

NHSGGC Climate Change and Sustainability Strategy 2023 -2028



Executive Summary

In response to the Scottish Government launching “A Policy for NHS Scotland on the Climate Emergency and Sustainable Development (DL 38)” this strategy was developed to encompass NHS Greater Glasgow and Clyde’s medium term sustainability objectives (2023 – 2028) as a platform to build on for the longer term 2038 and 2040 targets. These targets are embedded objectives in the Annual Delivery Plan (ADP) and Medium Term Plan (MTP) planning guidance issued by the Scottish Government. NHSGGC sustainability governance framework provides the appropriate governance and delivery groups ensuring engagement with relevant stakeholders, to drive objectives in the following **key areas**:



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1. Chief Executive Foreword

NHS Greater Glasgow and Clyde (NHSGGC) Climate Change and Sustainability Strategy is our response to the climate emergency and platform for demonstrating our approach and progress against the ambitious targets set by the Scottish Government and with [National Policy](#).

The climate emergency poses a significant threat to public health and healthcare assets and services. We recognised the need for a more ambitious approach and as part of our response officially announced NHSGGC's climate emergency in 2021. This emergency is recognised as the single greatest threat to global health. Global temperatures have already increased by 1.1°C from pre-industrial levels and if they continue beyond the 1.5°C threshold we face irreversible temperature change. Without mitigation and adaptation at pace, climate change will define the health profile of current and future generations and will challenge the very fabric of our NHS. We see the Climate Change and Sustainability agenda as crucial in the medium to long term to achieve and deliver on our corporate objectives:



Better Care

Delivering Sustainable Care to patients by utilising new technologies and processes that reduce our footprint that improves patient outcomes and staff experience.



Better Health

Working with our communities and stakeholders in our capacity as an anchor organisation in the region to effect positive societal change through education and economic activity to improve health outcomes.



Better Value

This transformational change is part of our wider approach to financial sustainability of the organisation. Financial sustainability is crucial to our approach; however, we will ensure that it is approached in a balanced way.



Better Workplace

Improving the workplace of our staff through not only enhancing the greenspace and biodiversity of our estate but ensuring staff are empowered and enabled in making sustainable changes.

NHSGGC is the largest health care provider and one of the largest employers in Scotland. This is reflected in our sustainability strategy, which sets out a clear pathway using a systems-based approach towards a net zero heat Greenhouse Gas Emissions (GHG) emissions by 2038 and an overall position of net zero greenhouse gas emissions by 2040. This strategy will be reviewed every five years to reflect the progress and changes captured by NHSGGC's robust governance framework, inclusive of the Scottish Government's Medium Term Planning guidance, National Policy, NHS Board corporate objectives, and risk and opportunities associated with the agenda.

Our vision is to make our buildings and services as efficient and sustainable as possible. They will be welcoming places, which are pillars of our communities, with safe active travel routes and connected to low-carbon transport links to the rest of the city. Our outdoor estate will be safe, attractive, green spaces for relaxation, exercise and positive mental and physical wellbeing.

We wish to foster an environment for patients, staff and visitors to lead healthy, active lives, with access to the tools and resources they need to continue to provide and access high-quality care. Our vision is for an equal, prosperous and healthy city region, with NHSGGC serving our communities with a resilient health service which is socially, economically and environmentally sustainable.

The NHS Board's Sustainability Governance Group will lead on this transformational change. However, this committee cannot do it alone. I wish to encourage and support every member of staff to play their part in supporting sustainability actions. Everyone can make a difference, no matter how big or small, to ensure this strategy is delivered.



Jane Grant
Chief Executive, NHSGGC



2. Introduction

2.1 Our Reach

NHSGGC is the largest health board in Scotland. Serving a population of over **1.2 million people**, the Board covers the city of Glasgow, Inverclyde, Renfrewshire, East Renfrewshire, East Dunbartonshire and West Dunbartonshire. As an integral part of the community and anchor organisation, NHSGGC works alongside local authorities and the voluntary sector in its provision of a wide range of health services.

The Board has an annual budget of **£4 billion** and employs over **42,000 staff**. The Queen Elizabeth University Hospital Campus is the largest Critical Care complex and Emergency Department in Europe, with maternity, children's and adult acute services all together on the one campus in Govan. NHSGGC also operates a laundry facility, which provides services for a number of health boards in central Scotland, along with a range of sterile service facilities including one large decontamination unit, a small - medium unit and seven endoscopy decontamination units. As Scotland's largest health board, we have an obligation to work in a way which has a positive effect on the communities we serve, as we aim to be a sustainability champion, educator and role model.

The Scottish Government launched "**A Policy for NHS Scotland on the Climate Emergency and Sustainable Development (DL 38)**" in 2021. NHSGGC has responded with this strategy to ensure the effective implementation of the national policy. Our strategy and governance framework set out key work streams to enable system wide sustainable development, which come together to actively support and deliver efficient and effective healthcare.

2.2 Local Context

Climate change poses major risks to the Glasgow region, being one of the major "high risk zones" of sea level rise in the UK¹. Therefore it is essential NHSGGC factors adaptation into its assets and services as climate change will affect the health of those living in the region by:

- 🍃 **Impacting directly on physical and mental health**
- 🍃 **Worsening impacts of air pollution**, particularly in vulnerable groups
- 🍃 **Increasing health inequalities**, particularly in already disadvantaged groups
- 🍃 **Reducing the performance of health and social care services**, particularly regarding infrastructure, transport, energy, water and waste
- 🍃 **Increased demand on services**, due to extreme weather and results of health impacts including mental health conditions.

As one of Scotland's largest employers¹, NHSGGC has a critical role to play in protecting the regions health. In recognising the opportunity, NHSGGC can be at the forefront of this change agenda by reducing its environmental impact, embracing adaptation and in turn improving the health of the communities we serve.

¹[Climate Ready Clyde, 2018.](#)

3. Our Partners and Stakeholders

NHS Greater Glasgow and Clyde strives to collaborate with regional partners on climate change. We wish to work with stakeholders who play a key role in supporting our services and our drive to net zero and improved resilience through regional adaptation.

NHSGGC cannot deliver its sustainability aims working in isolation. Recognising this, we will work closely with organisations across the public, private and third sectors to achieve our goals.



