



The Newcastle upon Tyne Hospitals
NHS Foundation Trust



Shine

Sustainable Healthcare in Newcastle

Towards Net Zero

**Sustainable Healthcare
in Newcastle (Shine)
Annual Report 2022-23**



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1. Foreword

Last year's Shine Report was titled the 'Red Flag Report', because despite many staff-led improvements, we continued to see our carbon footprint at Newcastle Hospitals increase. This year, we are still very worried about the speed of change BUT there are reasons to be hopeful.

I'm pleased to confirm that we have reduced our controllable carbon emissions and we are hopeful that last year's increase, fuelled by our pandemic response, will have been our peak for those emissions.

In this year's report we want to paint a different picture and think about a very different vision for 2040.

If we are successful in achieving our vision, when you walk around Newcastle Hospitals in 2040 you will be in a modern and efficient health service, delivered at hospital sites which are powered by clean technologies. We will have transitioned our existing

But the most remarkable change of all is that in this version of 2040 ill health associated with air pollution, currently the fourth largest killer in the UK, has reduced

estate away from old-fashioned, expensive, and unhealthy fossil fuels, and our new buildings will have been cleverly designed with planetary health as a priority – delivering **ZERO CARBON CARE**.

Internal spaces will be comfortable, light and airy. Externally these buildings will be surrounded by flourishing, biodiverse green spaces which are accessible to patients, visitors, staff and the local community.

In these spaces nature will be allowed to thrive, patients' recovery will be enhanced, visitors will be able to take a moment for themselves, and staff will rest and replenish their energy reserves.

As we deliver our services in this version of the future, we always champion re-use over single-use and carefully consider the earth's resources – achieving our goal of **ZERO WASTE**.

People will naturally work with planetary health, as well as patient health, in mind. Care pathways are thought through to conserve resources in a more 'circular' economy supported by efficient

digital healthcare which benefits patient and planet. Our policies and procedures across the organisation support everyone to effortlessly do the right thing. Nourishing, healthy, low-carbon food is provided as standard.

By 2040, NHS suppliers have had 10 years experience of demonstrating their progress to Net Zero, aligned with Greener NHS targets. Here at Newcastle Hospitals, our suppliers have led the way by aligning their carbon reduction plans five years ahead of the NHS target. Now we are confident that the money we spend on critical supplies and services goes to organisations that have demonstrated significant reductions in their greenhouse gas emissions.

As our wider society has also continued its transition to Net Zero, more people are making their journeys to us using public transport, cycling and walking. The use of cycling and zero tailpipe emission vehicles for the delivery of our care services has completely replaced the use of polluting fossil fuel vehicles. Children can't believe the stories they hear from grown-ups

If we are successful in achieving our vision, when you walk around Newcastle Hospitals in 2040 you will be in a modern and efficient health service, delivered at hospital sites which are powered by clean technologies

about how our neighbourhoods and streets were previously dominated by life-limiting 'pollution cars'.

This, along with the fact that all deliveries to our sites can only be made by zero emission vehicles, has resulted in **CLEAN AIR** and a healthier environment for anyone accessing our facilities, or living or working locally.

But the most remarkable change of all is that in this version of 2040 ill

health associated with air pollution, currently the fourth largest killer in the UK, has reduced. Impacting positively on the most vulnerable members of society – including children and older people.

If we dare to extend our vision even further and imagine a world that has achieved this extraordinary feat, we will be able to see a planet which has avoided the worst effects of climate breakdown and adapted well to the unavoidable changes in our climate. This means a healthier global population, a reduced risk of pandemics, famine and drought, and a reduced risk of displacement from conflict related to resource scarcity, or areas becoming uninhabitable due to sea level rises and desertification.

We have a set of shared values here at Newcastle, and I have taken a moment to expand on each of these:

We care and are kind – to our people and planet

We have high standards – and sustainability is critical to delivering high quality care

We are inclusive – everyone plays a role

We are innovative – in our approach to achieving net zero carbon, clean air and zero waste

We are proud – of the position we have taken on the climate and health emergency

Of course, here in 2023 this is simply a vision, but a vision I'm certain we can all get behind. We are on the first steps of the journey towards Net Zero and it is going to be a challenging journey. If we work together and act now, I truly believe we can make this a reality.

Dame Jackie Daniel
Chief Executive



2. Introduction

As a result of the findings in last year's Red Flag Report a mandate was given to the Executive Oversight Group (EOG) for Climate Emergency to address these concerns with renewed urgency.

As Chair of that group, and Executive Lead for Climate Emergency I am grateful to the many stakeholders that provided input to that report. A number of key themes were identified, and these requirements, we believe, are so important that without addressing them it will be impossible for us to reach Net Zero and stay within our carbon budget.

1. Dedicated resource to drive urgent change
2. Sustainability considerations in all decision making
3. Significantly increased investment in estate decarbonisation
4. Leadership to signal that action on the Climate Emergency is a Trust priority
5. Action to eliminate waste and wastefulness of resources – moving towards zero waste

These priorities have allowed the EOG to focus attention on the key areas which will drive the

transformation of the organisation towards Net Zero, and I am pleased to be able to tell you about some progress we have made.

Within Estates there is an exciting plan to recruit a dedicated Net Zero Engineering team, who will be able to drive the transition from fossil fuels to renewable energy. There are also two Clinical Sustainability Fellows

We have titled this year's report 'Towards Net Zero' as we aim to set out our journey to Net Zero, and present you with the potential interventions that we believe could get us to that goal

which have been appointed through the Newcastle Hospitals Charity who have been making exciting changes happen in their areas of expertise.

In order to integrate sustainability into decision making a Climate Emergency Charter is being drafted, and a 10-step framework for Departments and Directorates has been rolled out to early adopters.

Aligned to that, and to help demonstrate commitment to sustainability at a leadership level there are plans to present at the Board Development Day in partnership with IEMA (Institute for Environmental Management and Assessment) to ensure responsibilities at Director level are well understood. There have also been regular inclusions in Dame Jackie's blog and other Trust-wide communications throughout the year.

As well as the above some really exciting partnership working has been developing with NHS Supply Chain to begin to address common

In order to integrate sustainability into decision making a Climate Emergency Charter is being drafted, and a 10-step framework for Departments and Directorates has been rolled out to early adopters

issues and start working towards operating a more circular economy approach to resources.

There is still lots of progress to be made and in some areas, such as the need to significantly increase investment in estate decarbonisation, we have not been able to make much progress. However we were excited to find out we had been successful in our application for the Public Sector Decarbonisation Scheme to transition away from fossil fuels at our Regent Point office site.

We still consider the five priorities to be the key areas for action, and we recently highlighted the lack of dedicated capacity, and lack of

dedicated finance as risks to achieving the goals and targets of the Climate Emergency Strategy to our People Committee¹.

Despite these ups and downs, and against a turbulent backdrop of many challenges the NHS is currently facing, we are encouraged by being able to report a small reduction in the carbon footprint related to the emissions within our direct control.

We have titled this year's report 'Towards Net Zero' as we aim to set out our journey to Net Zero, and present you with the potential interventions that we believe could get us to that goal.

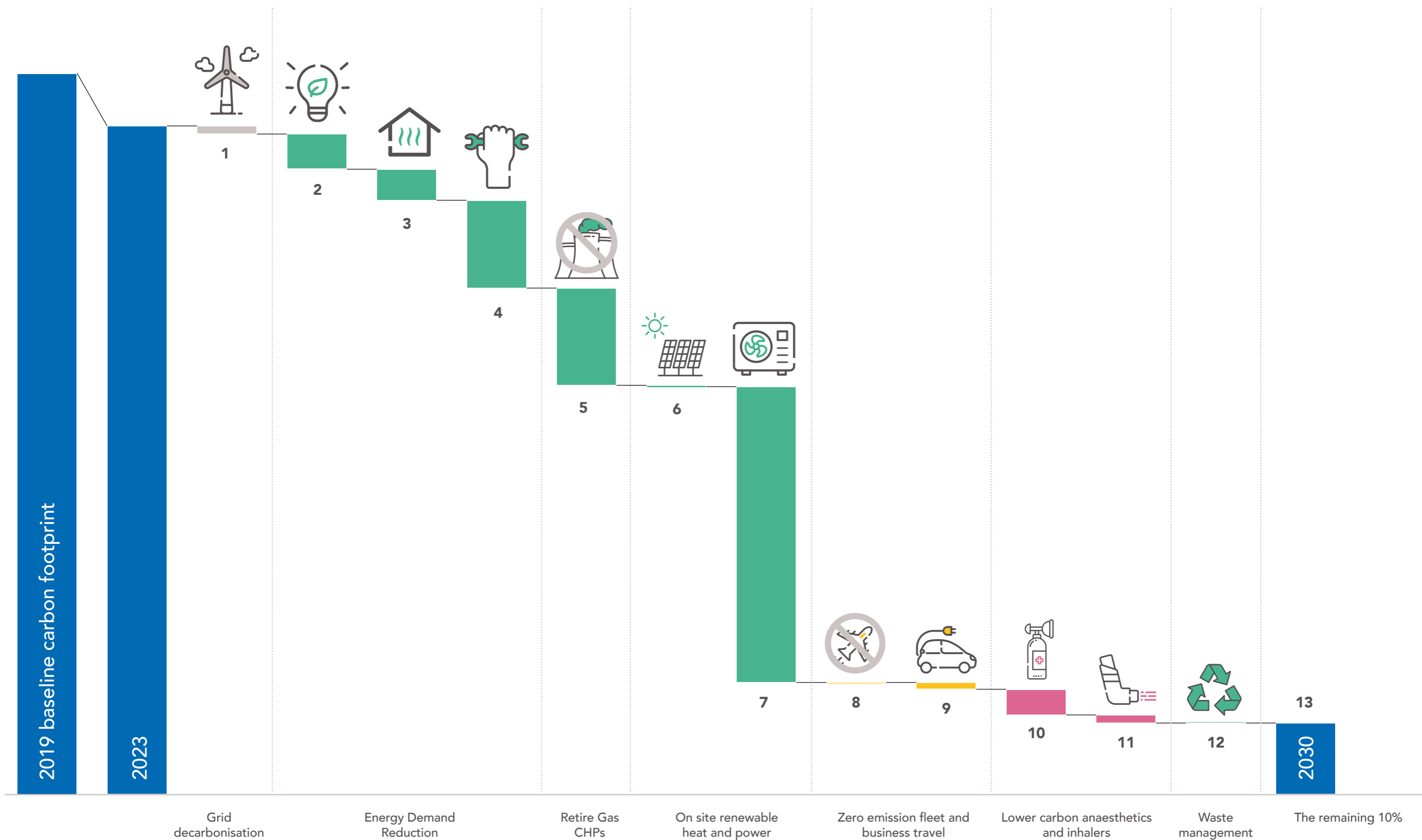
As well as the overall picture of performance, the report will highlight achievements made this year in each of the key themes, as well as our plans for next year.

Throughout the report we will direct you to more information being held online, at our web pages <https://www.flourishatnewcastlehospitals.co.uk/flourish-key-themes/sustainable-healthcare/> where you will find detailed case studies and more detailed information on the progress that has been made in key areas over the year.














Victoria McFarlane Reid
Executive Director Lead for Sustainability

¹ People Committee - feeds directly into the Trust Board and sits above the Sustainable Healthcare Committee in the governance hierarchy.

What could the journey to Net Zero by 2030, for our controllable emissions, look like?



