A GREENER NHS: IMPLICATIONS FOR THE PHARMACEUTICAL INDUSTRY AND SMES.

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CONTEXT

The report provides an ambitious roadmap to delivering a net zero NHS by 2045, with the aim of becoming the world's first net zero national health service. A shift towards sustainability is underway across many industries today, including within the health and pharmaceutical sector. Adding to the many grand challenges the world is facing today due to climate change, the covid-19 pandemic brought to light just how interdependent the health industry is on its supply chain - with medical equipment and medicine supplies being affected and disrupted by logistical, transportation and labour shortage issues across the industry.

As part of an overarching effort to build a more resilient, reliable, and sustainable supply chain moving forward, the National Health Service (NHS) in England recently unveiled its Greener NHS report titled 'Delivering a Net Zero National Health Service'. As Sir Simon Stevens states in the report, "The burden of coronavirus has been exacerbated and amplified by wider, deep-seated social, economic and health concerns. The right response is therefore not to duck or defer action on these longer-term challenges even as we continue to respond to immediate pressures. It is to confront them head on."

Staying true to this statement, the report provides an ambitious roadmap to delivering a net zero NHS by 2045, with the aim of becoming the world's first net zero national health service. Outlined in the plan are specific targets for NHS suppliers to meet in the coming years, as the industry collectively moves towards a greener future. All these factors combined provide the context for this whitepaper, which explores the following question:

With pressure mounting on Pharmaceutical Small & Medium Enterprises (SME) to operate more sustainably, how are pharma SME organisations across the supply chain responding to, and approaching, sustainable transformation within their own operations?

To answer this question, it's important to first understand the strategy that has been set out by the NHS in England. As the biggest customer for most pharmaceutical SME's operating in the UK, the NHS's plans have a direct impact on the business operations of these organisations, both domestically and globally.



DELIVERING A NET ZERO NATIONAL **HEALTH SERVICE:** IMPLICATIONS FOR SUPPLIERS

Today, the National Health Service (NHS) in England accounts for 4% of the UK's carbon emissions, and approximately 7% of the country's economy.¹ With over 1.3 million employees, the NHS is the largest employer in the UK and Europe. Add to this the hundreds of suppliers that work with the national health system, the impact it has on the environment, on society and on the economy is great. Equally great is the opportunity the NHS has to make a positive impact. With calls for action growing across the globe for governments, businesses, and individuals to address the climate crisis facing the world today, the NHS is the first health service to come forward with an ambitious plan to be net zero (scopes 1, 2 and 3) by 2045.

The NHS's primary mission is to provide high-quality care for all, now, and for the future.² Guided by the understanding that the health of the planet and the health of people is inextricably linked, with the publication of its net zero plans the NHS has demonstrated its steadfast commitment to being a world leader in sustainable healthcare.

In September 2015, five years prior to publishing its net zero plan, the NHS conducted a public survey to gauge the public's interest and support for a more sustainable health care service. The survey followed an earlier survey which was conducted in 2013. The results were clear - the public voiced that sustainability was indeed an important issue for the health care system, with 92% of respondents stated it was important for the health care system to operate more sustainably. When asked if the health service should operate sustainably even if this meant it would cost more, 43% of respondents supported this (up from 36% in the 2013 survey). Overall, the survey showed the public supported a more sustainable healthcare service.

September 2015 Public Survey

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With the public's support established, on October 1, 2020, in the middle of the Covid-19 global pandemic, the NHS in England (NHSE) published its Greener NHS plan, which was titled 'Delivering a Net Zero NHS'. The plan outlines the health service's goals and objectives for the coming years, which involve its customers and supply chain. Within the plan the NHS states its ambition to become the world's first net zero health service. With the publication of this plan, the NHS became the first national health organisation to make this commitment.