ClimateReadyClyde



4. Our Impact

All of NHSGGC's activities have an associated carbon footprint which are categorised into **three scopes**:

Scope 1

Covers direct emissions from our owned and controlled operations

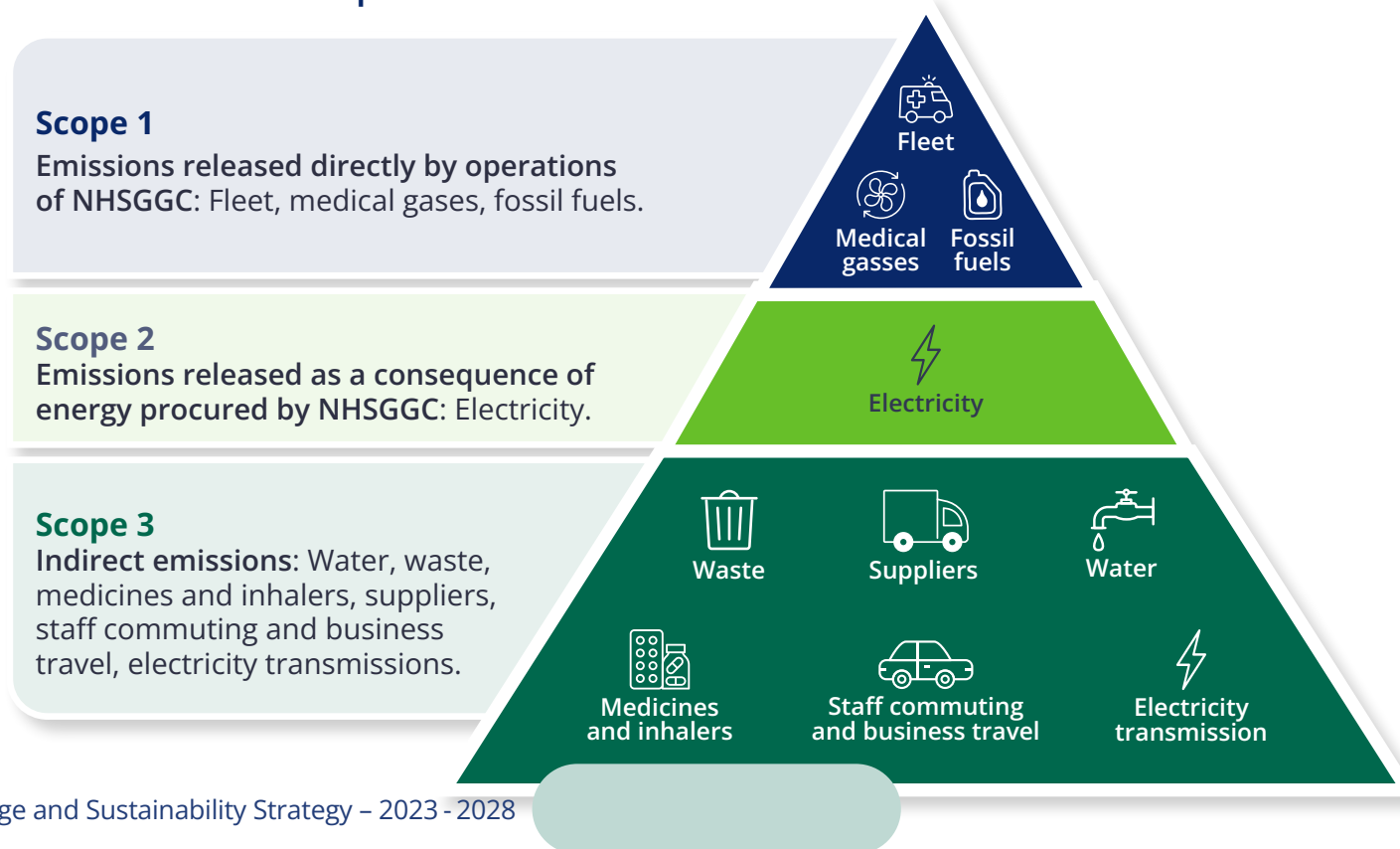
Scope 2

Are indirect emissions from the purchase of energy and subsequent greenhouse gas emissions

Scope 3

Covers all indirect emissions in our upstream and downstream activities such as waste and supply chain.

Non-Exhaustive Emissions and Scope

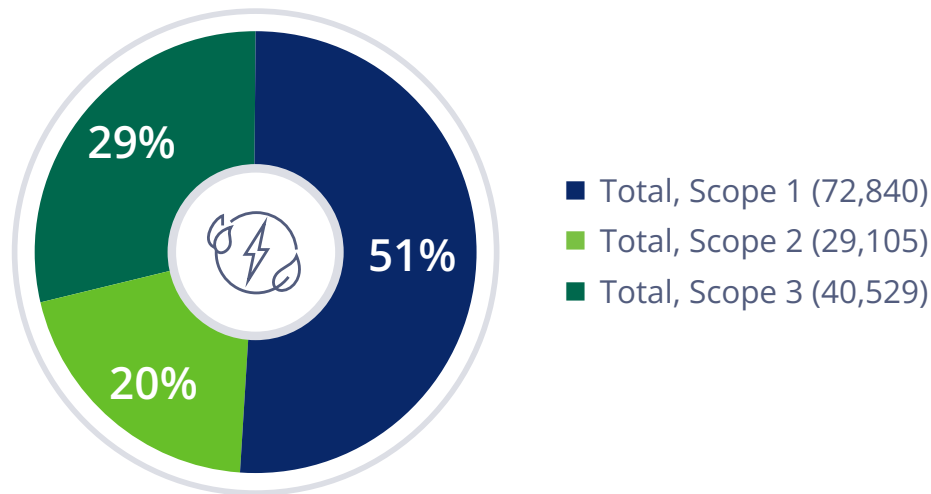


A Policy for NHS Scotland on the Climate Emergency and Sustainable Development (DL 38) requires a just transition to net zero by 2040 and by 2038 for heating our buildings. The data in this strategy is taken from NHSGGC’s annual public bodies submission to the Scottish Government².

As of 2021/2022 our scope 1 and 2 emissions account for **71%** and scope 3 emissions account for **29%** of our total carbon footprint. However, we know it is likely our healthcare supply chain will form the majority of our emissions, possibly up to **60%**, based on analysis carried out by NHS England³.

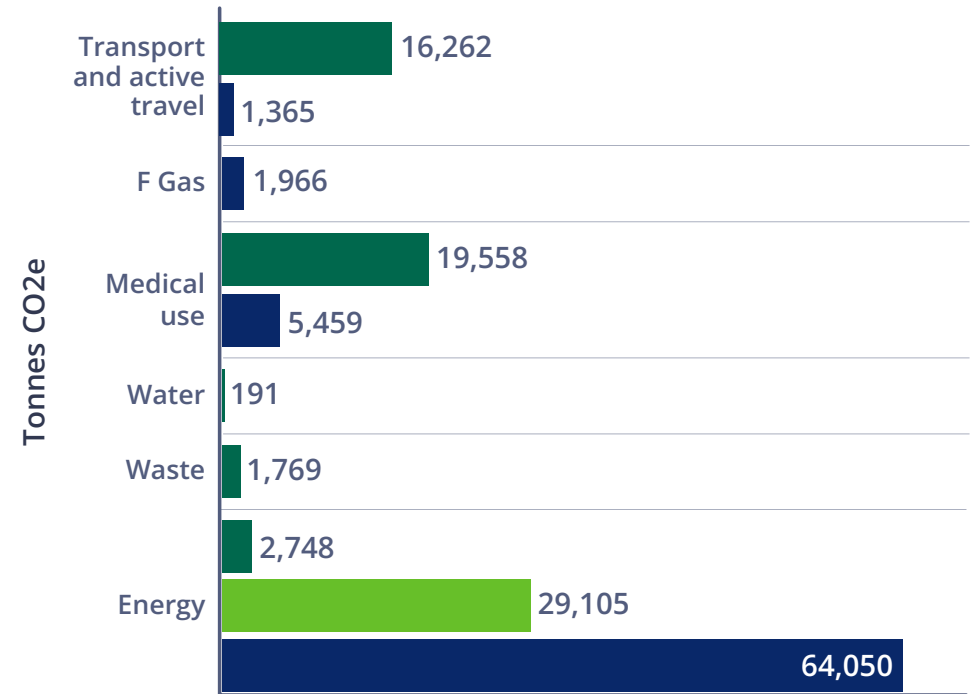
NHSGGC’s Sustainable Procurement Group will work to establish this emission source baseline over the lifetime of this strategy.