Explaining our journey to Net Zero

| | | |
|----|---|---|
| 1 |  | The continuing decarbonisation of grid electricity |
| 2 |  | Improvements to lighting and controls, including LED lighting and improvements to the building management system (BMS) |
| 3 |  | Upgrades to building fabric to improve energy efficiency, for example insulation and improved glazing |
| 4 |  | Engineering upgrades, for example upgrades to air handling units to increase energy optimisation |
| 5 |  | Disconnect Combined Heat and Power (CHP) and switch to grid electricity and/or zero carbon power purchase agreements |
| 6 |  | Install solar photovoltaic panels (PV) on available roof space and car park car ports |
| 7 |  | Install heat pumps and link in with city low carbon district heat network |
| 8 |  | Eliminate unnecessary travel by air e.g. flights within the UK |
| 9 |  | Replace petrol and diesel vehicles used in delivery of care with zero tailpipe emission vehicles e.g. through electric pool cars and bikes |
| 10 |  | Transition to lower carbon anaesthetics, eliminate desflurane and increase the use of anaesthetic gas capture and destruction technology |
| 11 |  | Transition to lower carbon Dry Powder Inhalers (DPI) and optimise inhaler use |
| 12 |  | Continue to improve waste management to decrease the amount of waste incinerated at high temperatures |
| 13 |  | For us to achieve Net Zero Carbon we must reduce our carbon emissions to a maximum of 10% of the 2019 baseline. We anticipate that this remaining 10% will be from the following sources in order of significance: building energy, inhalers, anaesthetic gases, rail and flights, refrigerant gases, and waste |

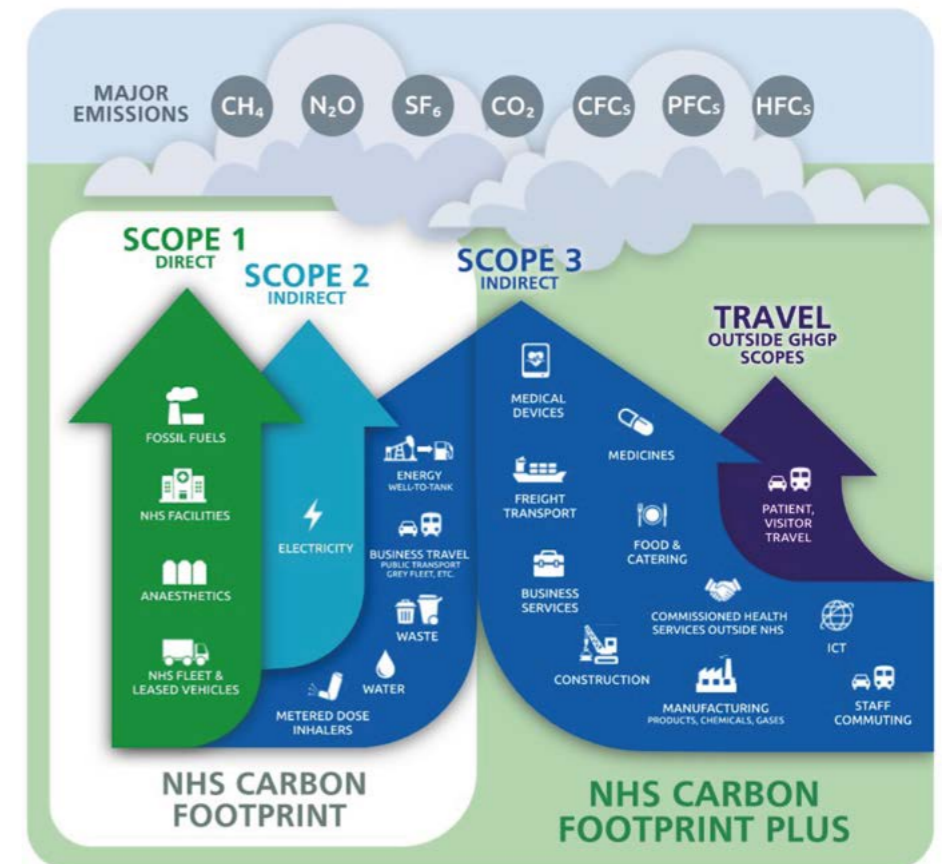


3. Explaining Our Goals

In 2019 we were the first healthcare organisation in the world to declare a climate and health emergency and in 2020 we published our Climate Emergency Strategy for 2020-2025. The strategy is available on the Trust website (bit.ly/CEStrategy_NUTH) and sets out the plans we've developed, across all eight Shine themes, towards three long term goals.

Three years on from the publication of that strategy we are now in a position to be able to add clarity to those statements and explain in more detail exactly what we intend to achieve by 2030, and 2040.

We are mirroring the Greener NHS definitions of 'carbon footprint' and 'carbon footprint plus' which were published in their Delivering a Net Zero NHS Strategy. The sources of carbon included under those definitions are shown in the diagram. In addition, we have also continued to calculate and present our carbon performance in line with the global best practice framework of the Greenhouse Gas Protocol.



1. Zero Carbon Care

| | |
|---|--|
| <ul style="list-style-type: none"> By 2030 the emissions we control will be net zero – our 'Newcastle Hospitals Carbon Footprint'² | <p>This means we will reduce the controllable carbon emissions caused by the delivery of our service as much as possible, and offset the remainder – which will be a maximum of 10% against a 2019 baseline year</p> <p>We are also committed to staying within our total carbon budget – see opposite.</p> |
| <ul style="list-style-type: none"> By 2040 the emissions we can influence will be net zero – our 'Newcastle Hospitals Carbon Footprint Plus'³ | <p>This means we will reduce the influenceable carbon emissions associated with the delivery of our service as much as possible, and offset the remainder – which will be a maximum of 10% against a 2019 baseline year. This includes the requirement for all suppliers to have also reached Net Zero for their organisational performance by 2040.</p> |

2. Clean Air

| | |
|--|--|
| <ul style="list-style-type: none"> By 2030 our operational transport activities generate no harmful air pollution | <p>This means that 100% of the transport directly related to our activities will be completed by zero tailpipe emissions modes of travel.</p> |
| <ul style="list-style-type: none"> By 2040 our healthcare facilities are accessed by only zero emission travel | <p>This means that, with the exception of the helicopter, only zero emission modes of travel will be able to access our healthcare facilities.</p> |

3. Zero Waste

| | |
|--|---|
| <ul style="list-style-type: none"> By 2030 we will reuse and repair everything that can be reused and repaired | <p>This means that we will maximise the use of all existing re-use and repair routes and where possible increase the capacity of these to meet service demands.</p> <p>Simultaneously we will transition away from single-use where credible alternatives exist.</p> |
| <ul style="list-style-type: none"> By 2040 we will produce no waste. We will manage resources within the circular economy, with items surplus to requirements becoming a resource in another part of the system | <p>This means that we will focus on waste prevention measures and increase to 100% the amount of waste that is either reused, recycled or, as a last resort, sent to an energy from waste facility.</p> <p>No waste will be sent to landfill or incineration without energy recovery.⁴</p> |

² As per definition of NHS Carbon Footprint published in Delivering a Net Zero NHS Strategy.

³ As per definition of NHS Carbon Footprint Plus published in Delivering a Net Zero NHS Strategy.

⁴ Current legislation requires certain waste types (such as cytotoxic and anatomical waste) to be treated in permitted facilities which do not have energy recovery.

Why have we set these goals?

Climate change is the greatest global health threat facing the world in the 21st century. Scientists agree that global warming should be capped at 1.5°C – a threshold which has been set to avoid the worst impacts of climate change⁵.

It is now more likely than not that the world will overshoot this global temperature increase at least once by 2027⁶.

Dr Chris Jones a Met Office climate science fellow and a lead author of IPCC's AR6 [synthesis](#) report⁷ said:

"We know that climate change is already happening, and the world has already witnessed extreme events associated with the relatively modest warming we have seen so far. In fact, the world now is the coolest it is going to be, at least for many decades."

Prof. Petteri Taalas, the secretary general of the World Meteorological Organization (WMO), said:

"This report does not mean that we will permanently exceed the 1.5°C specified in the Paris agreement, which refers to long-term warming over many years. However, WMO is sounding the alarm that we will breach the 1.5°C level on a temporary basis with increasing frequency."

It is still possible to meet the goal of keeping global warming under 1.5°C and our goals are designed with this in mind.

In our Climate Emergency Strategy we stated that we have incorporated the principle of carbon budgets into our plans, calculating a limit on how much carbon dioxide we can emit over the rest of the century, with the emphasis on immediate action.

Climate change is the greatest global health threat facing the world in the 21st century

HOW MUCH OF OUR CARBON BUDGET HAVE WE USED?

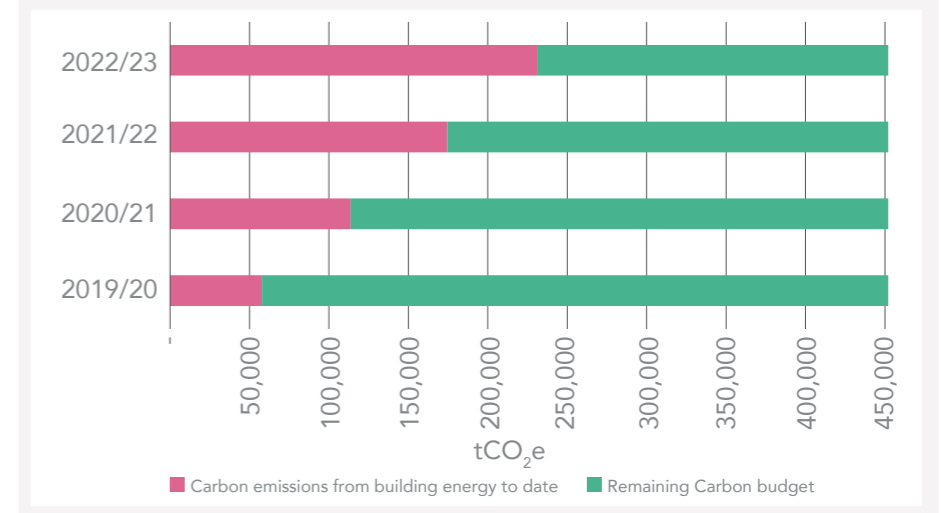
The Tyndall Centre for Climate Change Research uses the principles of science and equity that are aligned with the commitments in the United Nations Paris Agreement to set budgets at national and sub-national levels, providing local authorities with recommendations that translate the 'well below 2°C and pursuing 1.5°C' global temperature target.

We took that method and applied it at our organisational level for Newcastle Hospitals to calculate our own carbon budget – giving us the

absolute total amount of carbon dioxide we can emit – 450,000 tCO₂e.

As has been reported previously, we have not achieved a sufficient reduction for the last two years. This means the level of action required to stay within the carbon budget is now even greater, otherwise we are at risk of exceeding our total budget.

We have already emitted 231,450 tCO₂e out of our total carbon budget for building energy. If we continue at the current rate we will exceed the budget in under 4 years.



⁵ Intergovernmental Panel on Climate Change (IPCC)'s Special Report – Global Warming of 1.5°C <https://www.ipcc.ch/sr15/chapter/spm/>

⁶ <https://public.wmo.int/en/media/press-release/global-temperatures-set-reach-new-records-next-five-years>

⁷ Intergovernmental Panel on Climate Change (IPCC)'s AR6 Synthesis Report - <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>

4. Overall Performance

In our Climate Emergency Strategy we set out three long term goals, and the actions we planned to take by 2025 for the eight Shine themes.

This is an overall summary of how we are progressing towards those goals, and the published actions. More detailed progress reports are included for each area later in this report, and regular progress reports are published on <https://www.flourishatnewcastlehospitals.co.uk/flourish-key-themes/sustainable-healthcare/> throughout the year.



KEY



Red

Not on track and at serious risk of not being achieved



Amber

Not on track but still achievable by 2030









Green

On track to be achieved by 2030

| GOAL | RAG RATING | DESCRIPTION |
|-------------------------|------------|--|
| Zero Carbon Care | | By 2030 the emissions we control will be net zero – our 'Newcastle Hospitals Carbon Footprint' |
| Clean Air | | By 2030 our operational transport activities generate no harmful air pollution |
| Zero Waste | | By 2030 we will reuse and repair everything that can be reused and repaired |

| SHINE THEME | RAG RATING | Actions published in our Climate Emergency Strategy to be achieved by 2025 |
|---------------------------------|------------|---|
| Energy & Water | | <ul style="list-style-type: none"> Improve energy, water and carbon data availability, analysis and reporting Assess our buildings, and supporting infrastructure, for opportunities to increase energy and water efficiency Increase investment in energy decarbonisation and water efficiency projects, seeking funding from a variety of internal and external sources Strategically review how low and zero carbon energy sources can replace our existing fossil fuel energy infrastructure and start implementing priority phases of work Increase energy and water awareness and carbon literacy of staff Collaborate with delivery partners and anchor institutions across the city to accelerate energy decarbonisation Develop and maintain supporting management systems, with strong governance for ongoing energy decarbonisation Research and investigate innovative carbon offsetting, or insetting, options for our residual carbon emissions |
| Buildings & Land | | <ul style="list-style-type: none"> Achieve Passivhaus Standard and BREEAM Outstanding for the two new hospital buildings proposed for the RVI site Deliver sustainability training for our Capital Projects staff to enhance sustainability knowledge and carbon literacy Develop a sustainability policy and design criteria for new builds and refurbishments Produce a biodiversity action plan for our whole estate, maximising opportunities for green space creation and enhancing the biodiversity of existing green space Create an edible wellbeing garden at Freeman Hospital for staff and patients Collaborate with local experts to establish a biodiversity metric to track progress Include the need for climate change adaptation and resilience in planning our green spaces Support green social prescribing, Trust Green Gym and green space expansion via 'Nature Connect - Newcastle Hospitals' |
| Procurement | | <ul style="list-style-type: none"> Proactively engage with suppliers to support their transition to decarbonised services Standardise sustainability criteria for suppliers Introduce a requirement within contracts for key suppliers to commit to take action on the climate emergency Increase carbon literacy and sustainable procurement awareness in our Procurement Team Collaborate and engage with industry, research centres of excellence and other key partners to develop solutions for low carbon services Collaborate with external experts to improve the accuracy of our supply chain carbon emissions data and focus action on carbon hotspots Achieve Silver Food for Life Award for our in-house catering services |

