



**Making our green
dream a reality**

#MKUHGreenerFuture

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Introduction

In October 2020, the NHS announced its ambition to become the world's first healthcare system to commit to reaching net carbon zero. This commitment was made in response to the profound and growing threat to health posed by climate change.

The climate emergency is absolutely a health emergency, with evidence clearly demonstrating the direct and immediate consequences the crisis has on our staff and the communities we care for. This evidence indicates that air pollution is the single greatest environmental threat to human health in the United Kingdom (UK), accounting for 1 in 20 deaths. The UK heatwaves of 2020 claimed more than 2,500 lives.

Over the last 12-18 months, there has been some fantastic work undertaken up and down the country, to reduce emissions and create healthier, more sustainable environments for local communities. The progress made over this period has seen the NHS reduce emissions equivalent to powering 1.1 million homes annually.

At Milton Keynes University Hospital NHS Foundation Trust (MKUH) we are proud that environmental considerations have been a priority for many years. We recognise this as part of our corporate responsibility and seek to lead as an example to other NHS providers. Across the organisation, teams are working collaboratively on some incredible and innovative initiatives to reduce carbon emissions and improve our environmental footprint – with projects varying from the introduction of solar panels, to enhancing opportunities for biodiversity across the hospital site. All this work is being carried out in-line with supporting the national ambition.

Through reducing harmful carbon emissions, we can help improve health and quality of life. It is important that we act now so that we can continue to provide a sustainable service today and for future generations.

Through engaging with our teams on this agenda, it is clear to see the passion and enthusiasm for adopting greener ways of working, whilst placing the patient at the heart of everything we do. Our #MKUHGreenerFuture plan will create a framework for our collective efforts to reduce carbon emissions and reach our ambitious targets. We will need the help, support, and expertise of every single member of #TeamMKUH including our local community.

A key trait of the #MKUHGreenerFuture plan is our collaboration with partner institutions, including Milton Keynes Council, who share a likeminded determination to provide a sustainable, safe, and 'green' service for the people of Milton Keynes, becoming net carbon zero by 2030.



National Context

Climate change is recognised as a key health crisis facing the world in the 21st century. In response, the UK is committed to becoming carbon neutral by the year 2050, as per the Climate Change Act of 2008¹.

The NHS has a carbon footprint of 18 million tonnes CO₂ per year; this is composed of energy (22%), travel (18%) and procurement (60%). Despite an increase in efficiency, the NHS has increased its carbon footprint by 40% since 1990. This means that meeting the Climate Change Act target of a 26% reduction in carbon footprint by 2020 and 80% reduction by 2050 will be a huge challenge².

The NHS is the largest employer in Britain and is responsible for around 4% of the nation's carbon emissions. If this country is to succeed in its overarching climate goals, the NHS must play a major role in leading a reduction in carbon output whilst maintaining and improving health outcomes both nationally and locally.

In January 2020, Sir Simon Stevens, as CEO of NHS England, announced the 'For a Greener NHS' campaign. This campaign sought to provide high-level backing for the NHS to adopt sustainability measures to combat the issue of climate change.

In 2020, as part of the 'For a Greener NHS Campaign', an expert panel was commissioned to review how the NHS can achieve net zero as soon as possible. The outputs were published in October 2020 in a report called '**Delivering a Net-Zero NHS**'.

The NHS aims to be the world's first net zero national health service and has set two targets:

Each year, the NHS has a carbon footprint of

18 million tonnes CO₂

This is composed of:

-  **18% Travel**
-  **22% Energy**
-  **60% Procurement**

1

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**

2

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**

¹ www.legislation.gov.uk/ukpga/2008/27/contents

² [Delivering a Net-Zero NHS](#)

Milton Keynes University Hospital – An overview

Milton Keynes Hospital NHS Foundation Trust was founded on 1 October 2007. The Trust partnered with the University of Buckingham to establish the first independent Medical School in the country; and in April 2015, changed its name to Milton Keynes University Hospital NHS Foundation Trust to reflect this status.

The Trust typically has around 90,000 emergency department attendances, more than 58,000 emergency/elective admissions and 384,000 outpatients' attendances.

The hospital has around 550 beds and employs approximately 4,000 staff, providing a full range of acute hospital services and an increasing number of specialist services to the growing population of Milton Keynes and surrounding areas. Today Milton Keynes has a population of approximately 273,000, this is forecast to grow by a further 72% to 469,000 over the next 30 years at a rate of 2.4% per annum.

Over the last 10 years, the Trust has invested significantly in its facilities and has developed new services and pathways to improve outcomes for patients, as well as the experience they receive whilst in our care. Further developments are planned for the coming years as the Trust responds to the changing health demands of the local population.

Plan:MK, created by Milton Keynes Council, sets out a vision for MK as a green and spacious place with a thriving economy and new facilities. It outlines MKC's ambition to be net carbon zero by 2030, a vision that MKUH aspires to align with.