Emissions Share for 2021/22



We calculate our carbon footprint from a combination of actual and estimated data using our internal monitoring systems and Public Bodies Reporting submission. We have comprehensive datasets for scope 1 and 2 categories since 2015-16 and any future targets will be set against that baseline year.

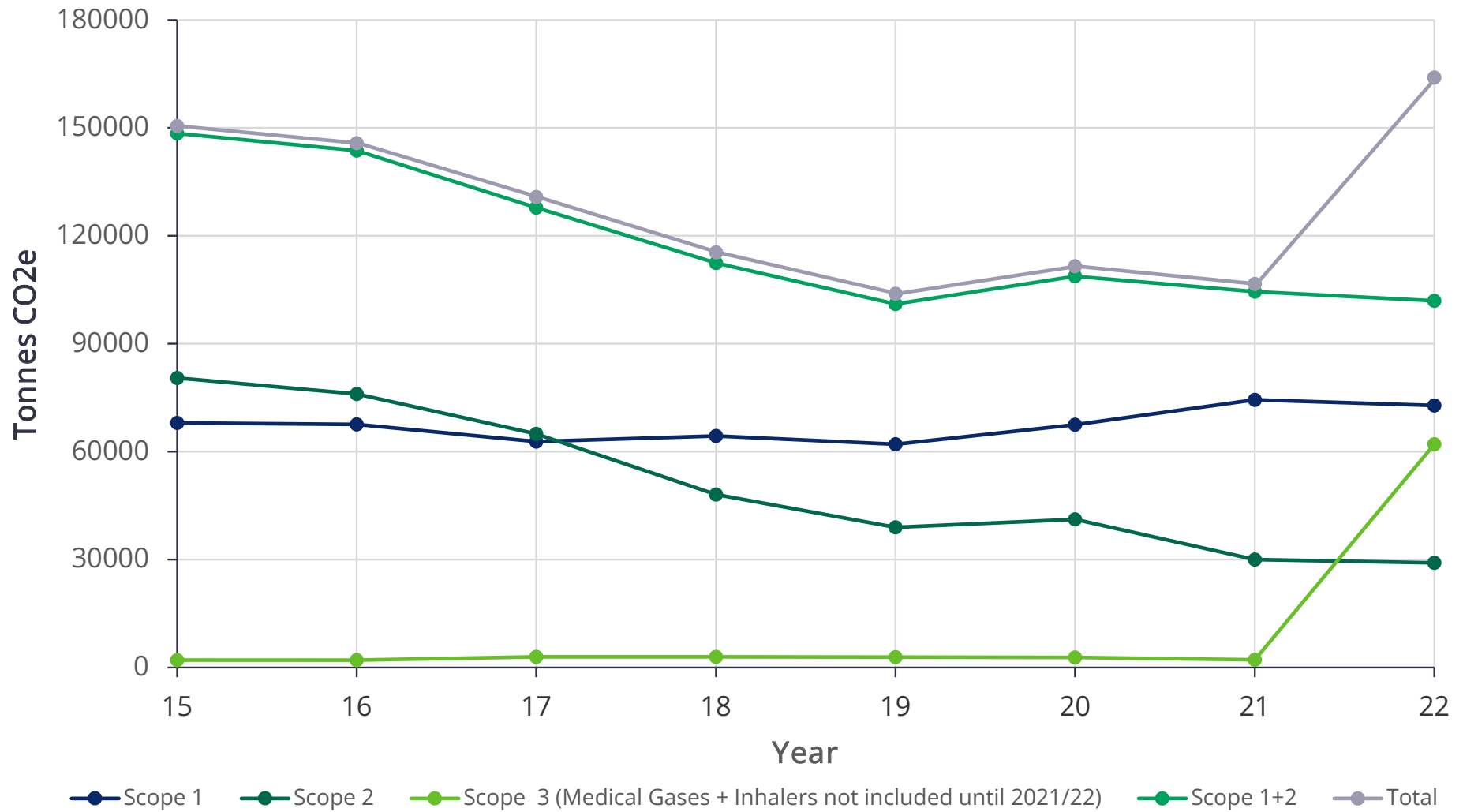
NHSGGC Monitored Emissions FY 21/22



²The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020 (legislation.gov.uk)

³[Roadmap for Suppliers To Reach Net Zero by 2045 » NHS Supply Chain](#)

Emissions by Scope



5. Our Aims

NHSGGC has a responsibility to be ambitious, but also set achievable targets in tandem with our primary focus of first class health care delivery that honours our responsibility and commitment to becoming a sustainable organisation in line with the board's corporate objectives of **Better Care**, **Better Health**, **Better Value** and **Better Workplace**.