To meet its ambitious goal, the health service defined the following two targets in their plan³:

- For the emissions we control directly (the NHS Carbon Footprint), we will reach net zero by 2040, with an ambition to reach an 80% reduction by 2028 to 2032;
- For the emissions we can influence (our NHS Carbon Footprint Plus), we will reach net zero by 2045, with an ambition to reach an 80% reduction by 2036 to 2039.

The NHS recognises that to achieve net zero it will need the support of all their stakeholders, including each of the NHS's trusts, as well as their suppliers.

https://www.england.nhs.uk/greenernhs/national-ambition/, accessed May 2022. https://www.england.nhs.uk/greenernhs/national-ambition/, accessed May 2022.

https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/, accessed May 2022.

To help guide the NHS's trusts on this journey, in June 2021 the NHS published a Green Plan document, which details a list of requirements for trusts to work towards as they develop their own plans in alignment with the broader NHS vision.

Additionally, to bring their suppliers on board, the NHS outlined specific requirements in the form of a road map for each of their suppliers – with the aim of encouraging and guiding them to do their part and to help the health service achieve their short, medium, and long-term goals. Key objectives and targets outlined in the NHS's supplier road map are summarised in Figure 1.

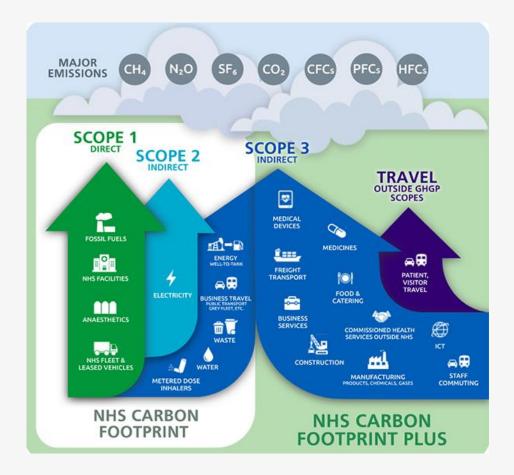


Figure 1 – Net zero Supplier Roadmap⁴

From April 2022	All NHS procurements will include a minimum 10% net zero and social value weighting. The net zero and social value guidance for NHS procurement teams will help unlock health-specific outcomes (building on PPN 06/20).
From April 2023	For all contracts above £5 million, the NHS will require suppliers to publish a carbon reduction plan for their UK Scope 1 and 2 emissions as a minimum (building on PPN 06/21).
From April 2024	The NHS will extend the requirement for a carbon reduction plan to cover all procurements. Suppliers will be required to publish a carbon reduction plan for their UK Scope 1 and 2 as a minimum.

⁴ https://www.england.nhs.uk/greenernhs/national-ambition/, accessed May 2022.

From April 2027 All suppliers will be required to publicly report targets, emissions and publish a carbon reduction plan for global emissions aligned to the NHS net zero target, for all their Scope 1, 2 and 3 emissions.
From April 2028 New requirements will be introduced overseeing the provision of carbon foot printing for individual products supplied to the NHS. The NHS will work with suppliers and regulators to determine the scope and methodology.
From 2030 Suppliers will only be able to qualify for NHS contracts if they can demonstrate their progress through published progress

Given the rise in global issues such as climate change and the Covid-19 pandemic, it has become increasingly clear that there is a direct link between the climate crisis and the health crisis the world is experiencing today.

reports and continued carbon emissions reporting through

the Evergreen sustainable supplier assessment.

Developing the net zero road map and plan, in some ways, was the easy part. Achieving the plan is where the challenging work begins and requires collaboration with each of the NHS's key stakeholders.

While the net zero plan has some big goals, it also includes some low-hanging fruit, like recycling for instance. To drive meaningful change however, the health service recognises it needs to go beyond short-term goals. Given that 62% of the NHS's emissions come from its supply chain, the health service created a roadmap for suppliers to meet basic requirements over the next decade (see Roadmap in Figure 1). While there are some questions, from the industry, around the specific targets and how to measure and achieve them – the end-goal is clear. By the end of this decade, if suppliers do not meet the basic requirements, they will no longer be able to work with the NHS.