| SHINE THEME | RAG RATING | Actions published in our Climate Emergency Strategy to be achieved by 2025 |
|--|---|---|
| Models of Care  |  | <ul style="list-style-type: none"> • Collaborate and engage with industry, research centres of excellence and other key partners to lower the carbon of our care pathways • Trial use of innovative technologies to capture and destroy environmentally damaging anaesthetic gases • Bring together expertise externally and internally to understand and reduce the impact of inhalers on our carbon footprint • Embed sustainability (SusQI) within our Improvement Faculty processes • Develop and implement training, tools and resources to enable clinicians to improve the sustainability of their models of care • Work with service leads and Business Continuity colleagues to ensure our patients continue to receive outstanding care in the face of a changing climate • Ensure business development and investment decisions undertake a formal Sustainability Impact Appraisal (SIA) |
| People  |  | <ul style="list-style-type: none"> • Include climate emergency and Shine references in job descriptions, recruitment adverts and professional leadership behaviours • Review Trust policies for their sustainability impact and compatibility with the climate emergency • Carry out a programme of Climate Emergency engagement and communications • Deliver sustainability training to all new starters at induction • Deliver an advanced training programme for Sustainability Ambassadors • Launch a Shine Rewards scheme to encourage sustainable staff behaviours • Launch a Climate Emergency Action Fund to help kick start staff sustainability projects • Engage with local, regional and national networks to learn, share and extend climate emergency action beyond our boundaries |
| Journeys  |  | <ul style="list-style-type: none"> • Become a Clean Air Hospital - rated Excellent on the Clean Air Hospital Framework by 2025 • Continue to expand our fleet of electric vehicles and bicycles whilst increasing access to electric charging points • Work with our business and staff lease car provider to ensure only low and zero emission vehicles are available for our staff • Work with our civic partners to reduce the impact of vehicular traffic on our air quality, promoting active travel and the use of public transport to achieve this • Seek to establish an off-site consolidation centre, coupled with zero emission deliveries, to reduce the need for fossil-fuelled vehicle deliveries to our sites • Increase access to the Trust's cycle-to-work scheme and discounted public transport passes • Improve facilities to encourage more staff to actively travel to work • Provide information to patients and visitors on active and sustainable travel options available to those accessing our sites • Continue to lead on the digital healthcare transition through our Digital Exemplar Strategy, positively transforming our delivery of care |

| SHINE THEME | RAG RATING | Actions published in our Climate Emergency Strategy to be achieved by 2025 |
|---|---|--|
| Waste  |  | <ul style="list-style-type: none"> • Deliver waste reduction projects focusing on single-use plastics, food and consumables with the aim of a 20% reduction in these waste categories • Rollout a Trustwide furniture and equipment reuse system • Develop the metrics required to report on existing cleaning, repairing, reusing and refurbishment systems • Explore and implement further repair and reuse initiatives • Expand our food waste recycling segregation across our hospital sites • Investigate and implement innovative treatment solutions for our clinical and non-clinical waste |



4.1 Carbon Footprint

This year we are encouraged to be able to report a small decrease in our Newcastle Hospitals carbon footprint. There has been a 7% reduction in the carbon footprint compared to both the previous year, and the baseline year.

This is mainly due to reductions in energy consumption, and changes to anaesthetic gas use, including banning the use of desflurane in almost all cases, and the introduction of new technology to capture and destroy Entonox. These interventions are explained further later in the report.

| Category | Sub-category | Total tCO ₂ e | | | | % change from previous year | % change from baseline year |
|--|--|--------------------------|----------------|----------------|----------------|-----------------------------|-----------------------------|
| | | 2019-20 | 2020-21 | 2021-22 | 2022-23 | | |
| Newcastle Hospitals carbon footprint | Scope 1 | | | | | | |
| | Building energy – fossil fuels | 54,858 | 53,901 | 55,626 | 52,742 | -5 | -4 |
| | Refrigerant gases | 477 | 246 | 246 | 246 | 0 | -48 |
| | Anaesthetic gases | 4,336 | 3,345 | 3,360 | 2,381 | -29 | -45 |
| | Trust fleet | 112 | 42 | 25 | 12 | -52 | -89 |
| | Scope 2 | | | | | | |
| | Building energy - purchased electricity ⁴ | 4,933 | 4,924 | 6,394 | 4,943 | -23 | 0 |
| | Scope 3 | | | | | | |
| | Water | 441 | 454 | 229 | 204 | -11 | -54 |
| | Waste ⁸ | 105 | 99 | 113 | 518 | 359 | 396 |
| Inhalers | 1,399 | 903 | 1,331 | 1,341 | 1 | -4 | |
| Business Travel | 1,278 | 724 | 657 | 1,015 | 54 | -21 | |
| Newcastle Hospitals Carbon Footprint Total | | 67,939 | 64,638 | 67,980 | 63,401 | -7 | -7 |
| Medicines, medical equipment and other supply chain | Medicines and chemicals | 67,952 | 75,126 | 108,614 | 73,272 | -33 | 8 |
| | Other supply chain | 39,094 | 56,380 | 51,466 | 42,158 | -18 | 8 |
| | Medical equipment | 42,415 | 39,204 | 44,526 | 40,577 | -9 | -4 |
| | Procurement total | 149,462 | 170,710 | 204,606 | 156,007 | -24 | 4 |
| Personal travel | Staff commute | 14,863 | 13,089 | 10,338 | 11,601 | 12 | -22 |
| | Outside GHGP scope | | | | | | |
| | Patient and visitor travel | 24,127 | 16,520 | 22,264 | 19,231 | -14 | -20 |
| Newcastle Hospitals Carbon Footprint Plus Total | | 256,391 | 264,957 | 305,189 | 250,230 | -18 | -2 |
| Patient numbers | | 1,788,469 | 14,432,307 | 1,837,107 | 1,819,965 | 28 | 2 |
| Carbon intensity (tCO₂e per patient contact) | | 0.143 | 0.185 | 0.166 | 0.137 | -10 | -4 |

Table 1: Breakdown of Total Newcastle Hospitals Carbon Footprint

⁸ An increase in the carbon footprint of waste is due to updated carbon factors being applied: Chantelle Rizan, Mahmood F. Bhutta, Malcolm Reed, Rob Lillywhite, 'The carbon footprint of waste streams in a UK hospital', 2021, (also available in the NHS waste carbon reduction tool).

NEWCASTLE HOSPITALS CARBON FOOTPRINT

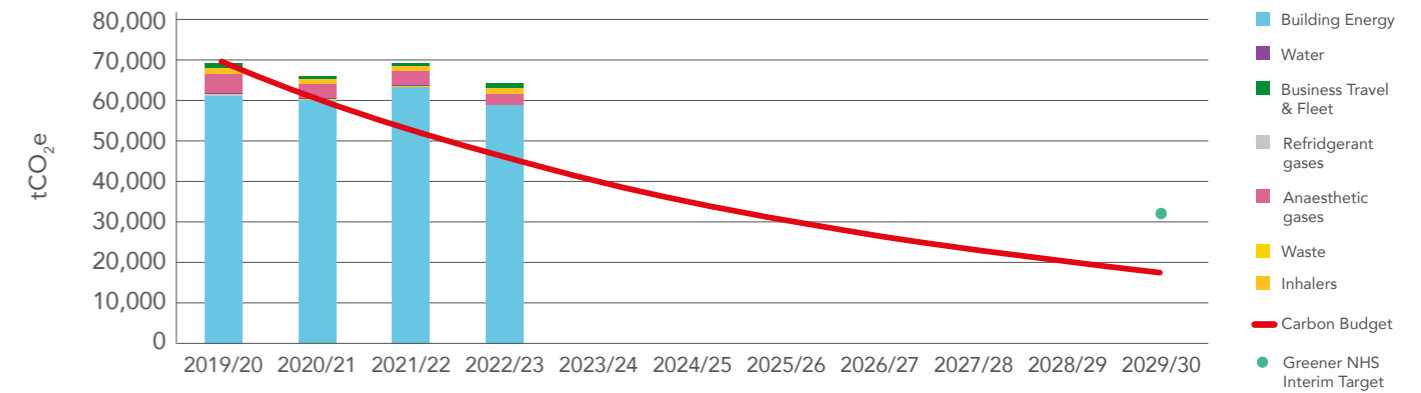


Figure 1: Newcastle Hospitals Carbon Footprint

NEWCASTLE HOSPITALS CARBON FOOTPRINT PLUS

We are also able to report a small decrease in the carbon footprint plus.

Although we are adopting a new methodology to calculate and report the carbon emissions related to the products and services we buy, at this point the majority of the carbon footprint is still calculated using a spend-based methodology. Therefore the reduction in carbon footprint is mainly due to a reduction in expenditure this year.

We have also used inflation adjusted carbon factors this year, and re-calculated each year back to our baseline to present a more accurate picture. Click [here](#) for further detail.

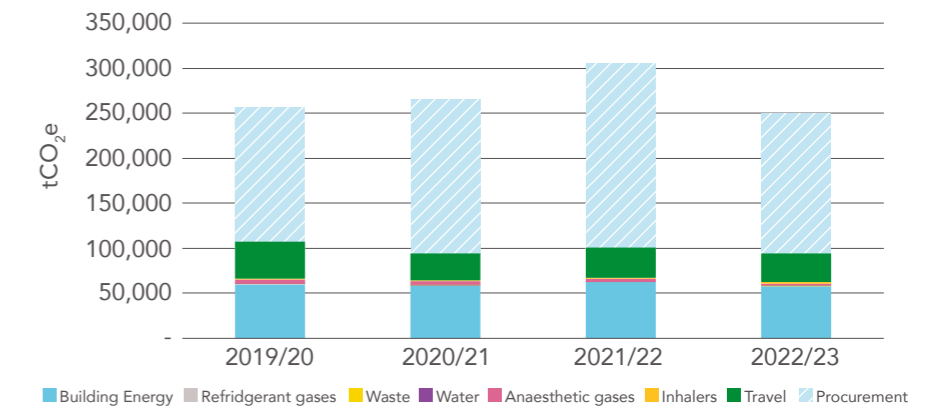
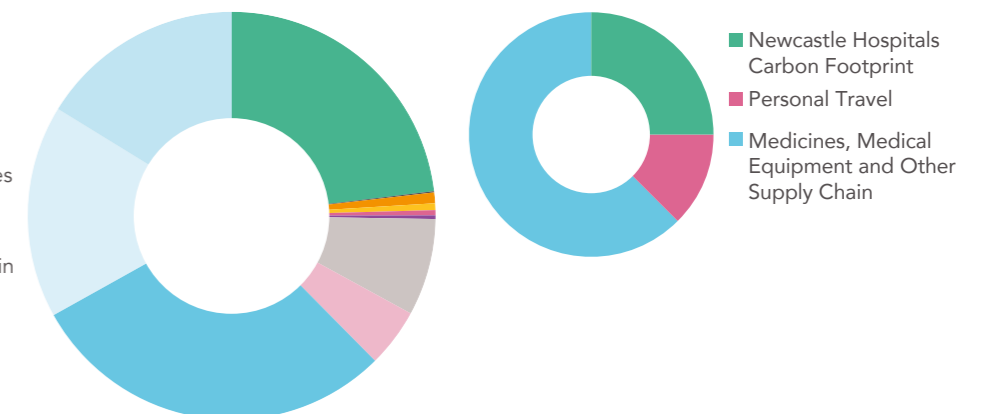
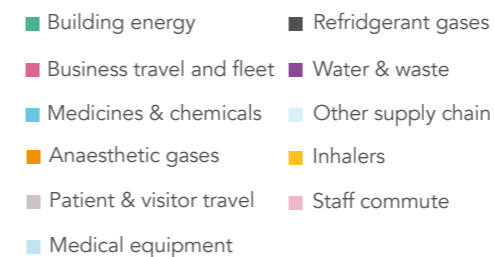


Figure 2: Newcastle Hospitals Carbon Footprint Plus

Figure 3: Newcastle Hospitals Carbon Footprint Plus Pie Chart





4.2 Red Flag Register

As a result of the findings in last year's Red Flag Report a red flag register was compiled, which identified several key themes we believe must be addressed in order for us to progress towards Net Zero and most importantly remain within our carbon budget.

As we anticipate another extremely challenging year ahead for the NHS and Newcastle Hospitals, we remain focused on the red flags as the key to unlocking transformational change.

1. DEDICATED RESOURCE TO DRIVE URGENT CHANGE



✓ Achievements

Recruitment has begun for a dedicated Net Zero Engineering team to drive the decarbonisation of the estate.

⚠ Focus for 2023-24

Onboarding the Net Zero Engineering team will be a main focus of the rest of 2023, as well as prioritising a detailed estates decarbonisation pathway and applying for funding to deliver schemes.