**Better
Care**



**Better
Health**



**Better
Value**



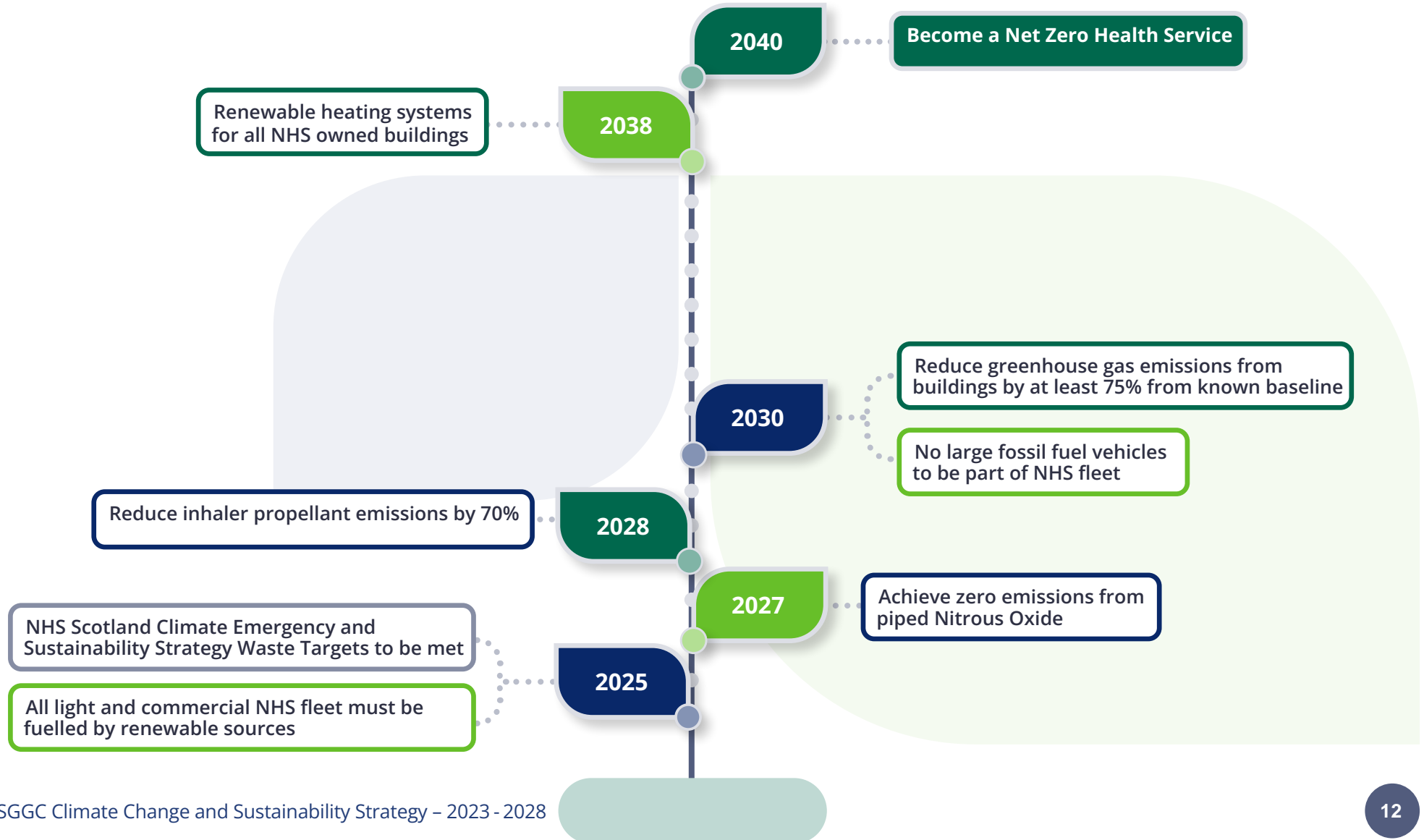
**Better
Workplace**

The aims of the strategy:

- ✔ **Embrace sustainability** as the significant change management process in our decision-making across all parts of the organisation, becoming a business-as-usual function
- ✔ **Undertake improved monitoring, evaluation and target setting** on key operational metrics and deliver enhanced reporting on our activities through our Environmental Management System, demonstrating progress against the objectives contained within the strategy
- ✔ **Develop and deliver a strategic programme of works and initiatives** to reduce greenhouse gas emissions for heat by 2038 and overall net zero by 2040, in line with national aims
- ✔ **Engage and support staff to embrace sustainability** in a professional and personal context through enhanced training, communication and resources
- ✔ **Undertake adaptation, both in our physical assets, services, supply chain and procurement processes**, to make the organisation more resilient to the ongoing effects of climate change and external market forces
- ✔ **Embrace a circular economy approach to procurement**, including enhanced re-use where possible and reducing waste and pollution within operational activities
- ✔ **Improve biodiversity and natural capital** across the NHSGGC outdoor estate and incorporate nature within our buildings where possible.

6. Our Projection

Roadmap to a Net Zero Health Service



7. Our Approach

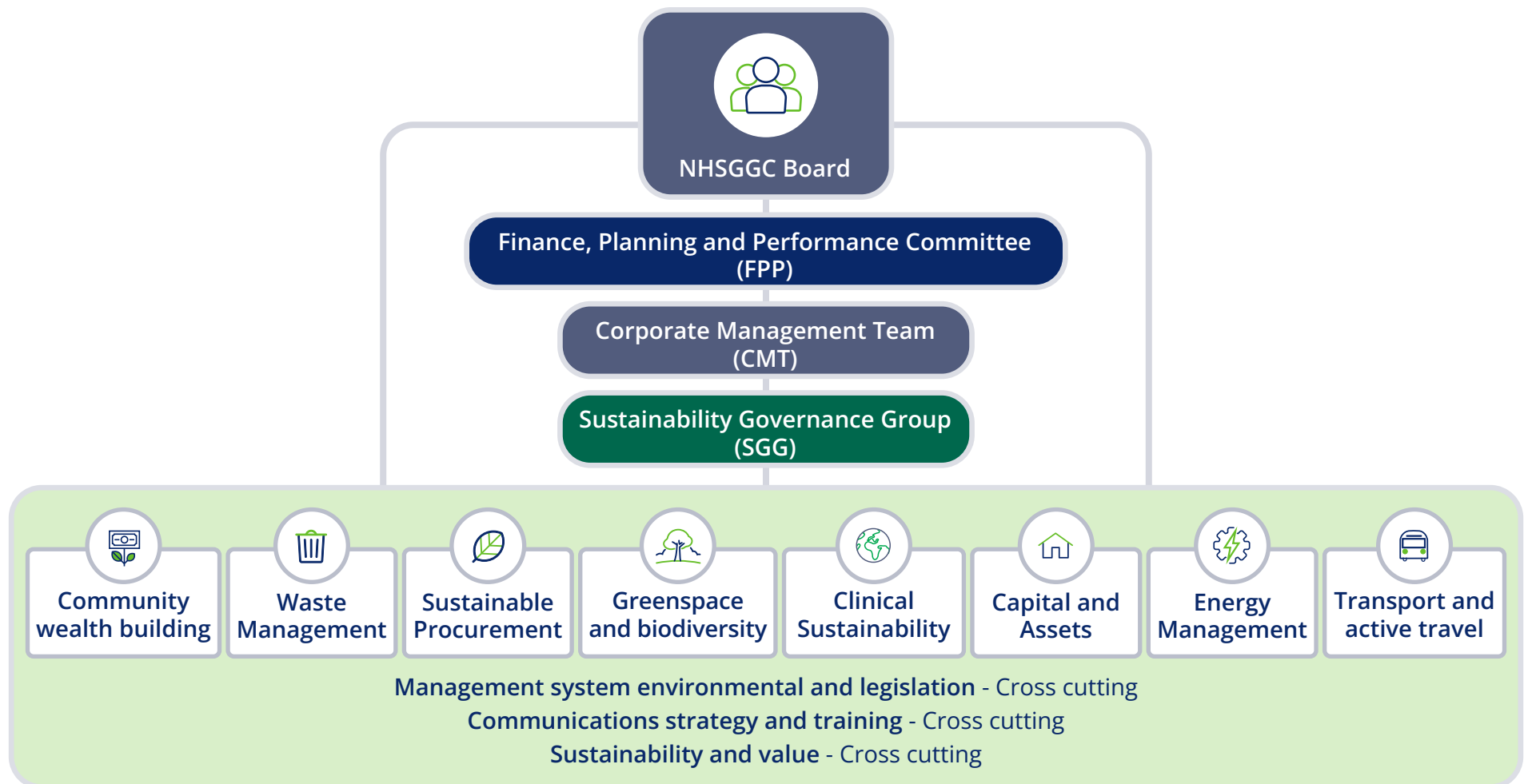
The United Nations Sustainable Development Goals (UN SDGs) is a framework to create a better world. They address the global challenges we face, given the societal function of NHSGGC. United Nations SDG 3 “Good Health & Wellbeing” is material to our mission. We are a pillar in society which can have an influence on many of the positive and negative impacts within the region we operate and why we recognise that climate change is a threat to the services we provide and communities we serve.