The UK pharmaceutical industry is strongly linked to the NHS, who represents more than 98% of the UK's prescription medicines market. The UK pharmaceutical sector employs approximately 63,000 people and generates a market value of approximately £21 billion, making it the sixth largest pharmaceutical market worldwide.

Among the many stakeholders within the pharmaceutical sector that are facing pressure from governments and the NHS to adapt and to become more

The UK pharmaceutical industry is strongly linked to the NHS, who represents more than 98% of the UK's prescription market. sustainable are hundreds of small and medium-sized enterprises (SMEs) who are currently supplying the UK's pharmaceutical industry.

Understanding sustainable transformation takes time, especially for SMEs. Recognising this, the NHS roadmap includes a two-year grace period to allow companies time to respond and adapt to the changes that are being asked of them. Furthermore, the NHSE Sustainable Procurement and Supply Chain Team is centrally driving supplier engagement across the NHS supplier base.

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To help accelerate sustainable transformation throughout the supply chain, and to gain insights into industry best practice, the NHS has set out to recognise suppliers who are going further and faster on this journey.

While the NHS's plan is undoubtedly bold, underpinning its commitment to the goals it has set out, on July 1, 2022, the NHS also became the first national health system to embed its net zero target into legislation with the Health and Care Act 2022. Under this Act, the Delivering a Net Zero National Health Service report becomes more than a plan as it is now issued as statutory guidance[5].

By embedding its plans into legislation, the NHS's commissioners and providers are required to address the net zero emission targets. The Act also considers measures to mitigate the impacts of climate change identified within the 2008 Climate Change Act[6].

Altogether, with the steps the NHS is taking to turn its commitments into action, the national health service is leading the way forward for the industry.

The assessment will provide a platform for suppliers to engage with the NHS on the requirements of the net zero supplier roadmap. The aim of the programme will be to provide a pathway for communications and data gathering between suppliers and decision makers across the NHS organisation. The assessment is currently being piloted throughout 2022, and will be more widely rolled out in 2023.

The NHS has set the bar high for the industry.

When looking at where the NHS is positioned on the global healthcare map, compared to markets like the US and China it's a much smaller player. That said, as the first national health service to commit to net zero, the NHS has raised the bar high for the industry. While the NHS's plan is undoubtedly bold, underpinning its commitment to the goals it has set out, on July 1, 2022, the NHS also became the first national health system to embed its net zero target into legislation with the Health and Care Act 2022. Under this Act, the Delivering a Net Zero National Health Service report becomes more than a plan as it is now issued as statutory guidance[5].

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[5] https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/, accessed July 2022.
 [6] https://www.england.nhs.uk/greenernhs/get-involved/organisations/, accessed July 2022.

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Altogether, with the steps the NHS is taking to turn its commitments into action, the national health service is leading the way forward for the industry.

To achieve the goals it has set out, the first step the NHS is taking is to engage key stakeholders and support them on their own journeys. It is only through industry-wide collaboration and engagement that the NHS can inch closer towards meeting its own net zero target.

To understand the impact the mounting pressure is having on the supply chain, in the UK and abroad, this paper explores how SMEs are responding and adapting their operations and practices to align with the green goals that are being set out by the broader industry.

One organisation that plays a pivotal role in helping SMEs in the UK navigate the NHS's net zero roadmap, and helping them understand what it means for them, is the British Generic Manufacturers Association (BGMA). The BGMA represents the interests of generic medicine manufacturers and suppliers based in the UK. Its members make up 85% of the total UK generic medicines market.

The primary goal of the BGMA and its members is to make potentially lifesaving medicines more affordable and more accessible for patients across the UK. This is a goal the association shares with the NHS. Given the funding challenges and increased pressure for the NHS to deliver high-quality health care for all, having access to affordable medicines is critical. Each year, generic medicines save the NHS approximately £13 billion annually. It is crucial therefore that as part of the NHS's plan to transition towards net zero, that its suppliers can successfully adapt while still maintain their ability to deliver affordable medicines to the healthcare system.