The hospital has around **550 beds** and employs approximately **4,000 staff**



The MK Way

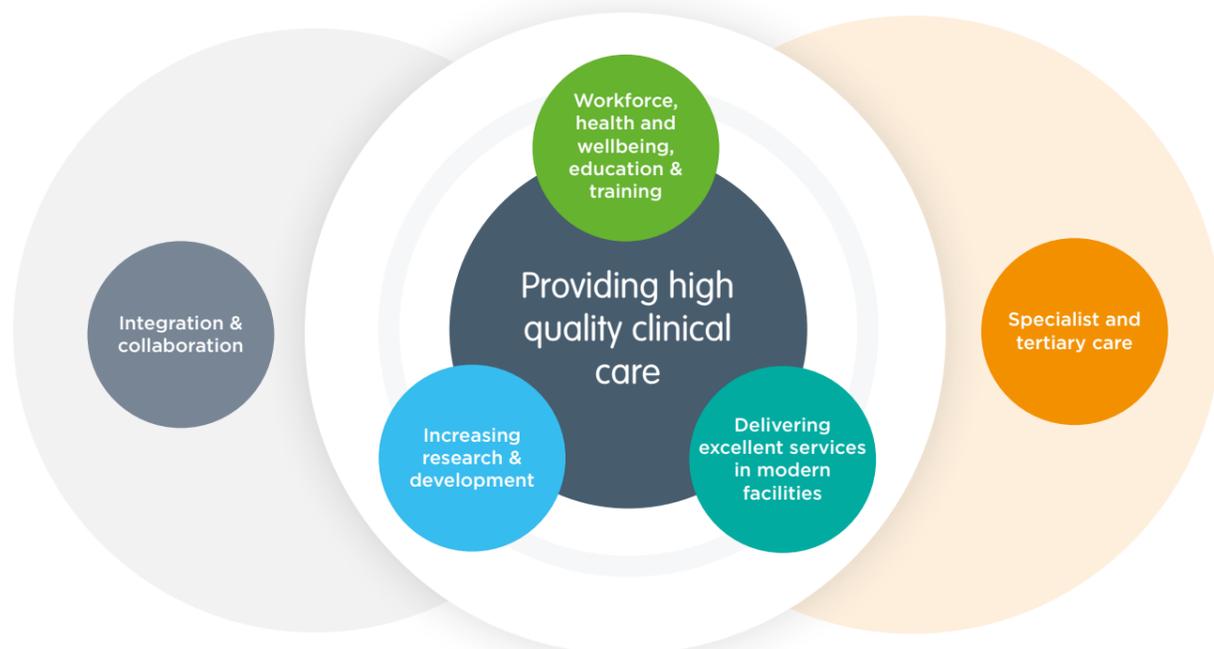
The MK Way is our vision, values, strategy, and objectives for Milton Keynes University Hospital and was developed in collaboration with staff. These are all important as they provide the framework in which we operate, and our values particularly outline what we all believe is important in how we work.



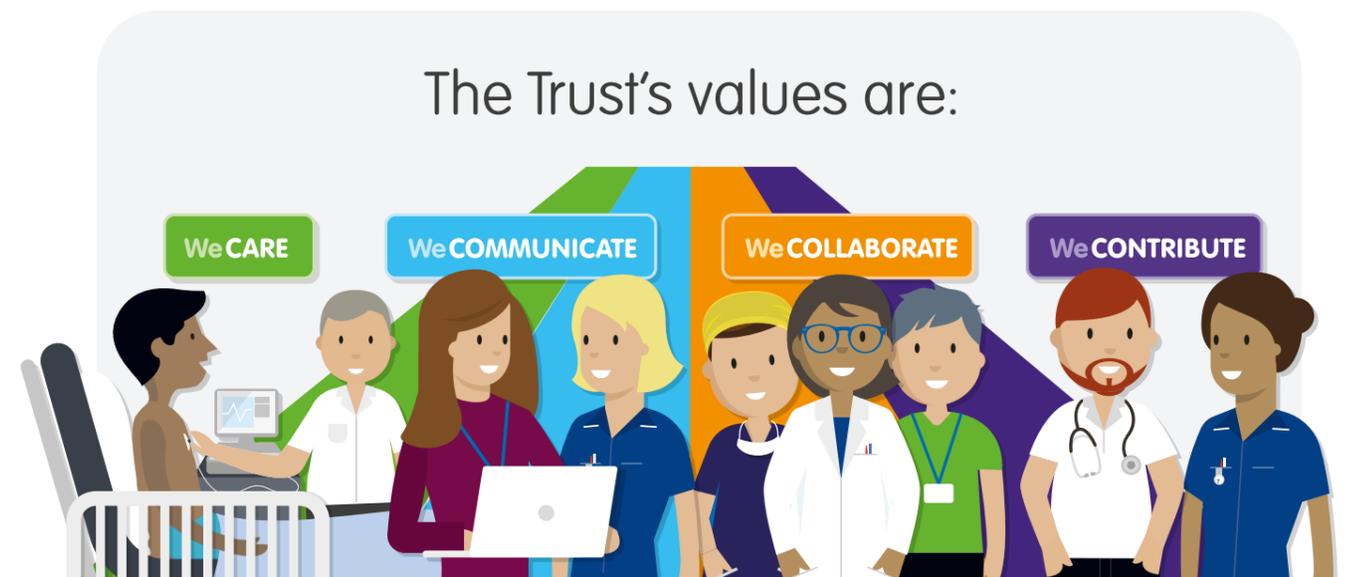
MKUH Objectives:



MKUH Strategy:



MKUH Values:



The Foundations of our Green Plan

To support the national ambition, all NHS organisations are required to meet several minimum targets before the end of the 2021/22 financial year, and before the publication of their Green Plan.



The table below indicates how MKUH compares to these goals (as of January 2022):

As per the 2021/22 NHS Standard Contract:	
Every trust to ensure a board member is responsible for their net zero targets and their Green Plan. Similarly, every ICS is asked to designate a board-level lead to oversee the development of their own Green Plan.	●
Every trust to purchase 100% renewable energy from April 2021, with supply contracts changing as soon as possible.	●
Every trust to reduce its use of desflurane in surgery to less than 10% of its total volatile anaesthetic gas use, by volume.	●
Every ICS to develop plans for clinically appropriate prescribing of lower carbon inhalers	●
As per Delivering a net zero National Health Service	
Ensure that, for new purchases and lease arrangements, systems and trusts solely purchase and lease cars that are ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs)	●
Develop a green travel plan to support active travel and public transport for staff, patients and visitors.	●
As per the 2021/22 NHS planning guidance	
Where outpatient attendances are clinically necessary, at least 25% of outpatient activity should be delivered remotely, resulting in direct and tangible carbon reductions.	●

TheMK
GreenPlan

Our ambition

#MKUHGreenerFuture

At Milton Keynes University Hospital, our ambition is: “To be net carbon zero, for the emissions that we control, by 2030, ensuring that we provide a sustainable service for all of our patients now and in the future.”



Green Commitment from Milton Keynes University Hospital

Milton Keynes University Hospital NHS Foundation Trust is committed to achieving the national NHS ambition of becoming net carbon zero, both for the emissions we control and those we influence indirectly.

This aspiration, to be completed at MKUH by 2030 for the emissions we control, will create cleaner, safer, and healthier environments for our local population, helping to prevent ill-health caused by the rising impact of climate change, both now and for future generations.

As well as reducing carbon emissions, we are dedicated to improving the way in which we deliver our services so that they are sustainable and make more effective use of the resources that we have available. Our biggest asset is our staff, and a significant part of our green plan is identifying ways that we can continue to enhance the wellbeing services – both for physical and mental health – that we offer to our workforce.