Sustainable Development Goals 17 Goals to Transform Our World

1  No poverty	2  Zero hunger			
3  Good health and wellbeing	4  Quality education	5  Gender equality	6  Clean water and sanitation	7  Affordable and cheap energy
8  Decent work and economic growth	9  Industry, innovation and infrastructure	10  Reduced inequality	11  Sustainable cities and communities	12  Responsible consumption and production
13  Climate action	14  Life below water	15  Life on land	16  Peace, justice and strong institutions	17  Partnerships for the goals

NHSGGC's scale and reach means we can both contribute to, and benefit from utilising the UN SDG's systems-based approach. The framework constitutes a core part of the Scottish Government's National Performance Framework. NHSGGC has adopted this approach in establishing our governance structure to deliver on the agenda as part of our corporate objectives. Our approach is system wide, taking account all organisation functions and underpinned by our Environmental Management System and continuous improvement ethos.

NHSGGC Sustainability Governance Structure



Sustainable Values



8. Strategy Development

In response to A Policy for NHS Scotland on the Climate Emergency and Sustainable Development (DL 38) NHSGGC has developed a robust governance framework supported by working groups that carry the objectives set out in national policy, annual and medium-term planning and the agreed commitments from the working groups.

Consultation, development and delivery was undertaken across all associated working groups which constitute NHSGGC's sustainability governance and reporting structure to ensure that it reflects the needs and aspirations of internal and external stakeholders. Staff side partnership engagement was also crucial to ensure workforce collaboration to achieve objectives within this strategy.

The process of developing the strategy involved:

- 1. Understanding the baseline:** Where are we, where do we need to be and how do we get there?
- 2. Setting objectives:** Determining ambitious yet achievable targets for improvement, in line with national and local policy; clinical and property asset strategies, appropriate governance and funding opportunities and based on understanding of existing performance.
- 3. Engagement and consultation:** Gathering feedback from staff, internal and external stakeholders to agree the strategy content
- 4. Implementation:** Bringing together all feedback to finalise the strategy, which will encompass regular evaluations of the overall strategy effectiveness. This is captured in each working group's charter, which aligns to the lifetime of this strategy.

9. Sustainability Framework

Property and Capital Planning

NHSGGC is one of the largest public sector landowners in Scotland. The estate varies enormously and includes Victorian stone buildings, mid-century concrete framed and clad hospital towers and low-level community facilities developed predominantly during the 1970s, 80s and 90s. The challenge to achieve a net zero position from this baseline should not be underestimated and significant focus will be placed on refurbishment and minor works programmes during the life time of this strategy to address this challenge. We are committed to ensuring that our property and assets are optimised to be efficient and to be a benefit to the communities and patients they serve.

We are creating sustainable buildings, both in terms of the emissions associated with construction of new builds and the operation of new and existing assets. Our buildings represent a significant source of emissions and we are committed to achieving net zero emissions across our built assets by 2040. Whilst new buildings can most readily be designed and constructed to address carbon objectives, our existing building stock represents significant elements of embodied carbon already spent and we must carefully balance this in any decisions around sustainability and building solutions.

Addressing the Following UN SDGs

- 7. Affordable and cheap energy
- 8. Decent work and economic growth
- 9. Industry, innovation and infrastructure
- 11. Sustainable cities and communities.



The key decisions at the outset of a project are the most influential in terms of quality, value for money and sustainability. This is why aspects of site selection, new-build vs refurbishment, and orientation are fundamental to the ability to achieve a net zero position as the project develops.

The Property and Capital Planning Team are working to deliver on the key guidance and targets for health building projects in Scotland. These are:

NHS Guidance

- DL(2021)38 policy statement
- NHS Scotland Sustainable Design and Construction Guide (SDaC) SHTN 02-01
- NHS Scotland climate emergency and sustainability strategy 2022 to 2026.

DL (2021) 38 Targets

- All NHS Scotland owned buildings must be heated from renewable sources by 2038
- All NHS Scotland new buildings and major refurbishments must be designed to have net zero greenhouse emissions from the outset
- NHS Scotland bodies must, as a minimum, reduce their associated greenhouse gas emissions to net zero by 2040 or earlier where possible.

Our Objectives

- **Develop and implement a sustainable capital projects plan** which ensures all potential opportunities in new builds and major refurbishments are leveraged for sustainability benefit, including climate change adaptation and net zero
- **Develop and implement a process to assess buildings** (when leasing and procuring) based on their sustainability performance
- **Develop a process to undertake a comprehensive Buildings Performance Evaluation** during our post project evaluation stage and disseminate our finding to others.

Our Progress

- **Site-specific net zero masterplans commissioned for each acute site** as part of Moving Forward Together Implementation Strategy, incorporating plans for green infrastructure, renewable heating systems, enhanced access for public transport and walking/cycling, maximising the use of existing facilities and identifying optimal sighting where new-build is required

- **Clydebank Health Centre** developed to connect into zero carbon district heating system using the River Clyde as a heat source
- **New integrated health, social care and wellbeing facility at Parkhead** designed to achieve net zero in operation and located at public transport fulcrum
- **Developing pathfinder projects** to explore new ways to achieve better sustainability outcomes in the wider capital programme. These pathfinder projects will include:
 - Large-scale new-build (e.g. North East Hub)
 - Small scale new-build (e.g. Bishopton Health Satellite)
 - Typical ward refurbishment
 - High specification non-clinical facility (e.g. Radionuclide)
 - Carbon Improvements by envelope upgrade (e.g. Inverclyde Royal Hospital).



Clydebank Health Centre

How We'll Reach Our Goals

- **Develop site strategies** to optimise existing estate and improve functionality, accessibility and amenity based on clinical requirements
- **Ensure new buildings and major refurbishments are carbon neutral** in construction and reduce, as far as possible, the emissions associated with their operation
- **Explore the use of renewable heating systems** and utilise this technology where appropriate
- **Ensure whole-life considerations**, including embodied carbon and eventual demolition/disposal are taken into account when selecting materials and building elements
- **Adopt a formal process to create/update our approach to assess the sustainability of buildings/locations** that are leased or procured
- **Ensure that Capital projects consider resource efficiency, waste and pollution reduction** and that this is evaluated on a whole life basis
- **Identify opportunities for project waste minimisation**, streamlining operations, increasing efficiency, circular economy initiatives and financial savings
- **Ensure energy models take account of future weather trends** and models to be monitored in use with systems adjusted as required
- **Project development to design in long/short term flexibility**, to incorporate best practice from Sustainable Design and Construction Guide (SDaC) principles and to undergo PP Evaluation
- **Identify clear sustainability lead within Capital Planning**, ensure there are clear sustainable aims and objectives within the team and ensure that staff are suitably trained to achieve these objectives within their projects
- **Create sustainability targets** for projects over the next five years
- **Create a revised post project evaluation template** that includes building performance data
- **Ensure maximum use of project bank accounts within in-scope construction projects** to ensure prompt payment to contractors and sub-contractors.