One of the key benefits the generic medicines market provides to the industry is a competitive marketplace, which leads to affordable pricing of generic medicines. Highlighting the importance of a competitive market, and what this means for the NHS and its patients, is a key objective of the BGMA. Put simply, if the Greener NHS plan leads to fewer suppliers who can meet the requirements outlined by the health service, this will inevitably lead to less competition and higher prices. It is a risk the BGMA wants to ensure is well understood by all stakeholders. While a net zero target is no doubt beneficial to the planet, and to the long-term health of patients, it is important that it does not come at the cost of patients' health in the short-term.

One of the main priorities for the BGMA Sustainability Working Group is to leverage the knowledge and expertise of its members, as well as other industry experts.



NAGIVATING THE JOURNEY TO NET ZERO: THE IMPORTANT

ROLE THE BRITISH GENERIC MANUFACTURERS ASSOCATION PLAYS IN SUPPORTING PHARMACEUTICAL COMPANIES AND THE NHS Key to delivering on the NHS's ambitious goals is the health services ability to clearly communicate and educate its stakeholders. For effective collaboration to take place, this communication needs to be two-ways. While steps must be taken by the NHS to clearly outline their expectations for suppliers, equally important is ensuring suppliers are voicing their concerns and needs.

Since the NHS first published its plan the BGMA has played an active enabler role, engaging with both the NHS and their members throughout this journey. For the BGMA, educating their members about expectations, while at the same time informing the NHS about the challenges members are facing at the supply chain level, is an incredibly important part of the transformation process. It is only through this combined top-down and bottom-up approach that all stakeholders can collectively learn, adapt and work together towards achieving the targets that have been set.

According to the BGMA, when it comes to what suppliers need most in terms of support on this journey - above all, suppliers are looking for clarity. Clarity around the specific short, medium, and long-term goals - in terms of what they mean and how do they need to be measured. Committed to ensuring all stakeholders are engaged throughout the process, the BGMA set up a Sustainability Working Group, for the sole purpose of conversing and connecting with their key stakeholders, including their members and the NHS.

What has become clear to the Sustainability Working Group, following initial discussions with their members, is that tracking and measuring carbon emissions throughout the medicines supply chain is a far more complex process than tracking emissions for other parts of the industry, like equipment or supplies for instance. It is these types of complexities that the BGMA aims to raise with the NHS, so that together they can support suppliers and provide them with the tools they need to realistically achieve the targets that have been defined.

All NHS tenders will now include a minimum 10% net zero and social value weighting.

According to Joseph Leddy, the Chair of the BGMA Sustainability Working Group, one of the main priorities for the group is to leverage the knowledge and expertise of its members, as well as other industry experts. He stresses the importance of sharing best practice from within the industry, but also from other industries, so that all stakeholders can be educated and informed as they continue on this journey. While the goals and targets may seem daunting, Joseph's advice to companies is to breakdown the big targets into smaller and more manageable goals.

One of the more immediate actions outlined in the NHS's supplier roadmap, which went into effect in April 2022, is that all NHS tenders will now include a minimum 10% net zero and social value weighting. Given the significant weight that is being placed on carbon emissions and social initiatives, it is incredibly important that suppliers have a clear understanding of the expectations and steps that need to be taken, otherwise they risk losing the NHS as a valuable customer.

While the expectations that have been put forth by the NHS are high, they are setting the pace for an industry that, up until now, has been slow to transition towards more sustainable practices. When looking at the pharmaceutical industry, there are a few big players who are engaging with sustainability, but there are many more that are either just beginning to improve their practices, or who have not yet started their journeys and in turn are feeling the pressure.

According to Michael Clarke, Strategic Engagement Advisor of the BGMA, the organisations that are leading the way towards a more sustainable future in the industry see it as a competitive advantage, in terms of providing brand, reputation and commercial benefits. Those who have been adopting more sustainable business practices for some time now are no doubt better

positioned to meet the expectations set out by the NHS for the coming years and decades.