We understand the challenges associated with becoming net carbon zero by 2030 and to achieve this objective requires working collaboratively to encourage a culture which supports our environmental responsibility. This encompasses our staff, our patients, suppliers and local health and care services all working in partnership to share ideas, best practice and to strive to take a proactive approach to overcome these challenges, rather than wait for others to solve our problems.

We recognise the need to take action to prevent the negative impacts of climate change on our environment and make improvements which will support, protect, and enhance biodiversity and wellness throughout the organisation.

We will continue to embed sustainable practice into everything that we do, ensuring that these aspirations are at the core of our overall Trust strategy and that we make green ways of working everyone's business. Delivering our #MKUHGreenerFuture plan requires the support of every single individual across our organisation and through their passion, enthusiasm, and expertise, we can help to transform the way we deliver care.



The #MKUHGreenerFuture plan will:

- ✓ Demonstrate our vision for becoming net carbon zero by 2030
- ✓ Outline our green ambitions, along with our plans for achieving these targets
- ✓ Summarise how all parts of the organisation are championing greener practices and what actions they are prioritising over the next three years
- ✓ Detail how we will meet our legislative targets, both nationally and locally; and
- ✓ Demonstrate how we will evaluate our impact and monitor progress

Delivering our #MKUHGreenerFuture plan requires the support of **every single individual** across our organisation

Signed

Joe Harrison

Joe Harrison
Chief Executive

Alison Davis

Alison Davis
Chair

John Blakesley

John Blakesley
Deputy Chief Executive

Kate Jarman

Kate Jarman
Director of Corporate Affairs

Nicky Burns-Muir

Nicky Burns-Muir
Director of Patient Care and Chief Nurse

Dr Ian Reckless

Dr Ian Reckless
Medical Director

Terry Whittle

Terry Whittle
Director of Finance

Danielle Petch

Danielle Petch
Director of Workforce

Emma Livesley

Emma Livesley
Chief Operating Officer and Director of Operations

Jackie Collier

Jackie Collier
Director of Partnerships & Financial Efficiency

Our Approach

Our #MKUHGreenerFuture plan extends beyond simply reducing our carbon emissions. With our central role in the heart of the Milton Keynes community and being one of the largest employers in the area, it is our responsibility to lead by example and show others what is possible.

As such, our Green Plan will encompass our impact on the local community, from an environmental, societal and economic point of view. This includes everything from the staff we employ, how we work with schools and other educational partners and the way in which we conduct ourselves.

It is through taking this collaborative approach that we believe will enable us to deliver on our ambitious plans to be net carbon zero by 2030.

With over 4,000 employees, we have a dedicated, passionate, and enthusiastic cohort of staff who have some amazing ideas. They are experts in their individual areas, and we are utilising this passion and expertise to help develop our plans.

To extend our Green Plan beyond reducing carbon emissions, we have identified the following four themes that will underpin everything we do across the whole of the hospital and of which we will assess all our workstreams against. These themes are:

Net carbon zero

Reducing our carbon emissions across all our direct activities, including working with our supply chain to partner with suppliers who share similar ambitions.

Biodiversity

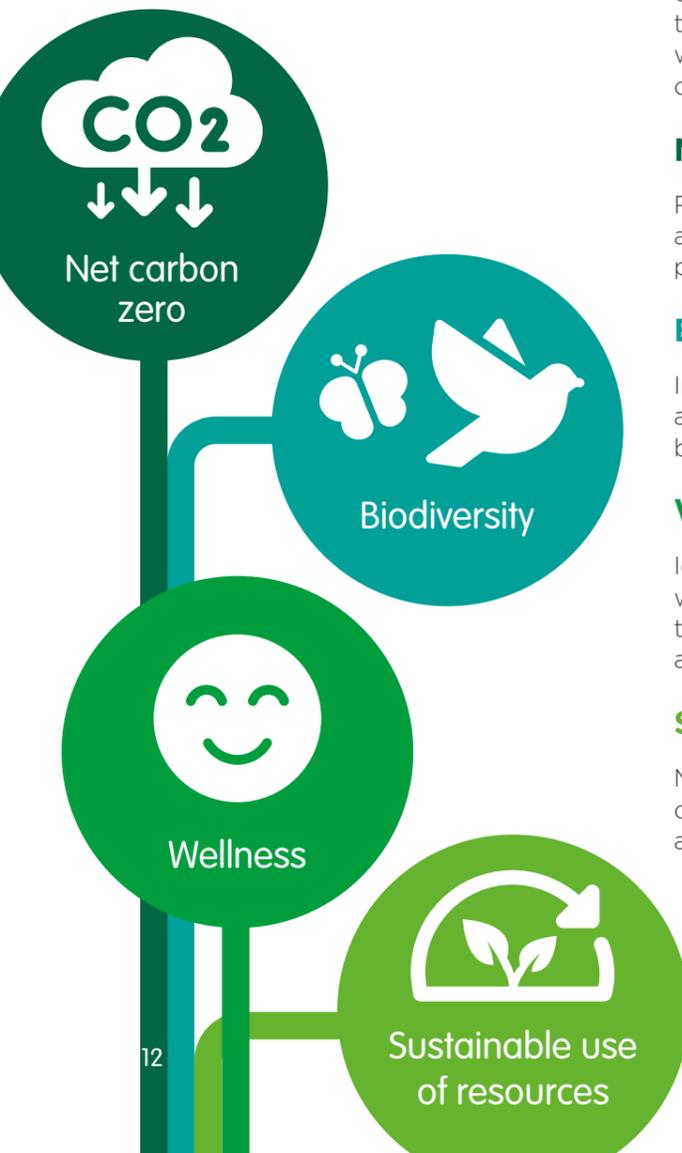
Increasing access to green spaces across our site and identifying ways that we can encourage greater biodiversity.

Wellness

Identifying ways to better support the health and wellbeing of #TeamMKUH, providing inclusive access to a suite of initiatives that can improve the physical and mental wellbeing of our colleagues.

Sustainable use of resources

Making sure we effectively and efficiently make use of the resources that we have, from the funding we are provided with to how we prescribe medication.



Identifying ways that we can encourage greater biodiversity

Progress So Far

Sustainability has been at the core of our work for several years and already, the Trust has made considerable progress to reduce emissions, embrace new technologies and improve access to health and wellbeing services.