Social Care and Wellbeing Facility, Parkhead

Greenspace and Biodiversity

NHSGGC is one of the largest landowners across the greater Glasgow area. As such, we have a responsibility to manage our land in a way that benefits both the environment and the communities we serve. Owing to the size of our estate, there are improvements to be made in terms of the contribution it makes to biodiversity and mitigation and adaptation to the effects of climate change.

We are committed to using our land in a way that contributes to biodiversity, carbon sequestration and improves wellbeing.

Addressing the Following UN SDGs

- 3. Good health and wellbeing
- 9. Industry, innovation and infrastructure
- 11. Sustainable cities and communities
- 13. Climate action
- 15. Life on land.



Our Objectives

- **Encourage estates and grounds staff, through education and training, to manage hospital campus sites in a way that improves the extent and quality of greenspace**, increases contribution of estate to biodiversity and improves the value of the ecosystems services the greenspaces provide. Also ensure greenspace is managed to increase provision and improve access and regular use by staff, patients and local communities
- **Ensure greenspace management is informed by a wider understanding of the current greenspace extent, quality, and biodiversity** value across NHSGGC estate
- **Ensure socio-economic deprivation is taken into account** when planning for greenspace improvements
- **Ensure greenspace is managed** to assist with climate change mitigation and adaptation
- **Seek to establish dedicated funding** to ensure working group deliverables can be achieved. Funding which rolls onto next financial year will be secured to ensure project delivery isn't restricted by financial year deadlines
- **Embed greenspace and biodiversity improvements** into capital planning decision making
- **Promote the Greenspace and Biodiversity Work Group** as a key part of the sustainability communications strategy
- **Ensure regular reviews of the progress of greenspace interventions** to assess the added value of greenspace and demonstrate the impact of greenspace enhancements on health and wellbeing
- **Collaborate with local partners** to improve the natural links between NHSGGC greenspace and other local areas of greenspace.

Our Progress

- Greenspace strategies developed for several acute sites, including QEUH, RAH sustainable management plan for greenspace and Leverndale
- Funding accessed from Scottish Government, Green Exercise Partnership, Sustrans, NHSGGC Endowments and estates to deliver landscape improvement projects.

Example case study projects:

- A first phase of landscape improvements aiming to enhance wayfinding and wellbeing at Leverndale Hospital has been led by clinical staff at the site and is now complete. Funding has been secured to deliver a second phase
- Works to enhance and restore a pond and its under-utilised surroundings at the Royal Alexandra Hospital are complete and the site is now well used by patients and staff
- A high-level spatial landscape design has been developed and costed for the Queen Elizabeth University Hospital, and funding is now being sought to take this forward to detailed design and construction.



How We'll Reach Our Goals

- Undertake GIS mapping of all of the land owned by NHSGGC, including its extent, quality, accessibility and biodiversity by 2025
- Make significant progress towards utilising our existing outdoor estate as a method of adaptation to the effects of climate change, including retrofitting green infrastructure to combat increased flooding, and passive cooling systems to combat increased incidences of high temperatures by 2030
- All future estates will consider the NHS Sustainable Design and Construction Guide
- Make developments towards developing and making use of our outdoor estate as places for health and wellbeing; for patients, staff and visitors
- Develop sustainable management strategies for each of our acute sites to make the most of our existing assets by 2025.



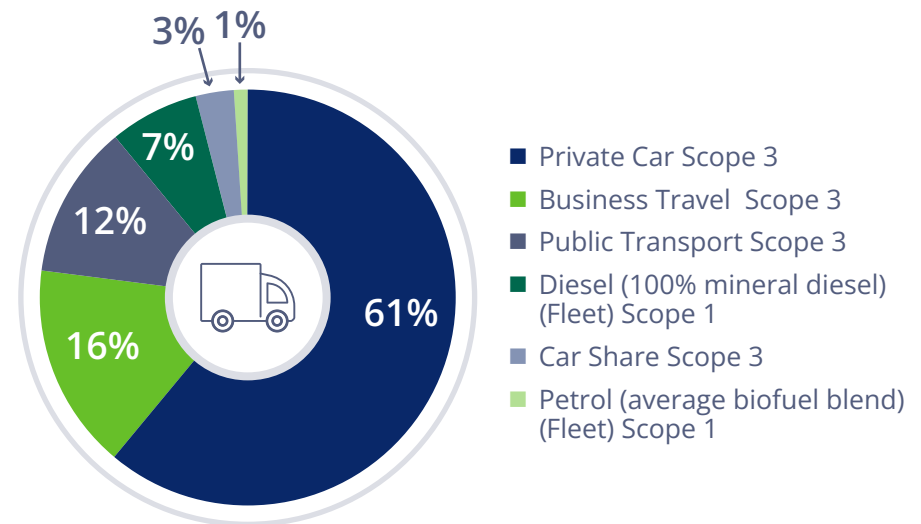
Transport and Active Travel

Emissions from travel comprise **12%** (17,627 tonnes CO₂e) of our overall emissions. This includes emissions from transport of goods (e.g. laboratory specimens from GP practices, medical equipment and laundry) as well as patient transport and staff travel. Due to the size of the geographical area covered by NHSGGC, some element of travel and transport will always be required. However, there are a number of ways the associated emissions can be reduced.

The current [NHSGGC Digital Health and Care Strategy](#) establishes objectives aimed at supporting our staff and patients in implementing solutions that reduce the necessity for travel. We endorse a hybrid working policy, where applicable and strive to enhance our online consultation options, all while actively minimising our scope 3 emissions, which encompass staff and patient commuting as well as business travel. The strategy addresses challenges like inflation, health and wellbeing by promoting various forms of active travel among our staff and patients. By encouraging active travel, we contribute to a wider framework focused on improving health and promoting social equity.

This will not only help us meet our greenhouse gas emission targets, but through embracing active travel and reducing the need to travel, we can also have an impact on the wellbeing of patients and staff.

Emissions relating to the Transport and Active Travel Group



Addressing the Following UN SDGs

- 🌿 3. Good health and wellbeing
- 🌿 7. Affordable and cheap energy
- 🌿 9. Industry, innovation and infrastructure
- 🌿 11. Sustainable cities and communities
- 🌿 13. Climate action.