Reinforcing how sustainability is increasingly shaping the competitive landscape for the industry, Michael Clarke explains, "A key difference between the leaders and those who are just beginning their journeys is that the big players can look further down the road and start to work on some of the longer-term targets that have been set. Conversely, the smaller companies who are just beginning their journeys and have fewer resources are looking at the very next goal that needs to be met."

When it comes to challenges the SMEs are facing, one of the main concerns the BGMA has raised with the NHS is in relation to the product specific carbon footprint that will be required in 2028. This requirement in and of itself presents many challenges for companies. Michael Clarke provides the example that one product may contain an ingredient that is made in several different countries, and the production process may involve multiple products at the same time. Once the product is produced, it will then be transported to a packaging plant, and then the product is sent for distribution and transportation to the UK. This activity needs to be considered for each ingredient and product that is produced. Altogether, the chain of events involves many players and stakeholders, not all of whom may be known to the company that needs to report their scope 3 activities to the NHS. Clearly the process is complex.

Given the complexity of tracking scope 3 emissions at the medicines supply chain level, it is not surprising that there are many questions from suppliers in terms of proper tracking and measurement. Also not surprising, during these early days, is that there seems to be more questions than answers and all stakeholders are learning together on this journey.

Going forward, the primary focus of the BGMA will be to help organisations identify the big challenges they are facing as they work towards meeting the NHS's targets, while at the same time engage with the NHS to help address these challenges. What is clear from each of the stakeholders engaged for this paper is that what will be the key to success for all involved will be clear communication around specific targets and expectations, especially in relation to scope 3. Additionally, Joseph Leddy stresses the importance of partnerships across the industry, as well as with other nations. "Aligning with the MHRA in the UK, and similar regulatory bodies in other countries, is essential for sustainable transformation to effectively be realised across the industry."

On this road towards net zero, the BGMA acknowledges that while regulation and government support is important, as the largest pharmaceutical customer in the UK - the key driver towards sustainable transformation for the industry today is no doubt the NHS.

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HOW ARE SMES RESPONDING TO THE PRESSURE?

As part of this research, several SMEs were interviewed to discuss how they are engaging with this process of transformation. Insights from their experiences are presented ahead.

CONSILIENT HEALTH

One SME organisation that has been preparing for the inevitable changes coming from the NHS is Consilient Health. Founded in 2005, Consilient Health is a front-end pharmaceutical company that focuses on the commercialisation of medicines.

As an organisation that has integrated sustainability into its current business plan, under the pillar of 'Being a Responsible Business', Consilient Health has already begun its sustainable transformation journey in line with the plan that has been set out by the NHS.

Consilient Health developed a comprehensive sustainability strategy in 2020, which includes a range of initiatives aimed at improving economic, environmental, and social performance. In 2021, the company assessed f its carbon footprint for the first time and is now working on a carbon reduction and carbon offsetting strategy to become net zero.

For Consilient Health, meeting the scopes 1 and 2 targets that have been outlined by the NHS should be readily achievable. Meeting scope 3 targets will be a tougher challenge however, even for a company that has already integrated sustainability into its business, as that would imply influencing suppliers that very often are giant pharma manufacturers. The good news for Consilient Health is that these big pharma companies are taking action, with several having committed to net zero already.

"It is part of our sustainability strategy to become net zero in the longer term, not because the NHS is pushing us to do so, but because it is the right thing to do and because this is well aligned with our corporate purpose of impacting positively, and not negatively, with our business activities. Indeed, it is a complex transformation we are dealing with, but we recognise many opportunities are open and we are keen to collaborate with many industry players to make this happen."

Karen Pulley, Head of Sustainability, Consilient Health

B. BRAUN

Another pharmaceutical organisation that operates with sustainability at the centre of its business is B. Braun. B. Braun is one of the world's leading manufacturers and providers of high-quality health care products and services. Today the company is led by sixth-generation family members. Since the company was founded in 1839, sustainability has always been at the heart of the company and its family-driven values.