From an operational carbon reduction perspective, the Trust has made some excellent progress over the last few years which is highlighted in the tables below:

MKUH		
Year	CO ₂ (tonnes)	Carbon (tonnes)
2021 (as of Nov 21)	6,863	1,871
2020	7,127	1,944
2019	9,075	2,475
2018	9,728	2,653
2017	9,401	2,564

Year	Electricity KWh	Gas KWH	Oil KWH	Water m ³	Waste - General Landfill Tonnes	Waste - Clinical Incineration Tonnes	Waste - Recycling Tonnes
2021	9,764,598	19,414,622	194,180	120094	0	195	104
2020	9,879,667	18,983,476	193,059	121732	0	220	204
2019	9,997,093	18,081,484	409,232	120669	494	269	72
2018	10,116,621	20,627,655	592,885	83928	355	0	20
2017	9,754,370	20,120,026	480,000	133208	290	0	0

Here's an overview of just some of the projects that have enabled us to achieve these reductions in emissions.

Improved roof insulation from 50mm to 150mm

Switched to a 100% renewable electricity tariff

Installed over 2,500 solar panels

Reduced food waste from 17% to 2%

Introduced video consultations across Outpatients



Working with Partners

Central to our Green Plan is working closely with, and leveraging expertise from, our partners, suppliers, and networks.

This work includes partnerships with organisations such as Cranfield University and the Open University who have invested significantly in research to understand the most effective and efficient ways to reduce carbon emissions. As we evolve our Green Plan, we will be looking to work collaboratively with such organisations to improve our own knowledge which we can share with system partners.

Areas of Focus

As outlined in the Greener NHS guidance, we have worked with all areas of the Trust to create one holistic, joined-up Green Plan which will enable us to deliver on our ambitious vision. A workstream lead has been assigned to each area who will be responsible for managing and coordinating the department's action plan.

These areas include:



Leadership



Workforce



Sustainable Models of Care



Digital



Travel & Transport



Estates & Facilities



Medicine



Procurement



Food & Nutrition



Adaptation



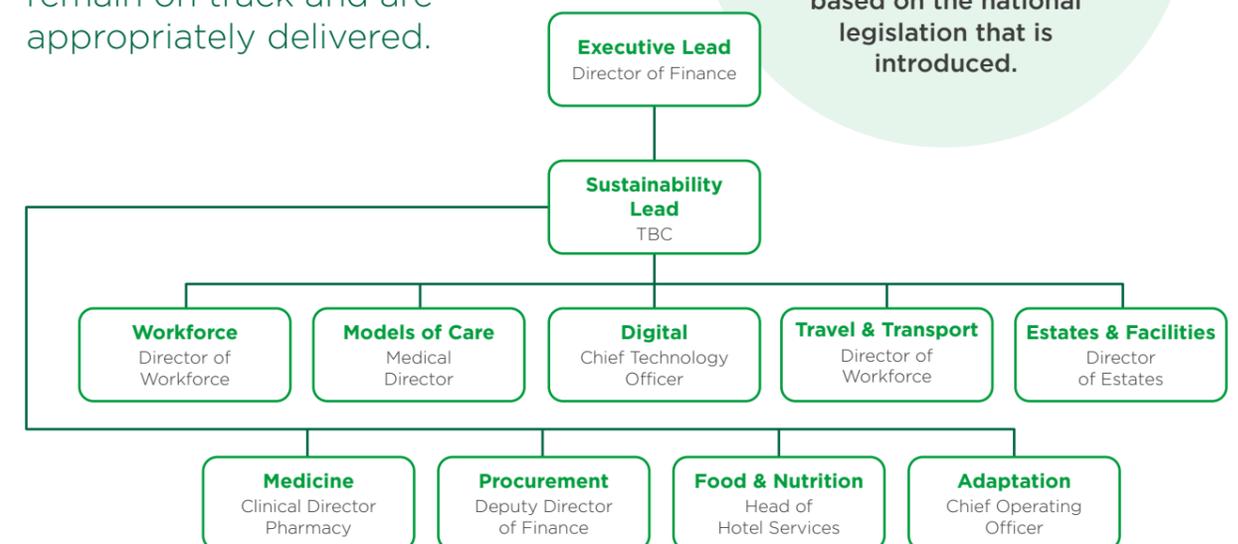
Our role as an anchor



Leadership

The Executive Lead for our #MKUHGreenerFuture plan is the Director of Finance, who will oversee the development of all sustainability plans across the organisation, ensuring that departmental actions remain on track and are appropriately delivered.

Currently the Director of Finance is supported by colleagues in Estates and Communications who are working closely with workstream leads to provide advice and guidance based on the national legislation that is introduced.



Moving forward, the Trust will consider the introduction of a dedicated Sustainability Lead, who will take ownership of the direction and delivery of the green programme and work closely with local system partners. They will co-ordinate and support the workstreams to maximise the impact of their actions and ensure that they are delivering actions for improvement.

The Sustainability Lead will share learning across workstreams and support the implementation of pilot initiatives to test and trial new ways of working.

To embed our green governance, we will:

- Introduce a sustainability board
- Report key activities and progress to the Trust Board
- Establish local workstream structures
- Annually review this strategy, ensuring progress is monitored and recorded



Workforce

✓ Where are we now:

- Move to home working / agile working model
- Significant increase in staff health and wellbeing offering, including Walk the World challenge
- Providing staff with access to green spaces and regularly encouraging staff to take a break
- Improving staff awareness and the importance of green, through utilising internal communication channels and hosting engagement events
- Encouraging staff to get involved, through sharing ideas and empowering changes
- Working with local Arts for Health charity to support the ongoing development of art both within the hospital and externally



Access to green space

➔ 12-month action plan:

Action Plan - Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Introduction of carbon training and carbon pledge in appraisal	DP	December 2022
2	Review and development of flexible estate and utilisation of space	DP	December 2022
3	Review resource available for climate anxiety and wellbeing	DP	December 2022
4	Refurbishment of all staff room areas (approx. 54) across the site, an investment of over £700k. Upgrades including new flooring, lighting and furniture to improve wellbeing	DP	April 2023



Flexible office space trial



📅 Three-year plan:

Over the next three years, we plan to...