Our Objectives

- **To progress a set of NHS Scotland active travel improvement actions** which support all NHS Boards to:
 - Have identified active travel routes to, and infrastructure at, all major sites by the end of March 2026
 - Implement a range of actions to promote and encourage NHS staff, patients and visitor to choose active modes of travel by the end of March 2026
 - Increase the proportion of active travel journeys to major sites by the end of March 2026.
- **To progress a set of NHS Scotland public, community and shared transport improvement actions** which supports all NHS Boards to:
 - Implement a range of actions to promote and encourage NHS staff, patients and visitors to choose public, community and shared transport by the end of March 2026
 - Increase the number of public, shared and community transport links to underserved NHS sites by the end of March 2026.
- **Progress a set of NHS Scotland fleet decarbonisation actions** which supports all NHS Boards to:
 - Operate only small and light commercial vehicles that are powered by renewable alternatives by the end of December 2025.
- **Progress a set of NHS Scotland business travel decarbonisation actions** which supports all NHS Boards to:
 - Provide staff with access to pooled electric vehicles, eBikes and eCargo bikes for NHSGGC business travel by the end of March 2026
 - Reduce the number of kilometres travelled by NHS logistics services by an agreed percentage by the end of March 2026
 - Reduce emissions from NHS business by the end of March 2026.



Our Progress

- **Uptake of the Cycle 2 Work Scheme has increased** during the pandemic
- **Reviewing and implementing more secure bike storage** across the estate
- **Creating walking and cycling maps for each site**, indicating links to National Cycle Routes and walking paths
- **Over 100 vehicles in the electric fleet**
- **Three transport hubs established** to reduce courier mileage by incorporating external deliveries into existing fleet runs
- **Promoting annual season tickets for public transport** and looking into increasing the availability of discounted travel through working with SPT and local transport operators.

How We'll Reach Our Goals

- **Reduce the need to travel through:**
 - Promoting home working where possible and desired
 - Embracing remote consultation where appropriate.
- **Promote active travel** as a healthy, safe and convenient method of transport for patients and staff
- **Decarbonise the NHSGGC fleet**
- **Plan for adaptation to the effects of climate change** on access to the estate, including the physical infrastructure required.

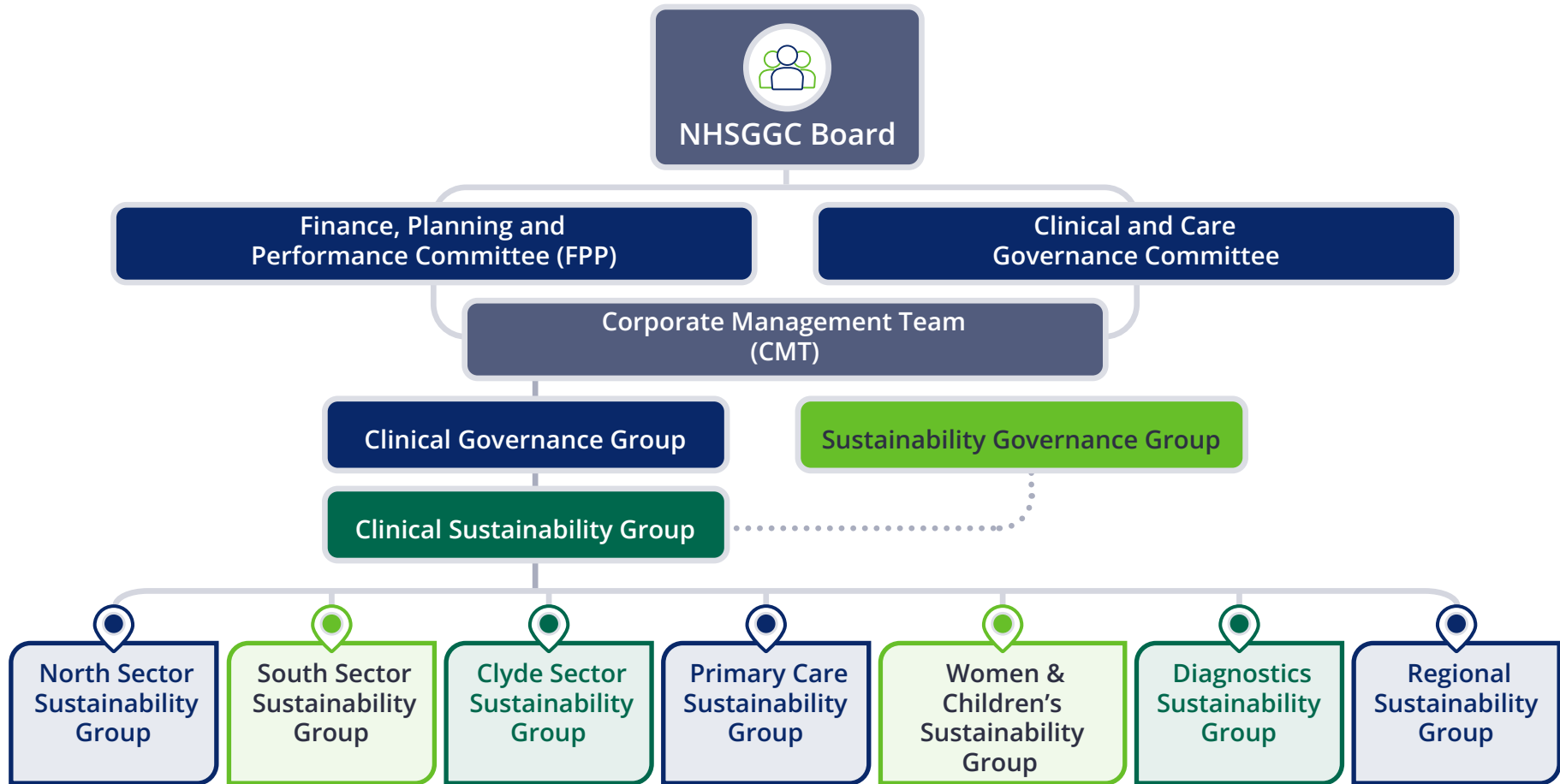
Clinical Sustainability

Clinical Sustainability is a key component within NHSGGC's sustainability framework. It is the focal point and catalyst in the development of a sustainable health service. The Clinical Sustainability Group oversees the delivery of the National Green Theatre Programme objectives (Bundles A – E) contributing to the aims of NHS Scotland's Sustainable Development Policy and Strategy in developing a sustainable health service.

The Clinical Sustainability Group strives to broaden this remit and undertakes any clinical sustainability or quality initiative that meets its triple bottom line approach: Staff/patient improvement, financial sustainability and environmental benefit.

By changing how we deliver our clinical services we can empower people to have more control over their health and achieve a long-lasting change which is sustainable and reduces health inequalities.

Clinical Sustainability Structure



Addressing the Following UN SDGs

- 3. Good health and wellbeing
- 10. Reduced inequality
- 11. Sustainable cities and communities.