2. SUSTAINABILITY CONSIDERATIONS IN ALL DECISION MAKING



✓ Achievements

Sustainability is built into Business Development & Investment proposal assessment, and procurement processes.

⚠ Focus for 2023-24

We will work to embed sustainability into emerging clinical boards through the Shine 10-step framework.

A Board approved Climate Charter will be developed which will highlight major policy commitments to a wide audience.

3. SIGNIFICANTLY INCREASE INVESTMENT IN ESTATE DECARBONISATION



✓ Achievements

Awarded Public Sector Decarbonisation Scheme funding to decarbonise Regent Point.

⚠ Focus for 2023-24

As already outlined a Net Zero Engineering team is being recruited into Estates. Begin to deliver decarbonisation work at Regent Point, which includes air source heat pumps.



As we anticipate another extremely challenging year ahead for the NHS and Newcastle Hospitals, we remain focused on the red flags as the key to unlocking transformational change

4. LEADERSHIP TO SIGNAL THAT ACTION ON THE CLIMATE EMERGENCY IS A TRUST PRIORITY



✓ Achievements

We secured executive level approval for investment in a Net Zero Engineering team despite significant financial pressures.

There is regular reference to sustainability in Trust communications and Dame Jackie's blog.

⚠ Focus for 2023-24

Deliver Board Development training supported by IEMA (Institute for Environmental Management and Assessment) using an IEMA guidance note.

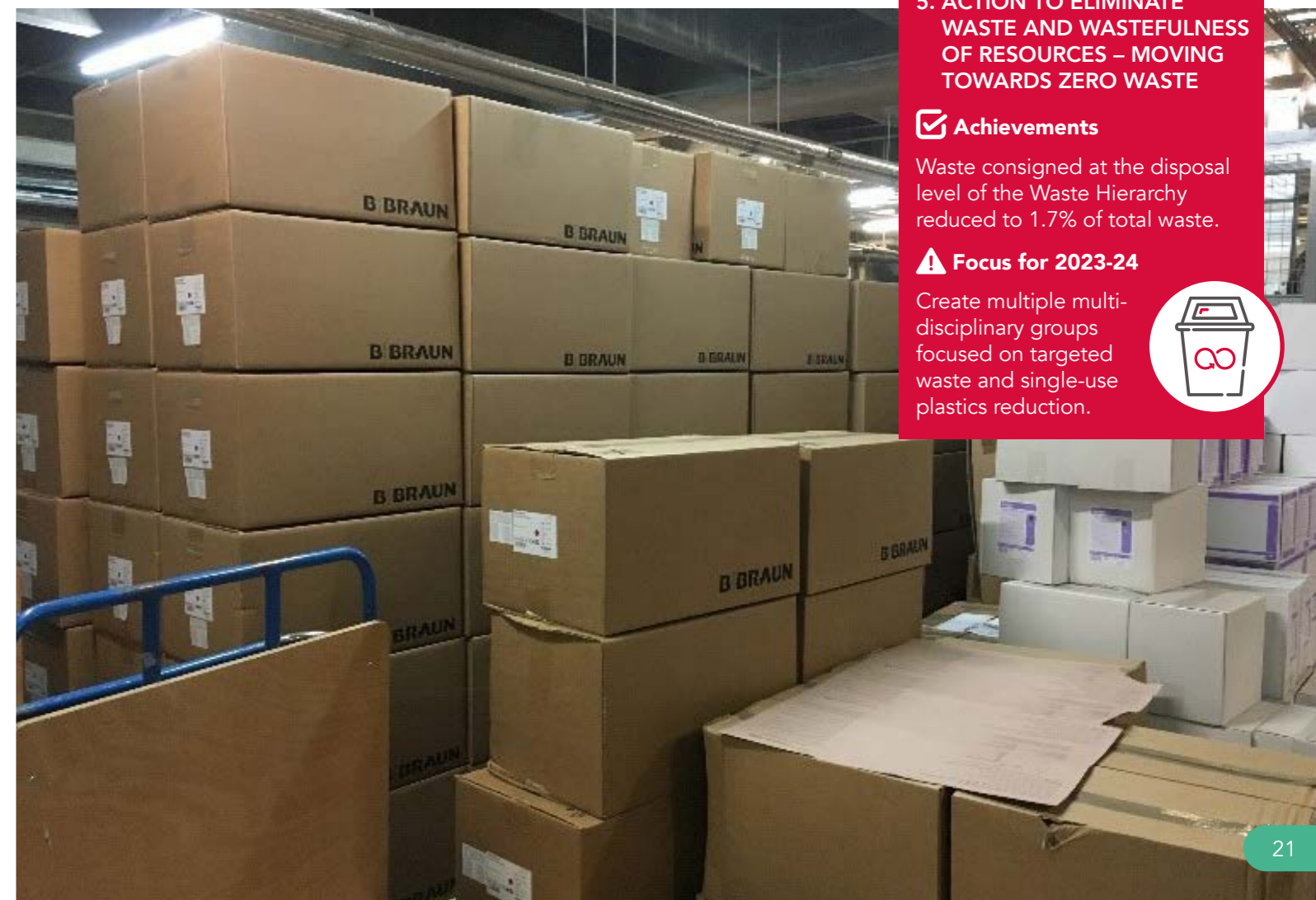
5. ACTION TO ELIMINATE WASTE AND WASTEFULNESS OF RESOURCES – MOVING TOWARDS ZERO WASTE

✓ Achievements

Waste consigned at the disposal level of the Waste Hierarchy reduced to 1.7% of total waste.

⚠ Focus for 2023-24

Create multiple multi-disciplinary groups focused on targeted waste and single-use plastics reduction.



5. Stakeholder Engagement

STAFF SUSTAINABILITY SURVEY

Every year we ask our staff a number of questions in our annual staff sustainability survey. Over 90% of staff say that it is important for the Trust to work in a more sustainable way.

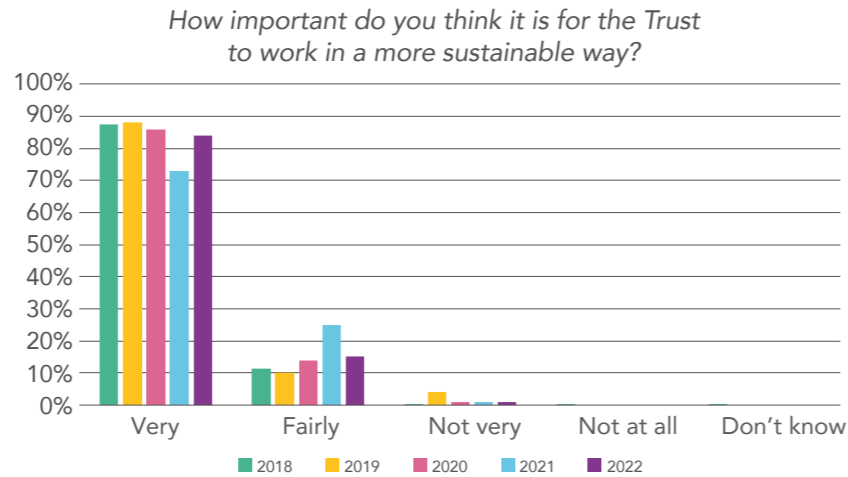


Figure 4: Staff survey – how important do you think it is for the Trust to work in a more sustainable way?

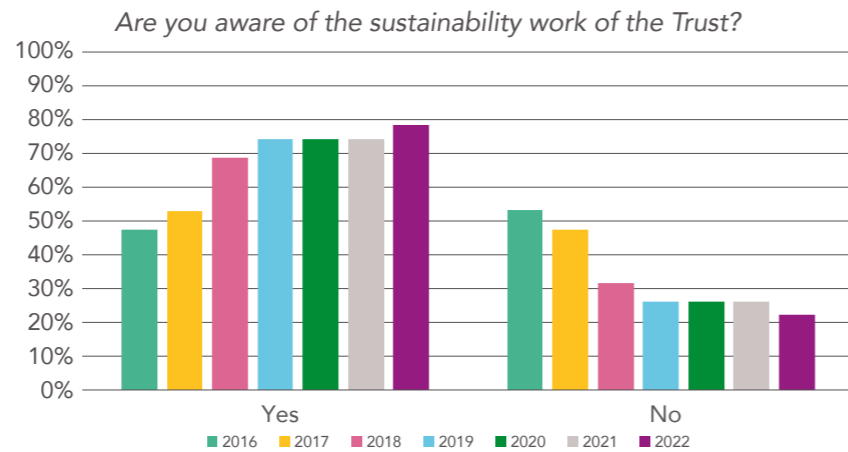


Figure 5: Staff survey – are you aware of the sustainability work of the Trust?

This year we asked a new question:

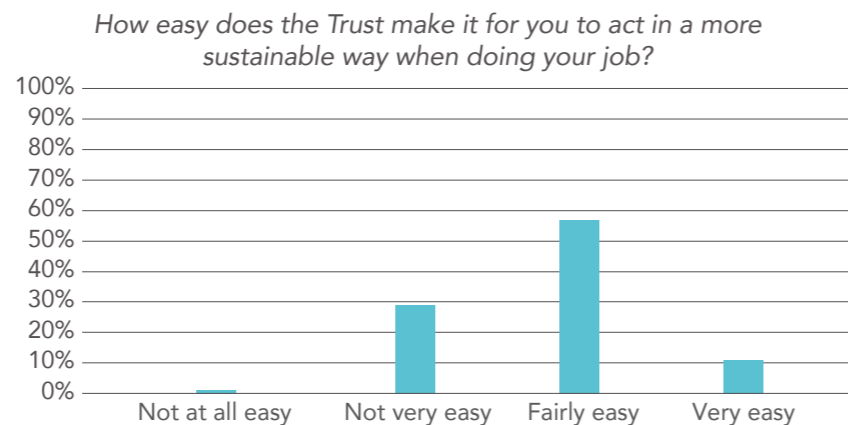


Figure 6: Staff survey – how easy does the Trust make it for you to act in a more sustainable way?

This tells us that whilst there remains a high level of enthusiasm for sustainability amongst our people, we could be doing more to convert that enthusiasm into action.

We have developed some initiatives to support staff led action which are detailed in the 'People' section of this report.

We will continue to ask this question and hope to see the results move towards more people saying we make it 'very easy' to act in a more sustainable way at work.

STAKEHOLDER SURVEY

As well as engaging with our staff, this year we have also carried out a stakeholder engagement survey for the first time.

This clearly demonstrates that action on sustainability is of importance to stakeholders which include patients, visitors and families, members of the local community and so on.

Worryingly, 76% of stakeholders said they are concerned about the impact of climate change on their health, or the health of a loved one. And just over 50% said they are very concerned.



How concerned about the impact of climate change on your health, or the health of a loved one, are you?

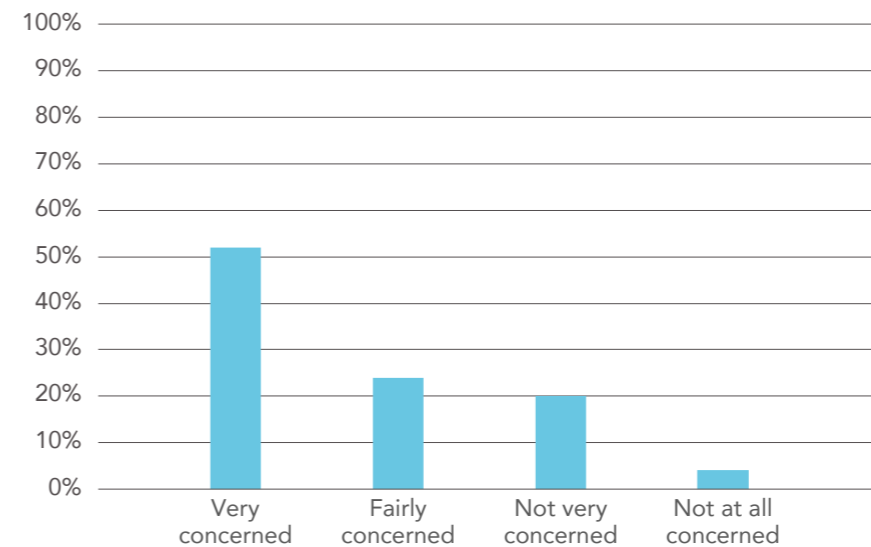


Figure 7: Stakeholder survey – how concerned about the impact of climate change on your health, or the health of a loved one, are you?