- Develop flexible task-based accommodation to a high environmental standard
- Use as little space as necessary through effective booking systems and access to space that supports the way staff work
- Work with users to educate them on turning off lights, turning off PCs etc. and Estates on being able to reduce heating / ventilation in an intelligent way based on occupancy
- Enhance wellbeing by improving access to courtyards and green space, encouraging interaction with nature
- Develop ways of engaging with staff to ensure that they understand how they can reduce or negate their carbon footprint. This might involve more active travel
- Improve access to training for staff, improving carbon literacy and their understanding of climate change
- Evolve individual accountability for their carbon footprint, using the appraisal process to support and monitor individual impact. This could involve measuring individual carbon footprint

💬 Staff engagement:

- Working with different teams to trial flexible working arrangements
- Introducing wellbeing challenges to encourage staff to get involved
- Utilising full suite of internal communications channels to promote the latest news and initiatives (e.g. weekly newsletter, executive briefings etc)

⚠️ Risks and challenges:

- Carbon literacy (relatively low knowledge and skills)
- Climate anxiety and overwhelm



Power saving education



Sustainable Models of Care

✓ Where are we now:

The delivery of care in the NHS does not focus on the creation of healthy individuals, but on the management of their illness. While this will always remain true of the acute care setting, there are ways in which we can work to deliver a more sustainable healthcare service. This must start with minimising the requirement to bring patients to site, unless necessary.

Working with primary care, and as an anchor organisation, to ensure we are targeting the core healthcare challenges of our patient demographic is essential. Where possible, those patients should be managed in their community closer to home, or virtually from the acute setting. If a patient does need to come into the Trust, patient care should be efficient to maximise use of resources and reduce waste.

Length of stay should also be a target as each bed that we have in use increases our footprint. This will not only require efficient operating models, but also working links and communication with community and social care teams.

A summary of progress to date is as follows:

- The move to increased virtual appointments was rapidly deployed throughout the COVID-19 pandemic and virtual consultations have increased. A review of the safety and clinical efficacy is being used to determine how to move forward
- Trialled surgical pathways for complex paediatrics and patients with mental health challenges to carry out multiple care pathways in a single visit
- Introduced robotic surgery to increase theatre efficiency with potential long-term opportunity to decrease length of stay
- Undertook a review of maternity pathways to ensure we only admit patients that need hospital care
- Relocated outpatient function into the community (e.g., Whitehouse Endoscopy and Brooklands Health Centre)
- Launched a patient initiated follow-up initiative to explore ways to reduce patients unnecessarily traveling to the hospital site

Reducing length of hospital stays



Increased efficiency with robotic surgery

➔ 12-month action plan:

Action Plan – Achieving our goals by December 2022

Ref	Action	Owner(s)	Deadline
1	Develop understanding of impact of care models on carbon production	IR	December 2022
2	Identify key target areas and pilot transformation programmes in these areas to support sustainability and the clinical strategy	IR	December 2022
3	Provide more services online to enable patients to choose between face-to-face or remote appointments, ensuring digital supports a minimum of 25% remote outpatient appointments by 2022 in line with the NHS long term plan and by reducing the number of vehicles that visit our site	IR	April 2022
4	Review use of single use devices across the site and identify targets for reduction	IR	December 2022
5	Increasing the roll-out of our patient-initiated follow-up programme following a successful pilot to specialties including Gastroenterology, Cardiology, Respiratory, Neurology, ENT, Ophthalmology and Urology	IR	December 2022
6	Explore medical device remanufacturing (e.g., catheters) opportunities across consumables used in clinical service provision.	IR	December 2022
7	Working with local partners on the development of new wearable technology to monitor glucose levels for patients with diabetes, improving health of diabetic patients and reducing hospital admissions	IR	December 2022

Three-year plan:

Over the next three years, we plan to...

- Improve efficiency of care:
 - Where possible, consolidate care visits to avoid repeated visits to the site and improve patient experience
 - Improve utilisation of clinical estate: review booking systems and operational hours
 - Where clinically appropriate, developing new estate to support new ways of working and delivering our services (New Hospital Programme)
- Develop our clinical carbon footprint: understand where our care has the highest carbon cost
- Consider further community care delivery, e.g. community eye clinic
- Refurbish parts of our surgery clinical space to reduce operating costs of old air handling plant and deliver improved environmental conditions
- Develop our use of telemedicine to support earlier discharge into the community
- Improve access to patient data between the community providers and MKUH to ensure that continuity of care and reduced readmissions
- Establish new pathways for Same Day Emergency Care (SDEC) utilising our new Maple Centre facility, reducing patients being unnecessarily admitted as an in-patient, reducing readmissions, and ensuring that we deliver the right care in the most appropriate way

Staff engagement:

- Working with appropriate clinical teams in the development of off-site services
- Collaborating with theatres staff to review the undergoing refurbishment of Phase 1 theatres, ensuring good continuity of care is provided to patients

Risks and challenges:

- Operational pressures mean that culture change is challenging
- Investment in technology and resource for training
- Additional resource required to understand the impact on carbon reduction versus patient safety and outcomes



 **Surgery refurbishment**
to reduce operating costs



Development of **telemedicine** to support **earlier discharge** into the community





Digital

✓ Where are we now:

- 25% of remote outpatient appointments carried out either online or via telephone
- Creation of Building Information Modeling (BIM) foundational items such as Trust owned and cloud hosted Common Data Environment (CDE), complete with AIR/EIR documentation
- 50% of server estate now migrated to the Azure cloud
- More than 25% of colleagues have the necessary access and devices to regularly work from home

➔ 12-month action plan:

Action Plan – Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Achieve 75% migration to the Azure Cloud, further reducing the cost of hardware support and decreasing our carbon footprint	Craig York	December 2022
2	Provide more services online to enable patients to choose between face-to-face or remote appointments, ensuring digital supports a minimum of 25% remote outpatient appointments by 2022 in line with the NHS long term plan and by reducing the number of vehicles that visit our site	Craig York	March 2022
3	Model and evaluate New Hospital Programme BIM data to support the Trust's Green Plan, with data from our construction projects measuring both the embodied and operational carbon across our assets. Data will provide insights into whole life measurement of our new buildings	Craig York	September 2022
4	Introduce Internet of Things (IoT) sensor technology in pilot location to our that allow us to track in real time how our building assets are behaving, with insights supporting the Trust's Green Plan in reaching net zero carbon emissions by 2030	Craig York	September 2022

📅 Three-year plan:

Over the next three years, we plan to...