For a large organisation that has been engaging with sustainability for several years, and has access to more resources, most of the targets set out by the NHS are deemed reasonable and achievable. That does not mean the organisation doesn't face any challenges, however. Given the organisation operates in 64 countries around the globe, it must adhere to several different regulations globally. To help navigate the many different regulatory requirements, the company formed a Global Steering Group.

In line with the NHS's roadmap, a key focus of B. Braun's sustainability strategy is to reduce its carbon emissions footprint. When it comes to best practices across the industry, Ian Duncalf, Head of Anaesthesia and I.V. Pharma at B.

Braun, acknowledges that while sustainability is a driver for change, many organisations view it as a competitive advantage. Because of this, the industry is still at a stage where best practices are not yet being shared too widely. In his view, one of the reasons for this is linked to the NHS's procurement policy, which places a 10% weighting on net zero and social value. At the end of the day, lan Duncalf aptly points out that companies are still competing for business and market share.

According to Ian Duncalf, where the company faces the greatest challenge, in relation to the NHS's plan, is around scope 3, which requires reporting about activities that take place in countries outside of where they operate.

"With this ambitious plan, the UK is hindered slightly. The NHS is leading the way globally. However, we are almost running before we can walk. I think, to meet the changes the NHS is asking for, some of these changes need to happen globally before locally. I understand why they are doing it, but they are probably three years ahead of where the rest of the world is."

Ian Duncalf, Head of Anaesthesia and I.V. Pharma, B. Braun

ACCORD HEALTHCARE

In addition to leading the BGMA Sustainability Working Group, Joseph Leddy is the Senior Director EHS EMENA at Accord Healthcare pharmaceutical company. When it comes to the NHS's short, medium, and long-term goals, Joseph Leddy acknowledges that while there are some big challenges for organisations, he believes the goals are achievable.

"There are certainly some big challenges, but putting that marker in the sand (e.g., meeting specific targets by 2028, 2030 etc.) is commendable of the NHS. Prior to this plan, it was the Scandinavian countries that were leading in this area and quite frankly the UK was lagging. But with their roadmap the NHS is now leading the way. I must give credit to the NHS for their ambitions. You need to start somewhere."

Joseph Leddy, Accord Healthcare and BGMA Sustainability Working Group Lead

Given where Accord Health is on its own sustainable transformation journey, the organisation is well positioned to meet the goals set out by the NHS. In line with responses from other organisations interviewed for this paper, the organisation is on track to meet the scope 1 and 2 targets that have been set. According to Joseph Leddy, the product-specific scope 3 targets present the greatest challenge. *"We are used to complex supply chains. But trying to quantify and influence change at the supply chain level, that is a whole other level of complexity. No doubt it will be challenging, but exciting at the same time."*

The authors of this whitepaper would like to emphasise the views within this paper are their own and are not endorsed by NHS England and NHS Improvement. NHS England and NHS Improvement are not formally associated with this whitepaper.

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Paolo teaches Strategy, Consulting and Sustainability at UCL School of Management where he is also a member of the School's senior management team.

Before UCL, Paolo spent six years at Imperial College London where he is still a Visiting Professor. Paolo's research on corporate sustainability is internationally recognised and his books internally appreciated. Outside of the academy, Paolo has significant consultancy experience in the fields of strategy, education, and sustainability. Today, he advices influential organisations in the UK, Italy, US, Canada and India.

His projects, quotes and opinions have been featured over 200 times in media outlets like The Financial Times, Forbes, Sole 24 Ore, Sky News, Mediaset and CNN.

In 2018, Paolo was chosen by influential website Poets & Quants as one of the world's top 40 business school professors under the age of 40. In 2021, Paolo was indicated by Italian's leading business daily Sole 24 Ore as the most influential Italian under the age of 40.

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