Climate change is already impacting the health of people living in Newcastle and the North East of England

Worryingly, 76% of stakeholders said they are concerned about the impact of climate change on their health, or the health of a loved one. And just over 50% said they are very concerned

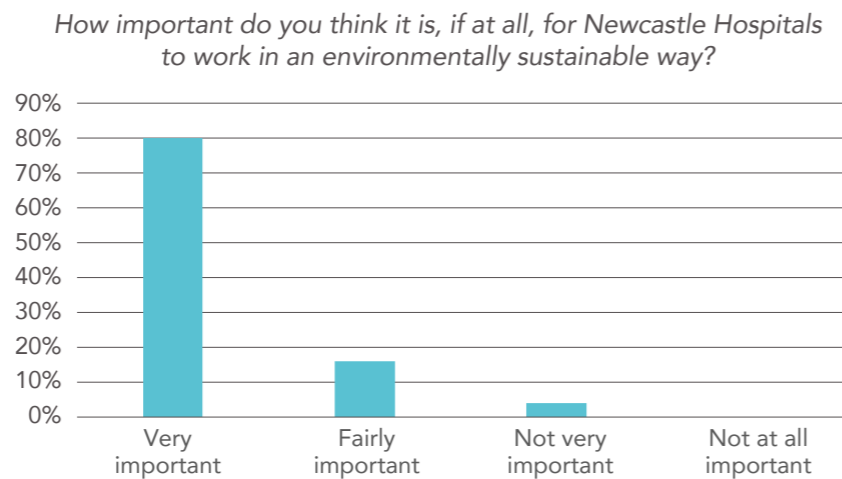


Figure 8: Stakeholder survey – how important do you think it is for Newcastle Hospitals to work in a more sustainable way?

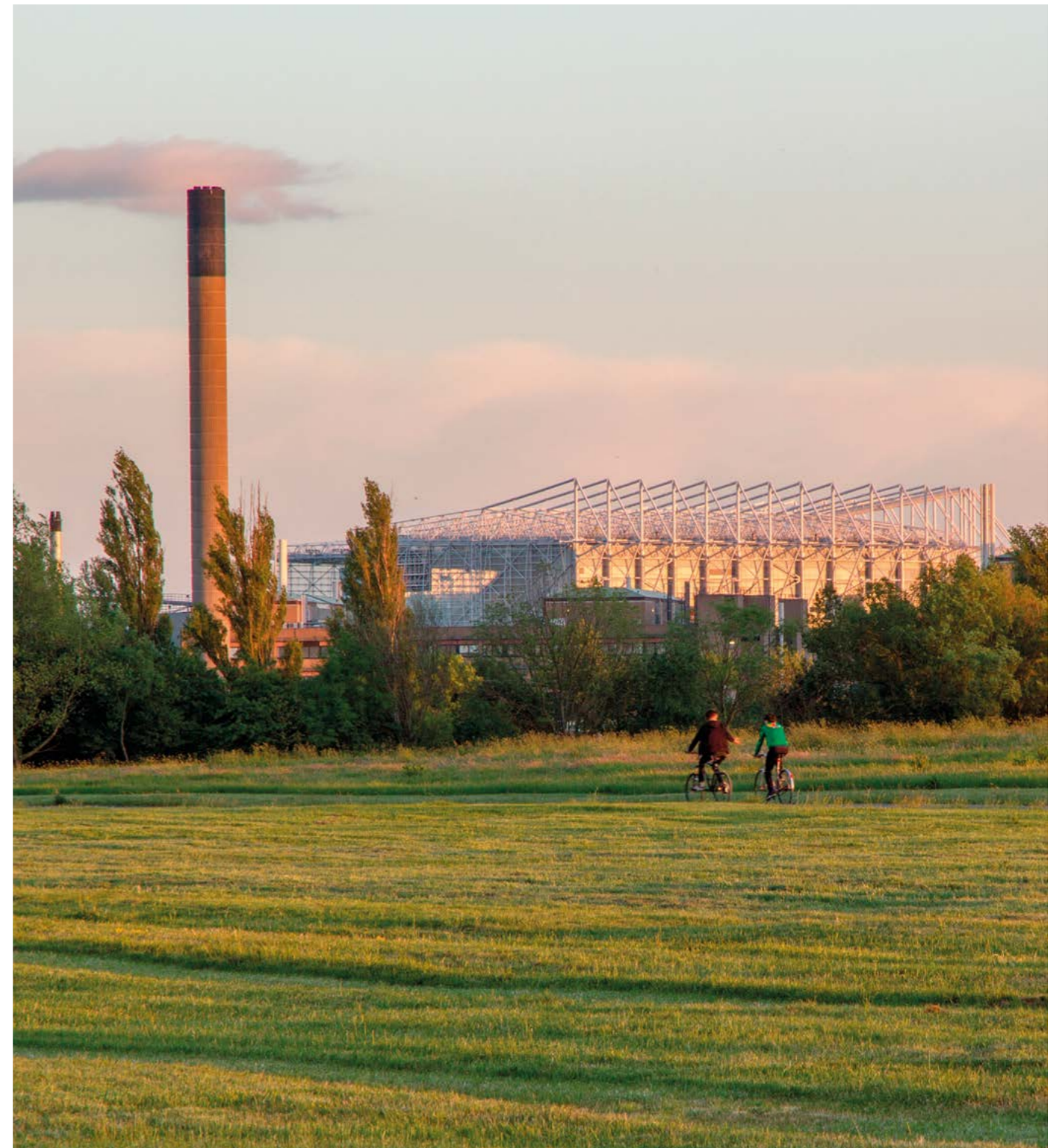
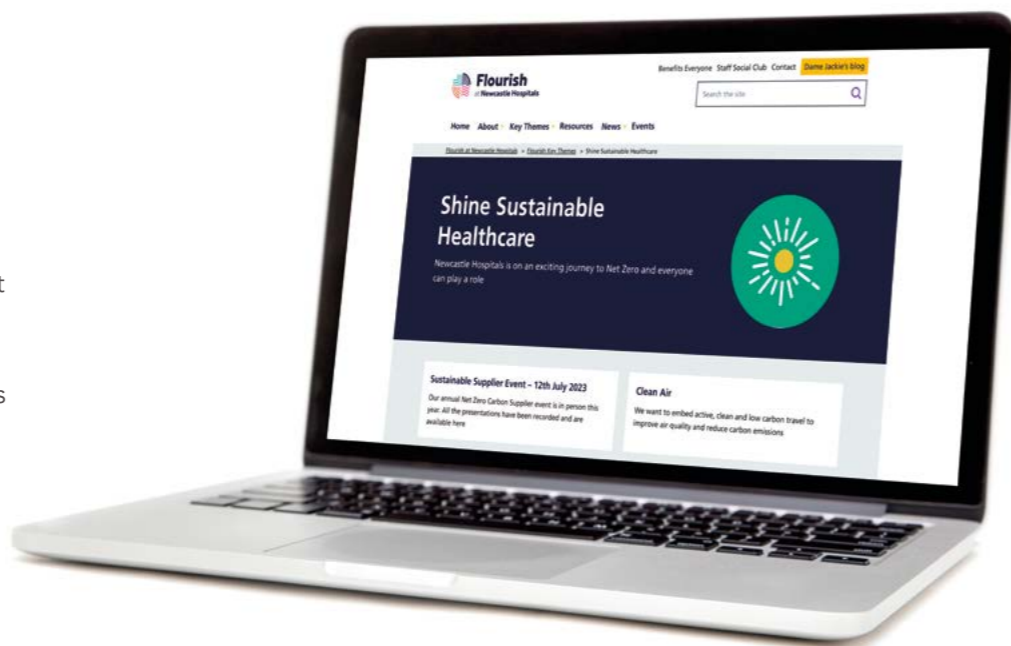
WHY IS THIS INFORMATION IMPORTANT?

Climate change is already impacting the health of people living in Newcastle and the North East of England.

Service users and staff are at the heart of all our decision making. This data tells us that our key stakeholders share concerns about the climate emergency and think sustainability should be an important part of the way we deliver our services.

We will commit to providing updates on our progress against our three goals and the actions identified within the Climate Emergency strategy so that these stakeholders can remain informed, and can hold us to account against what we have stated we will achieve.

To be more transparent we are publishing regular progress reports on the website: <https://www.flourishatnewcastlehospitals.co.uk/flourish-key-themes/sustainable-healthcare/>



6. Leadership, partnerships and collaboration



6.1 City

We continue to work with colleagues across the city, as part of Collaborative Newcastle: Net Zero Newcastle, to progress our low carbon strategic heat network opportunity. The detailed techno-economic feasibility study is being finalised and due for publication in early 2023/24. In addition to this project, we are supporting work to conduct an academic feasibility study to extract high temperature geothermal heat from the Town Moor (taking a similar approach to a successful scheme at the Eden Project in the South West).



6.2 Region

In July 2022, shortly after the statutory formation of the North East & North Cumbria Integrated Care System (NENC ICS) our Integrated Care Board (ICB) approved and launched the ICS Green Plan. This aims to bring together our system to work collaboratively, over and above our individual provider Trust Green Plans, to achieve a more sustainable regional healthcare system.

Progress towards achieving the actions in the ICS Green Plan has stalled over the autumn & winter, due to the competing priorities including winter pressures, elective recovery and funding constraints. An investment paper prepared for the

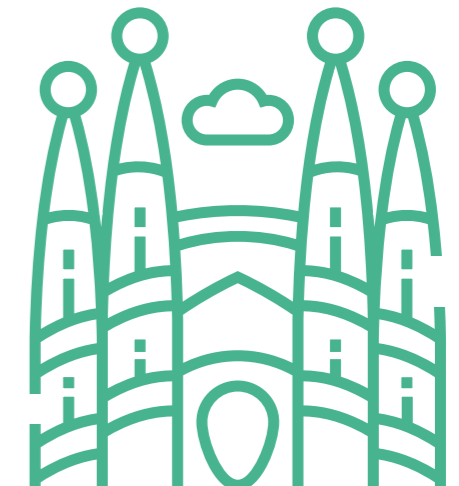
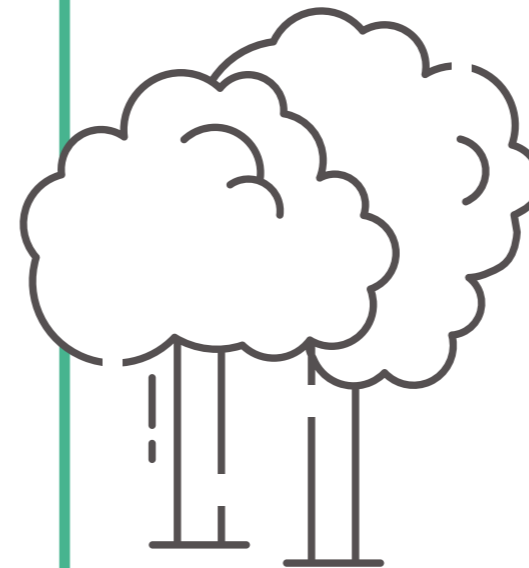
ICB, citing the resources required to progress the ICS Green Plan in the short-term and medium-term, was deferred a number of times as a consequence. At the time of publishing this report, the ICS is still without dedicated capacity and funding to progress actions in the ICS Green Plan (the NHS England-funded NENC ICS Senior Net Zero Programme Manager).

Provider Collaborative Sustainability meetings continue to take place, where NENC ICS provider Trusts meet regularly to share best practice across a wide variety of sustainability focus areas (energy, waste, travel, biodiversity and lower carbon care).



6.3 National

We continue to share our work and collaborate with other partners across the country. This includes co-chairing the Shelford Group's Sustainability Leads sub-group, attending the NHS England & Improvement (NHSEI) Medicines Sustainability Board as a system representative, hosting the UK's Sustainable Anaesthesia Fellow and actively contributing to the National Performance Advisory Groups for Sustainability Leads, Waste Managers and Active & Sustainable Travel.



6.4 International

As early signatories of the Global Green & Health Hospitals network, in 2011, we have worked with other progressive health systems from across the globe with the support of Health Care Without Harm. In July 2022 our Sustainability Team hosted a visit of Spanish hospitals and regional health ministries at our RVI site, as a follow-up to our work with the British Embassy in Madrid in

March 2022. We were able to share our experience of securing Board-level support for our Climate Emergency Strategy, our innovative work on nitrous oxide cracking in Maternity and moving our healthcare waste segregation practices up the waste hierarchy. Our in-house catering team also showcased a fantastic seasonal vegan menu for the delegates.





7. Key Action Areas

This section explores the progress made in each of our Shine action areas which feed into our three Climate Emergency Strategy goals, and the plans for next year and beyond.

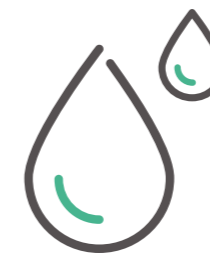
Following the 2020 'Delivering a Net Zero NHS' report, all NHS Trusts were asked to produce a strategy in the form of a Green Plan by January 2022 to outline how they plan to work towards Net Zero. As our Climate Emergency Strategy was published within the previous two years, we were not required to produce a new green plan, however the guidance for producing a green plan included core chapters which are: workforce and system leadership, sustainable models of care, digital transformation, travel and transport, estates and facilities, medicines, supply chain and procurement, food and nutrition, and adaptation.