- Implement and embed Building Information Modeling (BIM) processes to support more efficient delivery of the construction of our new buildings, lowering emissions by up to 50% on our building sites
- Investigate how sensor technology can enable us to take control of our buildings and how they behave, creating opportunities for all users of our hospital to personalise the care environment and beyond
- Take a digital, cloud-first approach wherever possible
- Remove on-site data centres, therefore cloud-only (removing 2x data centres, each of which having multiple power feeds, AC, network and compute requirements)
- Use digital systems to reduce the use of paper records, printing and postage (goal of no paper generated on-site)
- Develop virtual appointments, further integrating existing tools with our Electronic Patient Record (eCARE)
- Encourage remote / agile working and practices (e.g. staff meetings, multi-disciplinary meetings)
- Make digital available to all (working with MK Council to reduce health inequalities)
- Explore app-based health sensing and ill health prevention tools

- Exploring smart hospitals which would link smart buildings to patient flow and experience
- Creating low impact ICT systems, including through a focus on circular economy (utilising re-manufactured kit and leasing over ownership)

🗨️ Staff engagement:

- Holding regular team briefings, enabling all team members to share ideas, suggestions and concerns
- Team input into the development of 2022-2026 IT strategy

⚠️ Risks and challenges:

- There are risks associated with the development of BIM processes because of the slow adoption throughout the wider construction industry. The Trust has therefore opted to take ownership of BIM on all new construction projects and host data locally in a Trust owned CDE
- Enabling more staff to work from home could have a negative effect by reducing the shared space that our workforce utilises and increase the carbon impact of heating and lighting home offices





Travel and Transport

✓ Where are we now:

- Installed 16 staff electric vehicle charging points, provided free of charge
- 62 secure cycle storage units available
- £120k spent on improving staff changing and shower facilities, with another £700k+ planned over the next 18 months
- Approximately 25% of outpatients in 2020/21 seen virtually, reducing unnecessary travel to the site
- Latest staff travel survey closed in October 2020, with almost 1,000 responses

➔ 12-month action plan:

Action Plan – Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Work in collaboration with the Council to unlock free/discounted support to promote sustainable travel	DP / PE	June 2022
2	Raise awareness of the existing and new facilities (parking, lockers, changing) by providing maps / information	DP / PE	August 2022
3	Promote the existing SmartGo Milton Keynes 10% discount on Arriva annual bus passes and the benefits of season ticket discounts	DP / PE	September 2022
4	Promotion of agile working for office-based employees to allow greater flexibility, in line with current and future HR policies.	DP / PE	October 2022
5	Introduce new EV charging infrastructure to support the transition in vehicle ownership from diesel/petrol vehicles to EVs	DP / PE	December 2022
6	Re-introduce real time bus information in the hospital's foyer area at the main entrance	DP / PE	December 2022

Around 25%
of outpatients
in 2020/21
seen virtually



62 secure
cycle storage
units

📅 Three-year plan:

Over the next three years, we plan to...

- Achieve a 10%-point decrease in the number of employees commuting alone in a vehicle to work
- Achieve a 10%-point increase in the number of people car sharing, using public transport and active modes
- Achieve a 40%-point increase in car ownership from diesel/petrol vehicles towards EVs (from a baseline of 6% EV use).
- Explore a dedicated Liftshare car share platform for the site to enable colleagues to find someone to share their commute with, who works on-site
- Work with MK Council to review the safety of the red-way network close to the MKUH campus

🗨️ Staff engagement:

- Over 1,000 staff responses to the travel survey, completed in autumn 2021. This feedback will be used to shape the 2021 - 2026 MKUH travel plan

⚠️ Risks and challenges:

- Funding
- Partner engagement

Introduce
EV charging
infrastructure





Estates and Facilities

✓ Where are we now:

- Switched to 100% renewable electricity tariff
- Installed 2,586 solar panels across the site, generating 8% of our total electricity use
- Improved roofing insulation from 50mm to 150mm in some of the oldest parts of the hospital. U values in one of the improved areas have reduced from 0.43W/m²K to 0.17W/m²K
- Zero operational waste going to landfill, ensuring waste is re-used or recycled where possible
- Taking a refurbish-first approach to our site, identifying ways we can improve our site infrastructure before building new. This includes re-using and recycling building waste
- Implemented a Building Management System (BMS) to better understand where and how we are using energy across the site so this can be optimised
- Undertaken first stage to install LED lighting in areas across the hospital site to optimise usage and reduce consumption
- Replaced estates maintenance vans with EV alternatives. Maintenance equipment to be replaced with electrically powered options
- NextBike station (20 bikes) installed outside our main entrance for use by staff and patients
- Wildflowers planted across all areas of the hospital site, totalling 2,656m² (approx. 3-4% of total site)
- Trialling the use of waterless urinals to reduce water consumption

2,586 solar panels across the site, generating **8%** of our total electricity use



➔ 12-month action plan:

Action Plan - Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Complete full implementation of LED lighting and solar panels	PE / TM	December 2022
2	Commence implementation of phase 2 heat decarbonisation strategy subject to funding streams	PE / TM	December 2022
3	Work with MK Council on district heating as primary or secondary heat source. This will also support MKC heat decarbonisation in social housing reducing health inequalities	PE	December 2022
4	Develop waste strategy throughout the trust to ensure we are minimising waste and supporting the circular economy	PE / SM	December 2022
5	Set BREEAM Outstanding as the aspiration for new build schemes	PE	December 2022



➔ Refurbish-first approach to our site ➔



Three-year plan:

Over the next three years, we plan to...

Improve Energy Efficiency and Reduce Energy Usage

- Further phases of lighting replacement for LEDs
- Further phases of energy efficiency and solar panels
- Application of learning from energy efficiency pilot (Cardiology)

Review Decarbonisation of Heating and Hot Water Systems

- Develop heat decarbonisation strategy for the site, including working with MK Council on district heating proposals
- Develop Building Management System further to reduce consumption

Waste Reduction and the Circular Economy

- Work with HR on the development of our travel plan and support infrastructure
- Develop Green Procurement Strategy
- Pre-demolition audit and waste strategy developed
- 'Green' specification for materials – e.g. marmoleum instead of vinyl for flooring

Building Design and Refurbishments

- Additional electrical infrastructure to support decarbonisation
- Refurbish first where possible
- New buildings to meet BREEAM Outstanding and design for long life
- 'Green first' case study of recent refurbishment project and application of lessons learned to future projects

- Develop alignment of net carbon zero with system partners (e.g. MK Council, BLMK ICS)
- Introduce additional electric vehicle charging facilities for staff

