposed.

Life cycle assessments

A Life Cycle Assessment is a regulated framework for assessing the environmental impact of a product through its entire life cycle, from production to disposal. It requires rigorous interrogation of a product from the start of the product's life to its end. There are five stages of a product life cycle: raw material extraction, manufacturing and assembly, transportation and distribution, use and lastly waste disposal.

Where should innovators begin

Step 3

Create a net zero strategy

Businesses must integrate sustainability into their business. The six areas below capture the key pillars used when creating a net zero strategy.

Start with governance

Firstly, decide who is responsible for your business becoming net zero and what your governance path for decisions is.

1

2

Calculate your carbon footprint

The first step in developing a net zero strategy is to accurately map your carbon footprint. Targets are meaningless without establishing a baseline.

3

Agree vision and net zero targets

Decide how ambitious your business is going to be in reaching net zero and set net zero targets for your scope 1, 2 and 3 emissions.

4

Create a net zero roadmap

A strong net zero strategy has clear interim targets, milestones and carbon reduction projects to ensure businesses are accountable and stay on track.

5

Understand climate risk

Understand how climate change will impact your product and business operations, and how you intend to mitigate these risks.

6

Offsetting

Most companies cannot cut all their emissions; therefore, offsetting is a supplementary strategy. Businesses must be thoughtful about how much they offset, and where they procure the projects. Offsetting projects must be selected with caution, you must understand the quality of the project before purchasing.

Making your business net zero

When thinking about sustainability, it is important to think about it in terms of your **production, innovation or service** and your **business operations**. Below provides some useful ideas to consider for your product, innovation or service.

Your product, innovation or service

Source materials from and manufacture as locally as possible

Reduce or remove single use plastics

Aim for zero waste to landfill

Reduce or remove packaging

Ensure digital aspects are hosted with renewable energy

Use low impact materials

Avoid coupling materials that cannot be recycled

Produce smaller batches to lower risk of waste

Making your business net zero

Below provides some useful ideas to consider in your business operations.

Your business operations

Switch to renewable energy

Use low/zero carbon vehicles for delivery or transport

Clear accountability and ownership of net zero

Net zero targets with 3-5 year interim goals

Improve supply chain transparency

Encourage climate leadership and training

Become a digital first business and reduce paper, printing and postage

Look to reduce air pollution in local area

Net zero self-assessment

Quick self-assessment to help innovators understand the maturity of their approach

Business leaders are seeing the relationship between long-term success and sustainability, and that's very heartening

Jacqueline Novogratz, Founder and CEO of Acumen, a nonprofit global venture capital fund



Net zero self-assessment

On the journey to becoming a sustainable business, it can be hard to know where you are. Complete this quick self-assessment to better understand where you sit on your net zero journey.

Sustainability self-assessment

1. Does your business have someone responsible or accountable for net zero?
2. Will your product or service support the NHS in achieving their net zero targets?
3. Has your business set net zero commitments?
4. Has your business set intermediate and longer-term targets for net zero?
5. Has your business calculated its carbon footprint?
6. Has your business produced a carbon reduction plan?
7. Has your business undertaken environmental and carbon reduction projects?
8. Does your business source materials from, and manufacture products as locally as possible?
9. Does your business use low-emissions or zero carbon vehicles?
10. Has your business explored climate-related risks?

Yes = 1 and No = 0

Score
1-4

Net Zero Bronze

You are making great progress on your sustainability journey, with some clear focus on net zero in your business.

Score
5-7

Net Zero Silver

You are making excellent progress and evidencing best practice in net zero.

Score
8-10

Net Zero Gold

You are fluent in sustainability, leading the way for others to create a lowercarbon economy for tomorrow.

Frequently asked questions

/// The climate emergency is a race we are losing, but it is a race we can win ///

António Guterres, UN Secretary-General



FAQs

Here are the most asked questions we receive from innovators.

What are carbon offsets?

A carbon offset is the removal or avoidance of one metric tonne of carbon dioxide from the atmosphere. Put simply, it's how companies neutralise their carbon emissions. There are a variety of offset projects companies can engage with. These include carbon removal, the most credible, which involves taking CO² out of the atmosphere and storing it through direct air capture or tree planting for example. The other is carbon avoidance, projects investing in renewable energy like windfarms or solar panels. Credible net zero strategies look at offsetting as a supplementary strategy, not the solution.

Has the NHS set interim net zero targets?

For the net zero target of 2040, for emissions under NHS direct control, the interim target is 80% reduction by 2028-2032. For the net zero target of 2045, for emissions the NHS can only influence, the interim target is 80% reduction by 2036-2039.

How was the NHS's footprint calculated?

An NHS Net Zero Expert Panel reviewed nearly 600 pieces of evidence and worked with Lancet Planet Health. [Full report here.](#)

Do I need to include net zero in my tender, or can I just include the other social value themes?

Net zero must be included in your tender. The social value themes are optional, depending on what is relevant to your product or business.

FAQs

Here are the most asked questions we receive from innovators.

Who are the Greener NHS team?

The Greener NHS team work with our staff, hospitals and partners to reduce the impact of public health on the environment. There is both a national and regional team. [Sign up to the Greener NHS bulletin](#), which is available to anyone interested in what the NHS is doing.

When will I need to produce a carbon reduction plan?

Contracts above £5m will be required to publish a carbon reduction plan for direct emissions from April 2023. But all suppliers will be required to publish a carbon reduction plan for their direct emissions by April 2024, and for their direct and indirect emissions by April 2027.

Can I use a consultant to help me assess my carbon footprint and create a carbon reduction plan?

Absolutely, many of our innovators do use consultants, and some do it themselves. The choice is yours.

How much of the tender relates to net zero and social value, and what are the themes?

10% of the weighting. The themes are net zero, coronavirus (COVID-19) recovery, equal opportunities, economic inequality and wellbeing.

Key resources relating to NHS net zero

Key resources relating to NHS Social Value

Key resources on measuring impact

Carbon Reduction Plans

Carbon Calculators

Life Cycle Assessments

Net Zero Innovator Guide

www.ahsnnetwork.com ▾
Innovator Support ▾

The AHSN Network

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