We have mapped action across these areas within our existing eight Shine themes.



Energy

Minimise energy use and replace fossil fuels with zero carbon energy sources



Water

Minimise water use



Waste

Dispose of less, reuse and recycle more



Buildings & Land

Provide healthy, sustainable and biodiverse spaces



Journeys

Embed active, clean, low carbon travel



Procurement

Work with our supply chain to decarbonise



Care

Develop low carbon care pathways adapted to our changing climate



People

Inspire, inform and empower our people to deliver sustainable healthcare



7.1 Energy & Water

AIM

Reduce carbon emissions from energy use, in line with science informed budgets, to be on track for net zero by 2030:

- Use less energy.
- Replace fossil fuels with low and zero carbon energy sources.
- Investigate options to offset, or inset, our residual carbon emissions.

AIM

Minimise water use in our buildings:

- Eliminate wasted water.
- Increase water efficiency.

Carbon emissions from building energy for 2022/23 are 7% lower than in 2021/22 which, although encouraging, still falls short of our science-aligned carbon budget target

PERFORMANCE

Carbon Emissions from Building Energy

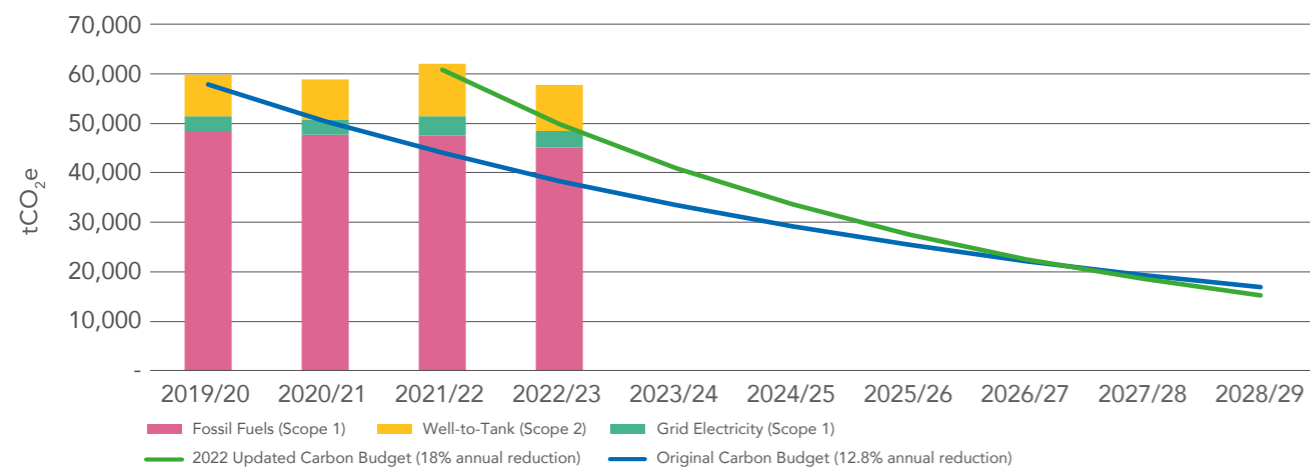


Figure 9: Total carbon footprint from building energy use

CASE STUDY:

We have changed our Energy Centre CHP run strategy to save over 1,000tCO₂e - Click [here](#) to learn more



ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

Carbon emissions from building energy for 2022/23 are 7% lower than in 2021/22 which, although encouraging, still falls short of our science-aligned carbon budget target.

Factors influencing this reduction include:

- Change to Freeman Energy Centre operational strategy – reducing the running hours of our fossil fuel Combined Heat and Power (CHP) to match our demand, with no export to the grid.
- Continued reduction in energy use and eventual closure of the Integrated Covid Hub North East (ICHNE) Baltic Labs.
- Extended CHP engine downtime at RVI resulting from unplanned maintenance (gaining benefit from cleaner grid electricity import).

Other activities carried out this year include:

- A successful bid was made for £1.7m Public Sector Decarbonisation Scheme funding to fully decarbonise Regent Point. This will include air source heat pumps, solar panels, LED lighting and Building Management System upgrades.
- Engagement with Senior Estates Management on decarbonisation and delivered Net Zero briefings for Estates.
- We are a key partner in the City Heat Network feasibility study.
- Continued to improve energy and water metering.

Carbon emissions from water have reduced due to revised UK Government carbon factors for water supply and water treatment.

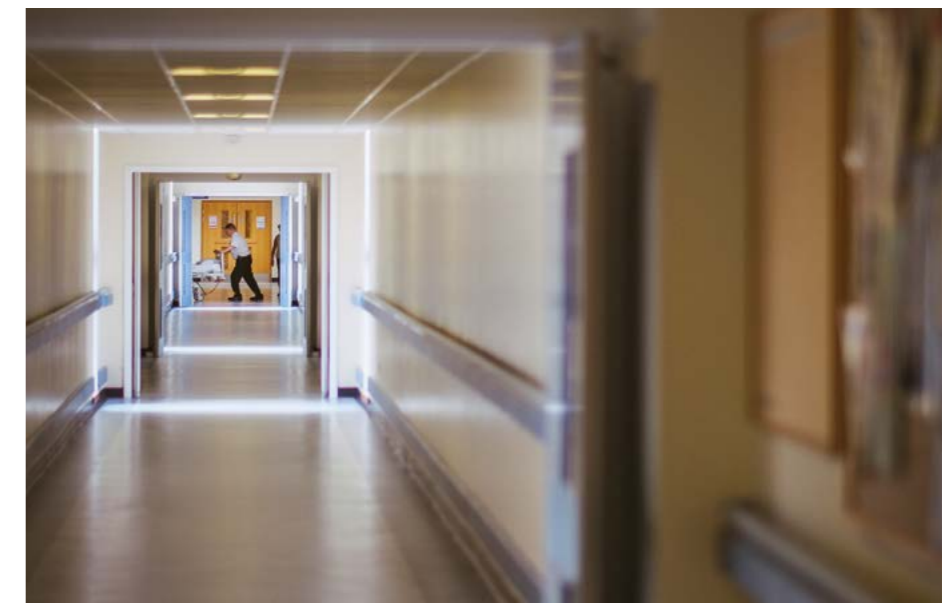
Water consumption has also reduced. Factors influencing this reduction include:

- Identifying and fixing a substantial leak at our CAV site in 2021.
- Reduced activity at ICHNE Baltic Labs.
- More accurate automatic water metering and supplier invoicing.

The result is that carbon emissions from Trust water use is 65% lower in 2022/23, compared to the baseline year 2019/20.

PLANS FOR THE NEXT YEAR

- Low Carbon Skills Fund application to further develop our heat decarbonisation plans for the RVI and Freeman Hospital.
- Continue to work as a partner in the development of a City Heat Network for Newcastle
- There are significant capacity issues within the Energy Team so it is a high priority to fill vacancies and onboard the Net Zero engineering team.
- Develop prioritised estates decarbonisation plan and seek external capital funding to deliver.





7.2 Journeys & Clean Air

AIM

Embed active, clean and low carbon travel to improve air quality and reduce carbon emissions from journeys:

- Reduce air pollution and carbon emissions from our owned and commissioned transport operations
- Use our influence to help fast-track the decarbonisation of transport in our supply chain
- Increase the proportion of people accessing our sites by active and sustainable travel methods
- Provide more care closer to, or at, home

PERFORMANCE

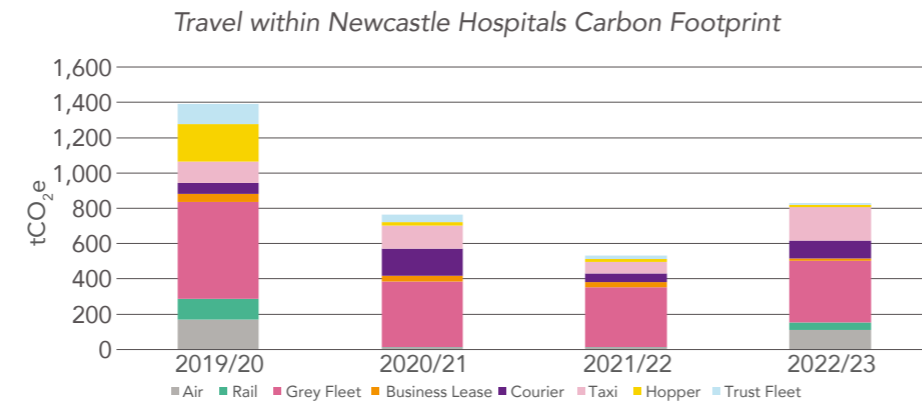


Figure 10: Carbon footprint from travel within the Newcastle Hospitals Carbon Footprint

We worked with mobilityways⁹ to survey Newcastle Hospitals employees on their travel to and from work. These are the key findings:

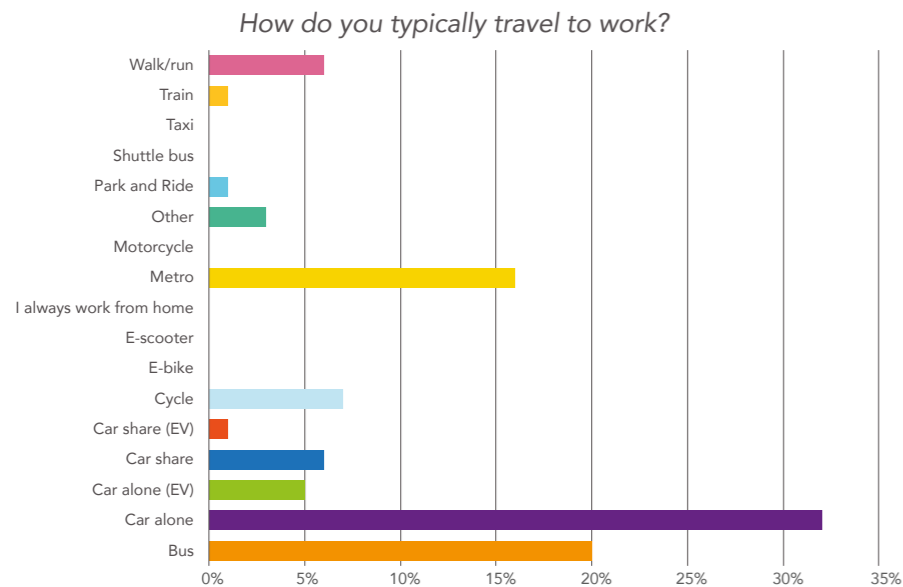


Figure 11: Staff journeys – how do you typically travel to work?

- 71% of employees work full time, commuting an average of 4 days per week, for an average of 10 miles each way
- 32% of respondents commute in a car, alone
- 49% of respondents were interested in joining a car share database, and 80% would like to receive a Personal Travel Plan
- 32% of employees would be encouraged to use public transport if there were more frequent reliable services and 26% if fares were cheaper
- The main way to encourage employees to walk would be to improve the showering and changing facilities on site, chosen by 7% of respondents
- The main way to encourage employees to cycle would be to improve the safety of routes and increase the provision of secure bike parking, as stated by 25% and 20% of respondents, respectively

CASE STUDY:

We have jointly recruited a four year PhD student to support our Clean Air Hospital project work, installing air quality monitoring equipment, analysing data and recommending interventions to clean up the air in and around our hospitals. - Click [here](#) to learn more



32% of employees would be encouraged to use public transport if there were more frequent reliable services and 26% if fares were cheaper

ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

Our partnership work with Global Action Plan and Boehringer Ingelheim, in developing the first ICS Clean Air Framework (<https://www.actionforcleanair.org.uk/health/ics-framework>), was shortlisted for an HSJ Partnership Award in the Environmental Sustainability Project category.

PLANS FOR THE NEXT YEAR

- Monitor ambient and indoor air quality at numerous locations at the RVI and Freeman Hospitals
- Increase the number of onsite active travel support facilities such as bike parking facilities.
- Increase awareness of active and sustainable travel amongst staff and visitors, including the development of a digital map of the RVI and Freeman Hospitals to highlight facilities.
- Develop and provide personalised travel plans to staff and work on integrating within the staff onboarding process.
- Include air quality as part of staff induction.
- Increase the business mileage delivered by zero tailpipe emissions vehicles.