Wellness

- Enhance provision of green spaces. Ringfencing and protecting courtyards areas from future developments
- Ensure new green spaces are developed alongside new buildings
- Maintain relationships with community partners for looking after the garden areas, encouraging staff to get involved

Biodiversity

- Review of grass cutting procedures
- Habitat creation
- Site-wide biodiversity study to ensure net gain around planning applications
- NHS Forest / offsetting strategy

Staff engagement:

- Regular intranet and website updates
- Green Marketplace event held in August to promote green initiatives to staff
- Regular stakeholder engagement events for individual projects
- Lunchtime stands
- Launch of refreshed travel survey/plan

Risks and challenges:

- Funding
- Planning
- Measurement and ensuring these metrics align with the national targets
- Ensuring resilience for safe healthcare delivery

Protecting courtyards from future developments





Medicines

✓ Where are we now:

- **Volatile anaesthetics:** liaising with Anaesthetists and Theatre staff to achieve targets on usage
- **Nitrous Oxide:** working through medical gases committee to plan to achieve tasks and targets
- **Pressurised Meter Dose Inhalers (pMDIs):** liaising with Integrated Care System (ICS) to identify what can be achieved by MKUH in context of the ICS plan
- **Paediatric team** surveying patients to understand how we can better prescribe and dispose of inhalers. This includes improving public awareness
- **Pharmaceutical waste systems:** investigate waste streams to identify aspects amenable to change and improvement

- **Energy consumption in Pharmacy:** liaising with Estates to measure energy consumption and workplan to reduce energy consumption by lighting and computer usage
- **Plastics usage in Pharmacy practice:** identify aspects that are amenable to change

Better prescribing and disposing of inhalers

➔ 12-month action plan:

Action Plan – Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Develop area prescribing approach with Integrated Care System (ICS) around the lower emission prescribing of inhalers, education and disposal	HC	December 2022
2	Develop Anaesthetic gas monitoring, reporting and measurement at departmental level. Identify and define areas of high use to target	HC	December 2022
3	Local staff engagement initiative looking at departmental behaviours around energy consumption, waste streams and wellness	HC	December 2022

📅 Three-year plan:

Over the next three years, we plan to...

- Target areas such as the disposal of blister packaging and paediatric tablets once model of engagement have been established with the Integrated Care System (ICS)
- Develop procurement strategy around medicine, understanding carbon emissions associated with individuals' processes and procurement



Engage with staff on energy consumption, waste streams and wellness

🗨️ Staff engagement:

- Pharmacy green working group established, providing departmental engagement and input
- Working with Paediatricians on inhalers
- Liaising with Anaesthetists and Theatres staff groups
- Liaising with Estates department
- Liaising with Waste Manager
- Working with Medical Gases Committee

⚠️ Risks and challenges:

- Time available to address plans and liaising with ICS
- Staffing in Pharmacy services
- Funding for initiatives identified
- Progress of Area Prescribing Committee on inhalers
- Geographical aspects of MKUH location on border of East of England with South-East Region and possibly others

Disposal of blister packaging will be targeted





Procurement

✓ Where are we now:

- Paper across the trust has been moved to 100% recycled unbleached paper
- Liaising with suppliers, sharing ideas and best practice
- Working with internal stakeholders such as IT to adopt re-use and recycle schemes where possible
- Reviewing products to look at recycled / more sustainable options
- Working with external stakeholders, such as the NHS East of England and NHS Supply Chain (NHSSC) to look at sustainability opportunities such as refurbished medical devices

100% recycled unbleached paper used across the trust



➔ 12-month action plan:

Action Plan - Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Adopt and encourage the use of the revised NHS England and Improvement (NHSEI) Sustainable Supplier Framework	LJ / TW	December 2022
2	Adopt PPN 06/20 so that tenders include a minimum 10% net zero and social value weighting	LJ / TW	April 2022
3	Adopt the new surgical Instruments framework to improve recycling and upcycling of waste	LJ / TW	December 2022
4	Reduce the use of clinical and non-clinical single-use plastic items	SB / TW	December 2022
5	Increase the reusing or reprocessing of equipment (such as walking aids)	SB / TW	June 2022
6	Consider lower carbon alternative supplies	LJ / TW	June 2022

Tenders to include **10%+ net zero and social value weighting**



📅 Three-year plan:

Over the next three years, we plan to...

- By April 2023: Adopt PPN 06/21 so that contracts above £5m require suppliers to publish their carbon reduction plan for their direct emissions as their qualifying criteria
- By April 2024: All suppliers will be required to publish their carbon reduction plan aligned to the NHS' net zero target, regardless of the contract value
- Identify ways to better source, partner with and use local suppliers
- Invest into improving the circular economy (working with NHS Supply Chain)
- Integrate social value and net carbon zero in tender process

🗨️ Staff engagement:

- Started the process of engaging with more proactive, forward-thinking suppliers
- Engagement with the direct procurement team to increase awareness of national targets
- Giving teams the opportunity to suggest new ideas and ways of working

⚠️ Risks and challenges:

- Staffing / resourcing - Identify Sustainable Procurement Lead
- Knowledge and expertise - Train and develop procurement
- Funding - Business case to support Sustainable Procurement Lead
- Resistance to change - communicate and promote Sustainability and the reasons why





Food and Nutrition

✓ Where are we now:

- Introduction of Steamplicity, increasing patient choice and reducing waste through individual portion control (waste reduced from 17% to 2%)
- Use of Vegware containers in staff restaurant to reduce single use plastics
- Increase in vegan and vegetarian options for staff and patients
- Establishment of affordable healthy meal options for staff
- Introducing a seasonal menu which is changed twice per year (Autumn/Winter and Spring/Summer)
- Creation of new outdoor seating areas for staff

➔ 12-month action plan:

Action Plan – Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Introduce patient electronic meal ordering across all in-patient wards following a trial period	FF	September 2022
2	Identify local suppliers for meat and dairy. Fruit & veg supplier underway in Bedford	FF	June 2022
3	Achieve Soil Association bronze award for staff restaurant	FF	August 2022
4	Establish a process for recycling of all Steamplicity packaging. To undertake pilot with supplier in Q1 2022	SH / FF	December 2022
5	Move from Cook-Chill bulk food re-generation patient food service system to steamed plated meals (cooked /steamed by microwave). Ascertain energy savings	SH	March 2022
6	Food waste reduction through partnering with the Guardians of Grub initiative. Introduce a food waste reduction programme	FF	March 2022

📅 Three-year plan:

Over the next three years, we plan to...

- Achieve Soil Association Gold Award for staff restaurant
- Continue reviews of electronic meal ordering solution, including options for staff to place orders remotely
- Improve recycling rates and further reduce total food waste
- Develop team members knowledge and skills with using plant-based ingredients

💬 Staff engagement:

- Ongoing communication across the Cook Chill team to generate new ideas
- Liaising closely with Waste Management and Domestics
- Cook Chill Supervisor undertaking WRAP Guardians of Grub training

⚠️ Risks and challenges:

- Funding
- Resourcing
- Supplier availability





Adaptation

✓ Where are we now:

- As part of adaptation process through the Emergency Preparedness, Resilience and Response (EPRR) framework and Civil Contingencies Act (2004), MKUH has a set of response planning arrangements in place to mitigate against severe weather known as Heatwave and Cold Weather Plans
- These plans are aligned to national planning assumptions, recommendations, and Met Office triggers. This is further supported through Local Resilience Forum plans that cover wider spread flooding and Estates' business continuity arrangements in responding to such environmental events

Local Resilience Forum plans that cover wider spread flooding



➔ 12-month action plan:

Action Plan – Achieving our goals by December 2022			
Ref	Action	Owner(s)	Deadline
1	Conduct an adaptation risk assessment and action plan	EPRR / Estates	December 2022
2	To develop and adaptation plan that is aligned to the Trust Green Plan	EPO	December 2022
3	To develop a Trust Environmental Sustainability Manager to support Adaptation and Green Plan implementation and oversight	EPO	December 2022



Severe weather plans are shared with all staff



📅 Three-year plan:

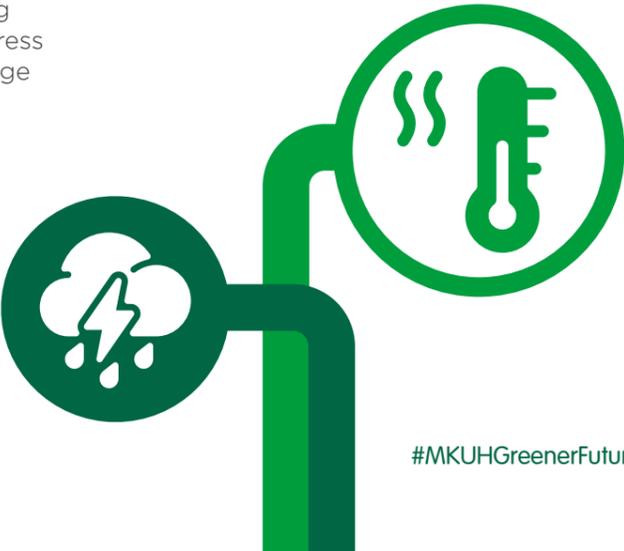
- In helping MKUH meet its set target of net zero, but maintain adaptation, the following points need to be considered, taken from best practice shared by NHS England and Improvement (NHSEI) adaptation team:
 - To conduct an adaptation risk assessment and action plan
 - To develop an adaptation plan aligned to the Trust Green Plan
 - Development of a Trust's Environmental Sustainability Manager to support the measures required in maintaining overview, implementation, and progress of the Trust's covering Climate Change Adaption Plan as part of the Trust's Green Plan

🗨️ Staff engagement:

- Severe weather plans are shared with all staff and held on intranet/Trust documentation page

⚠️ Risks and challenges:

- Response to climate change and the unknown scope of extreme climate related events creates the biggest risk in this area





Our role as an Anchor Institution

As defined by [The King's Fund](#), the term 'anchor institutions' is used to describe large organisations, connected to their local area, that use their assets and resources to benefit the communities around them.

As one of the largest employers in Milton Keynes, and as an organisation that is responsible for supporting the health and wellbeing of our local community, we take our role as an anchor seriously. With evidence clearly demonstrating the negative association between the rise of climate change and the impacts on human health, it is important that our #MKUHGreenerFuture plan aims to use our influence and resources to improve the social determinants of health, health outcomes and reduce health inequalities.

We take a collaborative approach to everything that we do, and the development of our Green Plan will maximise these relationships, ensuring that we deliver a healthier, greener, and more sustainable Milton Keynes. These key partnerships include:

- Milton Keynes Council
- Bedfordshire, Luton and Milton Keynes (BLMK) Integrated Care System (ICS)
- Ramsay Health Care
- Circle Health Group
- NHS England and Improvement
- Greener NHS
- Public Health England
- Department for Health and Social Care
- Suppliers (e.g., Tradebe, Cawleys)
- Open University
- Cranfield University
- Morgan Sindall



Working with partners will enable us to **learn from others, share best practice and develop collaborative solutions** for the benefit of our local population



Communication and Engagement

It is imperative that our #MKUHGreenerFuture plan is co-created by all impacted stakeholder groups and as such, engagement with all of these groups is crucial.

A key part of this will be the establishment of a 'Green Committee', open to individuals both inside and outside the organisation to support the development of our green plan. We will further create 'Green Champions' – staff members across the organisation who will celebrate and drive green practices within their areas.

We have already started the process of engaging with individuals and organisations, as outlined below:

Staff:

- High-level workshops with workstream leads
- Green Marketplace event, showcasing some of the great sustainability projects ongoing
- Staff survey, asking for suggestions and ideas (over 50 new ideas shared)
- Creation of a Teams channel for those interested in sustainability
- Engaging with MK Hospital Charity to involve them in our plans (and who are well connected in the local community)

Patients and the public:

- Regular updates on our social channels and website
- Attendance at Green Live event in Centre:MK in October 2021, with over 1,000 visitors across two days
- Details shared at our Annual Member' Meeting
- Development of a Greener NHS case study, raising awareness of a solar panel programme
- Creation of a 'Green' newsletter, due to be published monthly from April 2022 onwards
- Development of communication of tangible impact of behaviours on carbon emissions.

Next Steps

We have already taken significant first steps as an organisation to switch to more sustainable ways of working and the delivery of our services.

We know that there is still much to do.

As set-out in this plan, we have identified the way forward, and will build momentum across the organisation via our three-year action plans.

We will provide oversight and leadership to our green agenda by embedding this into our core business, starting with the formal adoption of our #MKUHGreenerFuture plan.



50+ new ideas shared in Staff Survey



Updates shared on our social channels





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