⁹ Mobilityways platform allows employers to measure, reduce and report commuter carbon emissions - mobilityways.com



7.3 Waste

AIM

Generate less waste; reuse and recycle more, and ensure unavoidable waste is disposed of in the most sustainable way:

- Reduce the amount of waste we create by working and purchasing in more resource-efficient ways
- Increase the number of items we reuse with a focus on reducing single-use plastics
- Repair or reuse more items that can be repaired or reused
- Increase the amount of waste that we reuse or recycle to 35% of consigned waste by volume

PERFORMANCE

Annual Waste Performance

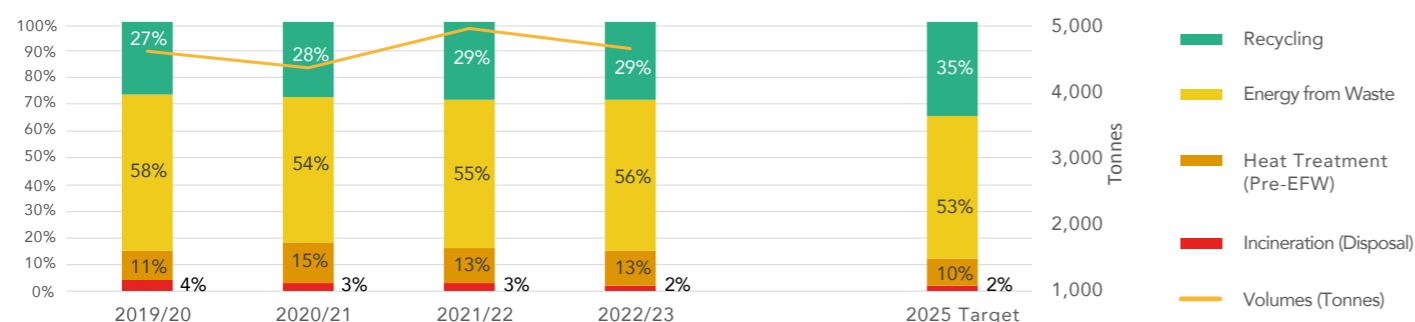


Figure 12: total waste disposed of by category

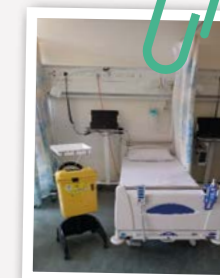
Almost 90 waste audits were completed, allowing the opportunity to ensure consistency, compliance and engagement with nursing and clinical staff

PLANS FOR THE NEXT YEAR

- Embed waste management into corporate induction and improve local induction guidance, including specialised training for key departments.
- Develop metrics for measuring and reporting waste prevention and re-use.
- Incorporate waste management training into the Healthcare Assistant Academy.
- Increase opportunities for recycling and implement the non-infectious waste steam (where it is not already present) in our community sites.
- Remove disposable coffee cups from Regent Point café to reduce overall waste volumes, improve recycling and reduce the number of single use plastics used at that site.
- Remove disposable cutlery and crockery from wards except where there is a specific patient need.
- Work with clinical departments to identify opportunities for waste reduction and removal of single use items.
- Expand food waste recycling at our main hospitals.

CASE STUDY:

We have been working with SharpSmart to move waste up the waste hierarchy – [Click here to learn more.](#)



ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

Overall waste volumes are 6% lower than last year, however they are slightly higher than our 2019-20 baseline year. The decrease in waste volumes this year is largely due to the reduction in activity at Integrated Covid Hub North East (ICHNE) Baltic Labs. Other site waste volumes are approximately back to pre-pandemic levels, and work is required to reduce these volumes.

The majority of our waste is sent for energy recovery and 29% of waste is currently recycled. None of our waste has been sent to landfill since 2011.

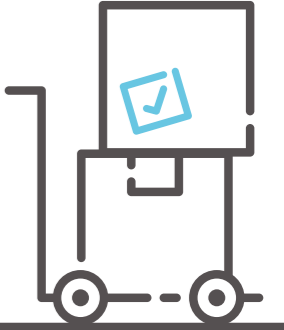
Less than 2% of waste is sent for incineration without energy recovery - the lowest level of the waste hierarchy. This is a 40% reduction on the previous year and over 50% lower than our baseline year.

Almost 90 waste audits were completed, allowing the opportunity to ensure consistency, compliance and engagement with nursing and clinical staff.

Established single-use metal instrument recycling in theatres and key departments to enable greater recycling of single use metal instruments.

Supported a quality improvement project to reduce the volume of medicines being disposed of, through looking at training and information, improving storage, and providing dedicated staff resource.





7.4 Procurement

AIM

Embed sustainability and support for climate emergency action into all purchasing decisions, working towards a net zero carbon supply chain:

- Consume less
- Embed carbon reduction into our procurement processes
- Establish positive relationships with key suppliers
- Engage in research and innovation in order to reduce impact across whole value chain
- Improve confidence in our supply chain carbon data
- Invest more in our local supply chain
- Increase the amount of sustainable, local, healthy food available to staff, patients and visitors

764 of our suppliers (22%) have engaged in our supplier Net Zero programme, with 87% supporting our Net Zero by 2040 goal

PERFORMANCE

ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

- Built Government and NHSE mandates on social value & net zero into our procurement processes.
- 764 of our suppliers (22%) have engaged in our supplier Net Zero programme, with 87% supporting our Net Zero by 2040 goal.
- 5-step [Net Zero Supplier Framework](#) awarded the Net Zero Award at the NHS Innovate Awards and gained an Honourable Mention at the International Hospital Federation Awards. This framework was formalised as a mandatory contractual requirement for all suppliers.
- [Sustainable Suppliers webpage](#) created to be accessed by suppliers to view webinars and read supplier case studies.
- Developed a partnership with Supply Chain Ltd to improve the reporting of supply chain carbon emissions, and focus effort on low cost, high volume consumable products.
- Sustainability included as a key priority in the refreshed Trust Food and Drink Strategy.

PLANS FOR THE NEXT YEAR

- Work on developing a regional furniture re-use scheme
- Include social value criteria in every tender
- Develop a sustainable partner programme for suppliers
- Improve training and upskill staff across the procurement directorate.
- Develop focus groups to address key issues, such as championing re-use over single-use, bringing together expertise from procurement, clinical care, sustainability and Infection, Prevention and Control.

CASE STUDY:

As part of the initiative to reduce supply chain carbon emissions, we visited the NHS Supply Chain distribution site at Normanton. [Click here to read more](#) about the challenge of reporting our scope 3 carbon emissions.





7.5 Models of Care

AIM

Develop low carbon care pathways adapted to our changing climate:

- Engage in research and innovation in order to lower carbon across our care pathways
- Collaborate to reduce the carbon footprint of respiratory care through a detailed review of inhaler prescription and use
- Lead on the systematic reduction of anaesthetic gas environmental impact across all care pathways
- Empower our clinicians to improve the sustainability of their models of care

PERFORMANCE

Carbon Footprint from Inhalers

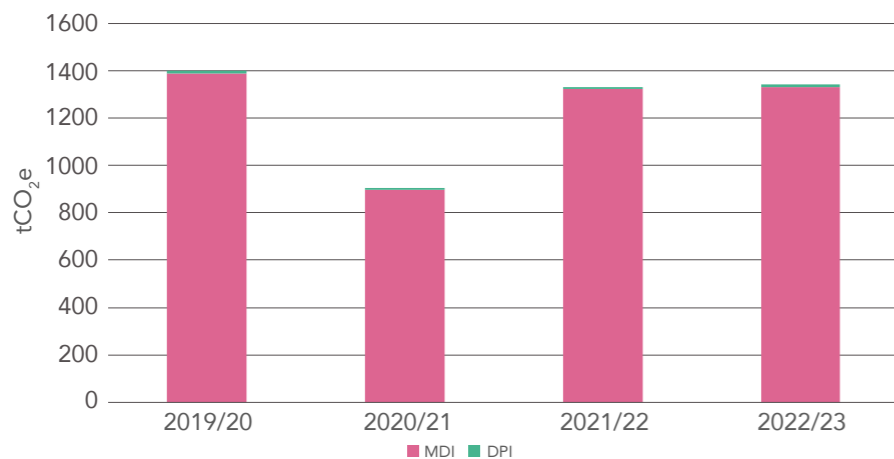


Figure 13: Carbon footprint from inhaler prescribing at Newcastle Hospitals

Carbon Footprint from Anaesthetic Gases

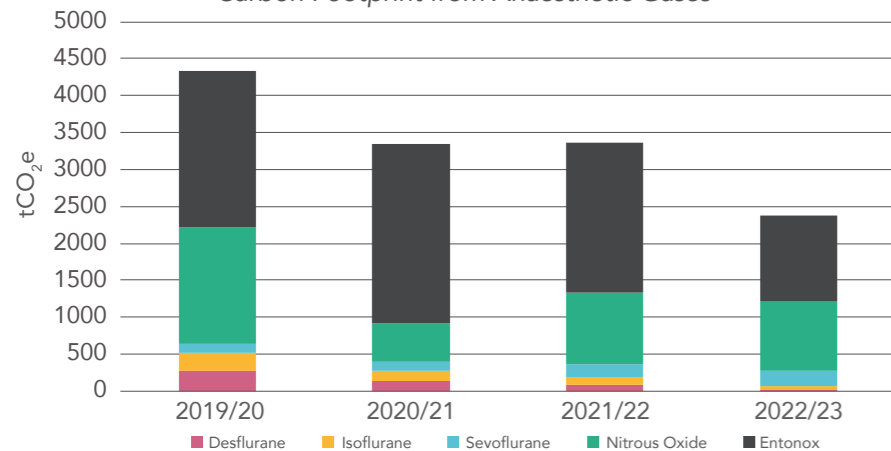


Figure 14: Carbon emissions from anaesthetic gas use at Newcastle Hospitals

We will continue to embed sustainability into Newcastle Improvement resources so that sustainability becomes a recognised domain of quality



CASE STUDY:

We are starting to see the impact of implementing Entonox cracking technology in RVI midwifery - [Click here](#) for more info

ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

We have seen a 37% reduction in the carbon footprint from anaesthetic gases compared to last year. Desflurane use is at a negligible level, and we are beginning to see the impact of Entonox capture and cracking technology.

Following a successful UK-first trial the Trust has invested in technology to safely crack the exhaled Entonox, used by birthing mums in our Delivery Suite & Newcastle Birthing Centre, into inert Oxygen and Nitrogen. This project was also shortlisted in the Environmental Sustainability Project category of the HSJ Partnership Awards 2023.

Two Newcastle Hospitals Charity funded Sustainability Fellows came in to post, one in Children's Medicine and one in Oncology.

Work continues to embed sustainability into the work of Newcastle Improvement. With the support of the Paediatric Clinical Sustainability Fellow and the Centre of Sustainable Healthcare, sustainability is now included as one of the six domains of quality. Sustainability is now part of Newcastle Improvement training and resources.



Sustainable Anaesthesia Fellow continues to lead work on volatile anaesthetic gas capture, energy reduction in theatres through heating, ventilation and air conditioning (HVAC) optimisation, and programme to switch off Nitrous Oxide manifolds, reducing waste through leakage – with a staff health and wellbeing benefit.

PLANS FOR THE NEXT YEAR

Hold a number of focus groups bringing together a multi-disciplinary team around an issue for example reducing single-use items, following the model that has been used to start to address the medicines waste ([see case study](#)).

Continue to embed sustainability into Newcastle Improvement resources so that sustainability becomes a recognised domain of quality.

Recruit a second year of Clinical Sustainability Fellows, funded by the Newcastle Hospitals Charity, and seek to expand the programme to include a Nursing, Midwifery and Allied Health Professional (NMAHP) Fellow.

CASE STUDY:

A multi-disciplinary team bringing together expertise from Nursing, Pharmacy and Quality Improvement was established to reduce the volume of wasted medicines generated at ward level. [Click here to access a case study as work progresses.](#)





7.6 Buildings and Land

AIM

Provide healthy, sustainable and biodiverse spaces for patients, staff and visitors:

- Include opportunities for sustainability innovations in all new builds and refurbishments based on recognised standards
- Build climate adaptation and resilience into our management of existing estate as well as all new builds and refurbishments
- Expand our green space and enhance the biodiversity of our land

This year there have been a number of areas identified by staff for a 'Green the Grey' charity-supported project, to improve biodiversity of, and access to, various courtyard areas



ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

- Sustainability included as a critical element of two major new build projects. Both on track to achieve BREEAM 'outstanding' and Net Zero in-use.
- Established a biodiversity metric to allow us to track progress annually.
- Biodiversity action plan completed for the green spaces at the RVI and Freeman Hospital and some habitat improvements have been made – see case study.
- A number of areas identified by staff for a 'Green the Grey' charity-supported project, to improve biodiversity of, and access to, various courtyard areas.
- Progress made on development of Ismail's garden – see case study.
- Working with the Centre for Sustainable Healthcare we hosted a Nature Recovery Ranger to support staff engagement in the projects.



PLANS FOR THE NEXT YEAR

- Complete two Green the Grey projects which have funding allocated and apply for funding for an ambitious green spaces project to include a Freeman Garden, and the remaining courtyards, extending to some community sites.
- Complete Ismail's garden project



Our aim is to expand our green space and enhance the biodiversity of our land

CASE STUDY: Freeman biodiversity

The Biodiversity Action Plan has led to the implementation of site improvements which has enhanced the Biodiversity Metric Score. [Click here](#) to learn more.



CASE STUDY: Ismail's garden

Inspired by a letter from a patient in the Children's Hospital asking for a 'Place to & Grow'. This garden is being designed young patients themselves. [Click here](#) to read more about this project and the of our 'Green Spaces' work.





7.7 People

AIM

Inspire, inform and empower our people to deliver sustainable healthcare:

- Embed Shine and climate emergency action into the culture of our organisation, demonstrated in staff behaviours
- Upskill our workforce and ensure capacity to address the climate emergency



- Empower our people to make the most sustainable choice
- Extend our reach to influence action amongst our wider stakeholders, including patients

PERFORMANCE

- 37 Green Champions Plus
- 388 Green Champions
- 22 new Sustainability Ambassadors
- Over 80,000 Shine Reward Actions
- 13 Climate Emergency Action Fund projects approved
- 1,406 @sustainableNUTH Twitter followers
- 99% of staff think sustainability is important

PLANS FOR THE NEXT YEAR

- Continue to expand Green Champions and Green Champions Plus, building the Green Champions Plus group into a network of knowledgeable and motivated staff who can lead change in their own areas of work.
- Support that group by facilitating partnerships and assisting with upscaling and spreading successes.
- Increase visibility of the work the Green Champions Plus are delivering through case studies, learning and sharing events, visual displays, Dame Jackie's blog and featuring in Green News.

CASE STUDY: Embedding sustainability

A programme of employee engagement and training has been developed, growing from a group of Green Champions to a tiered network of engaged and motivated staff, mobilised and empowered to take action. [Click here for a case study on this project.](#)



ACTIONS AND ACHIEVEMENTS FROM THIS YEAR

We have developed a 10-step sustainability framework for directorates to embed sustainability into their own strategies and departmental culture. This has been taken up by 10 departments.

Our training programme has continued to be rolled out with the fourth cohort of Sustainability Ambassadors trained, and bi-monthly 'Leading in the Transition to Net Zero' courses delivered.

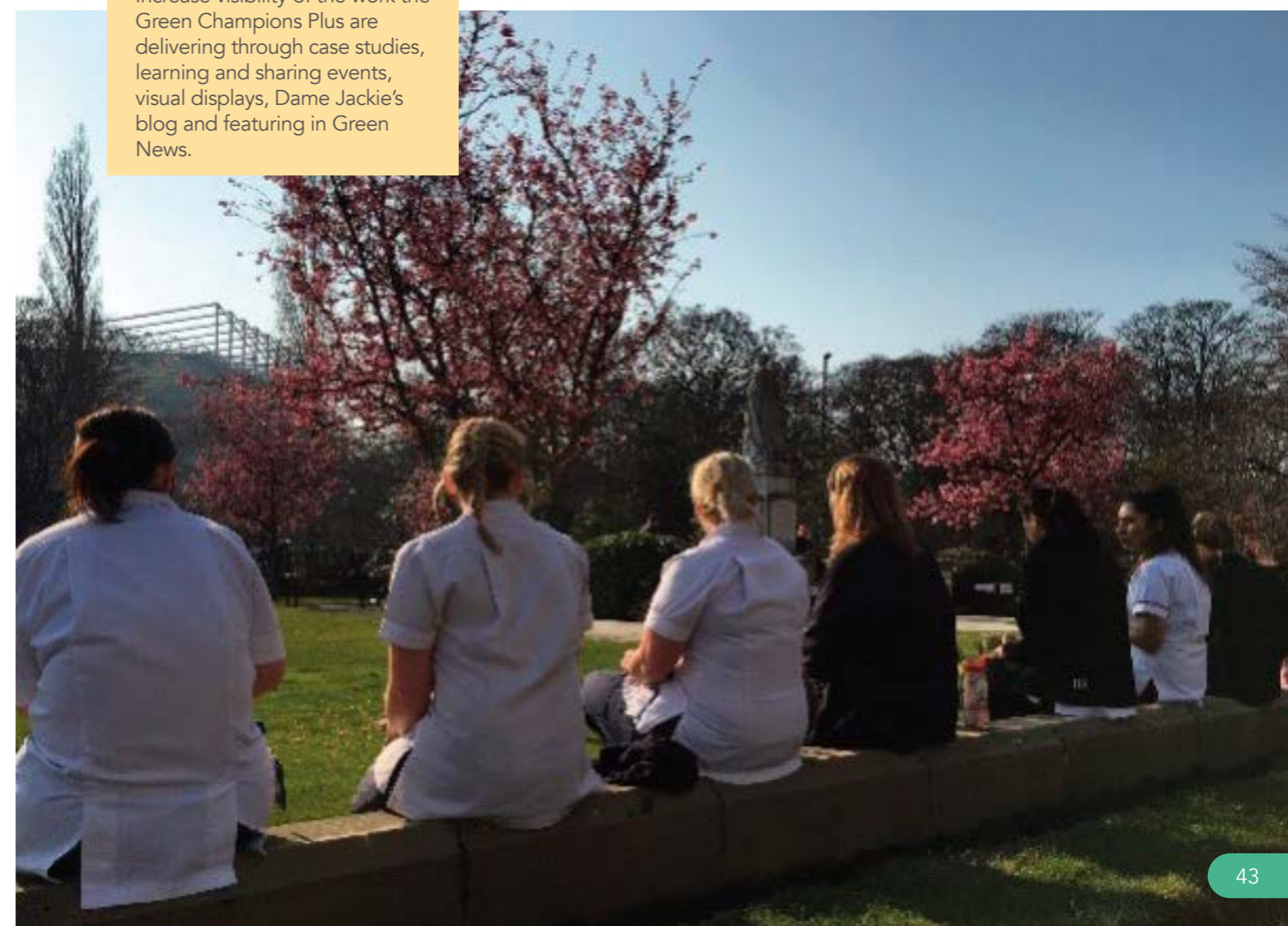
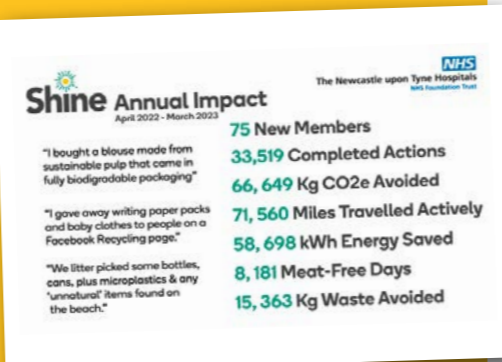
Training to reach all Estates staff has been approved, this is significant because this staff group that has responsibility for almost 90% of our controllable carbon emissions (building heat and power).

Our staff engagement programme, Shine Rewards, continues to recruit staff with over 1000 signed up undertaking over 86,000 sustainable actions. We have kicked off a dedicated campaign linking sustainable behaviours with financial wellbeing to help support staff in the cost of living crisis.

With Executive Oversight Group support this year we offered a £50,000 Climate Emergency Action Fund to help kick start small-scale staff led sustainability projects which was spent by the end of the year on projects including:

- Development of innovations to reduce use of single-use plastics in the cleaning of portable, reusable equipment.
- Indoor planting to improve indoor air quality, temperature regulation and wellbeing
- A warming cabinet to allow reusable blankets to be used in theatre recovery
- 'Sensational thinking' sensory garden
- Sustainability workshops to increase engagement in Integrated Laboratory Medicine
- Newcastle Improvement sustainability appraisal from Centre for Sustainable Healthcare
- Estates outdoor air quality monitoring equipment

The Green Champions and Green Champions Plus networks have continued to grow this year – see case study for more information on these staff groups.



8. Technical Appendix

In our Climate Emergency Strategy 2020-2025 we included a commitment to measure our performance across each of our eight Shine themes and report this publicly.

We appreciate that this level of detail would make our Annual Shine Report very lengthy and hard to read, so we have included some headline performance data within this report and have made our full key performance indicators available separately on our website.

This is updated annually along with our SECR compliant carbon footprint, and is [available here](#).



9. Contact Details

This Annual Report has been produced by the Sustainability Team at Newcastle Hospitals but reflects work taking place across the Trust. All information contained within it is, to the best of our knowledge, accurate at the time of publishing.

If you wish to contact the Sustainability Team please email nuth.environment@nhs.net

Or write to us at: Sustainability Team (Estates Department)
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Queen Victoria Road
Newcastle upon Tyne
Tyne and Wear
NE1 4LP

You can follow us on Twitter: [@SustainableNUTH](https://twitter.com/SustainableNUTH)

Let us know
your thoughts on
this report, and
how it could be
improved



10. Glossary

BREEM – Building Research Establishment Environmental Assessment Method used to assess, rate and certify the sustainability of buildings.

Carbon dioxide equivalent (CO₂e)
– A carbon dioxide equivalent or CO₂e, is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

CHP – Combined Heat and Power, the production of electricity or power from a single source of energy, in this case gas.

Climate emergency – A climate emergency declaration is action taken to acknowledge that humanity is in a climate emergency, and urgent action is required to reduce or halt climate change and avoid potentially irreversible damage resulting from it.

DPI – Dry Powder Inhalers deliver medication to the lungs as you inhale through the device.

Flourish – Newcastle Hospitals' cornerstone programme to support all employees to liberate their potential at work and create the best NHS organisation possible.

Greenhouse gas protocol – global standardised framework to measure and manage greenhouse gas emissions.

Hybrid method – used to calculate emissions from purchased goods and services. Method uses a combination of supplier-specific activity data (where available) and secondary data to fill the gaps. This method involves collecting allocated scope 1 and scope 2 emission data directly from suppliers; and using secondary data to calculate upstream emissions wherever supplier-specific data is not available.

ICS – a statutory committee jointly convened by Local Authorities and the NHS, comprised of a broad alliance of organisations and other representatives as equal partners concerned with improving the health, public health and social care services provided to their population.

NHS E&I Net Zero Supplier Roadmap & Evergreen Framework
– NHS England and NHS Improvement (NHS E&I) work together as a single organisation. In September 2021 a supplier roadmap was approved to help suppliers align with the NHS net zero ambition. The Evergreen sustainable supplier assessment is the mechanism for suppliers to engage with the NHS on the requirements of the roadmap. <https://www.england.nhs.uk/greenernhs/get-involved/suppliers/>

PPN 06/20 – Procurement Policy Note 06/20 (PPN06/20) applies to procurements covered by the Public Contracts Regulations 2015 and requires a minimum of a 10% weighting for social value questions.

PPN 06/21 – Public Procurement Notice 06/21 (PPN06/21) requires all companies and organisations who apply for central government contracts (above £5m framework value) to publish a Carbon Reduction Plan and demonstrate their alignment with the government's 2050 Net Zero goals.

PSDS – The Public Sector Decarbonisation Scheme (PSDS) provides grants for public sector bodies to fund heat decarbonisation and energy efficiency measures.

Shelford Group – The Shelford Group is a collaboration between ten of the largest teaching and research NHS hospital trusts in England.

Spend-based method – used to estimate emissions from purchased goods and services by collecting data on the economic value of goods and services purchased and multiplying it by relevant secondary (e.g. industry average) emission factors.

Waste hierarchy – The waste hierarchy ranks waste management options according to what is best for the environment.

11. End Notes

Notes about methodology:

- Newcastle Hospitals NHS Foundation Trust has adopted an operational control approach to establishing the boundary. The methodology adopted in line with the Greenhouse Gas Protocol¹ and the BEIS Environmental Reporting Guidelines. The calculations were completed on the SmartCarbon™ Calculator using the latest UK Government emissions factors.
- CO₂e is the universal unit of measurement to indicate the global warming potential (GWP) of Greenhouse Gases (GHGs), expressed in terms of the GWP of one unit of carbon dioxide. There are seven main GHGs that contribute to climate change, as covered by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). Different activities emit different gases. Using CO₂e allows all greenhouse gases to be measured on a like-for-like basis.
- For National grid electricity consumption, Newcastle Hospitals NHS Foundation Trust has included factors for the transmission and distribution of electricity (T&D) losses, which occur between the power station and site(s). The emissions from T&D has been accounted for in Scope 3. As with other Scope 3 impacts, reporting T&D is voluntary but is recommended standard practice by UK Government.
- Well-to-tank (WTT) fuels conversion factors have been included to account for the upstream Scope 3 emissions associated with extraction, refining and transportation of the raw fuel sources to an organisation's site (or asset), prior to combustion. As with other Scope 3 impacts, reporting WTT is voluntary but is recommended standard practice by UK Government.
- Procurement carbon emissions are calculated using a hybrid method – deducting known scope 1 & 2 reported carbon data from suppliers from the carbon footprint calculated using a spend based method - £ spent in each spend categories multiplied by average carbon factors for those categories.
- A full SECR compliant report is available on request. <https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf>



The time
for action
is now!