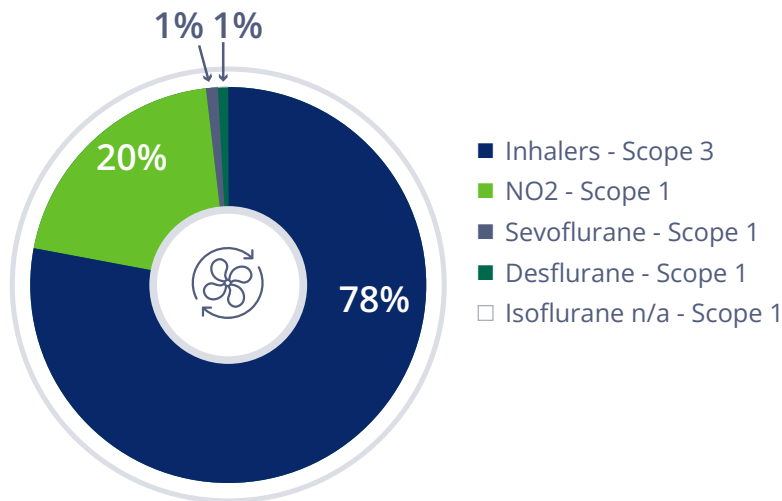


Our Objectives

Through implementation of National Green Theatre Bundles, NHSGGC will:

- **Reduce the carbon footprint/emissions of theatres by eliminating the use of desflurane, the most contaminating anaesthetic gas, except where clinically necessary**
- **Aim to decommission Nitrous Oxide (N2O) Manifolds**
- **Save costs, or implement actions that are cost neutral**
 - Switch off of out of hours Heating Ventilation Air Conditioning (HVAC)
 - Switch off of out of hours Anaesthetic Gases Scavenging Systems (AGSS).
- **Increase productivity in theatre activities**
 - Change to Surgical Fluid Suction System
 - Introduce waste segregation.
- **Change from iv to oral route for perioperative paracetamol where appropriate**
- **Implement the Scottish Quality Respiratory Prescribing guide across primary care and respiratory specialities to improve patient outcomes and reduce emissions from inhaler propellant.**

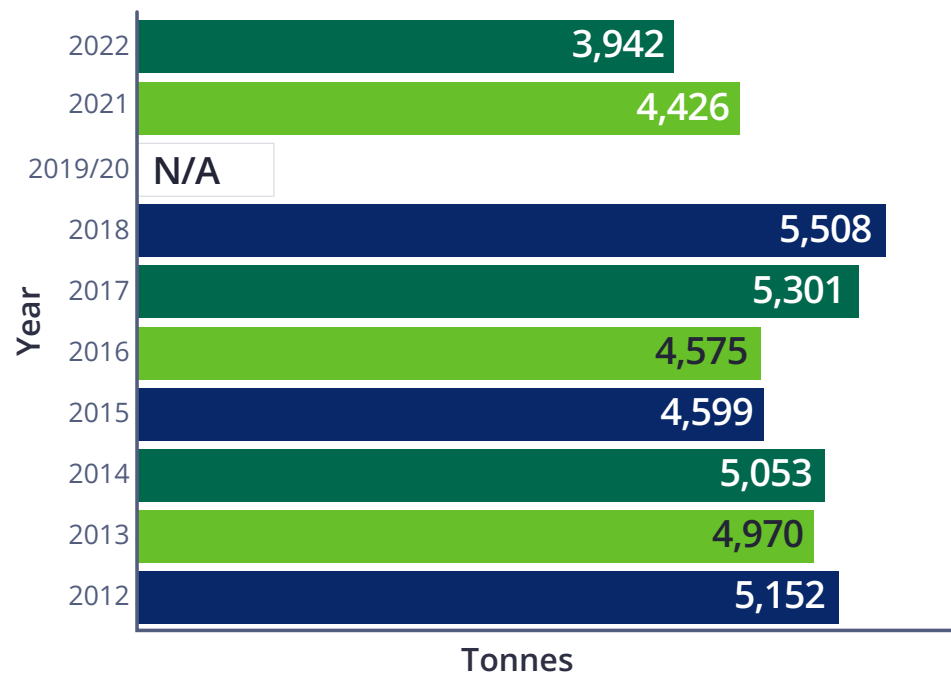
Medical Gas Emissions for 2021/22



Our Progress

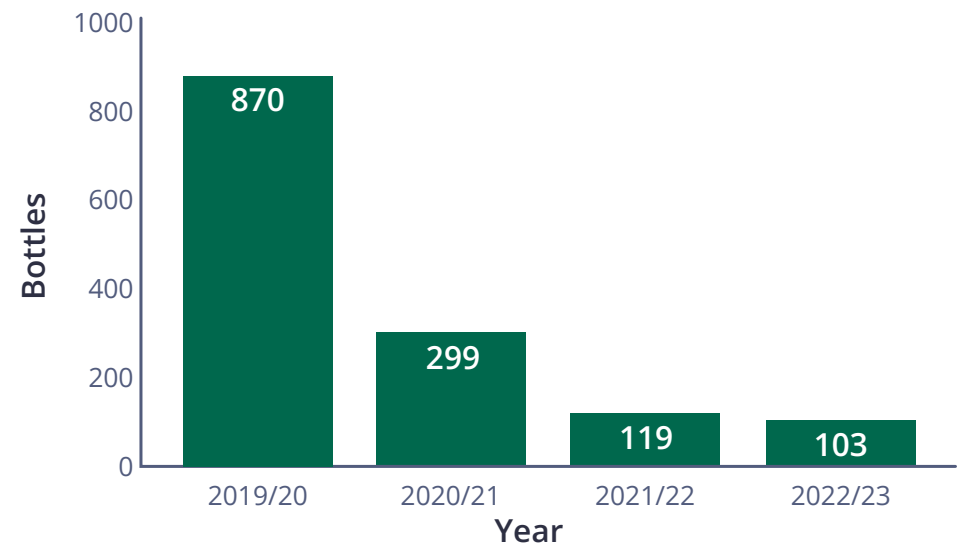
- **Reduced Clinical Waste tonnages:** 2022 has seen the lowest levels of Orange Waste since 2012. This has been achieved through improved segregation practices and circular economy techniques, however there is still room for improvement

Orange Bag Tonnage by Year



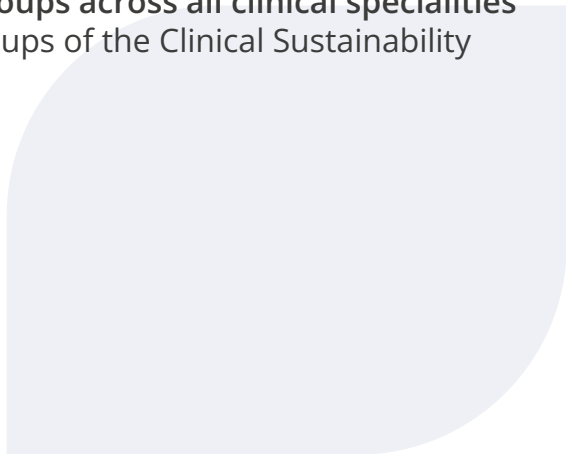

- **Roll out of fluid suction system in QEUH theatres** as first phase of wider roll out to replace VacSacs in high fluid theatres. This is a circular system that significantly reduces plastic consumption and disposal within the supply chain, as well as benefits to staff and patient environment in theatres
- **Medical gases contribute to 3.8% of the total emissions** reported in the 2022 Public Bodies Report. A further **13.7%** is attributed to inhalers⁴. On this front NHSGGC has made significant progress in decreasing desflurane usage, as seen below.

Desflurane Usage by Year



⁴NHS Scotland Health Boards Medical Gas Report 21/22

How We'll Reach Our Goals

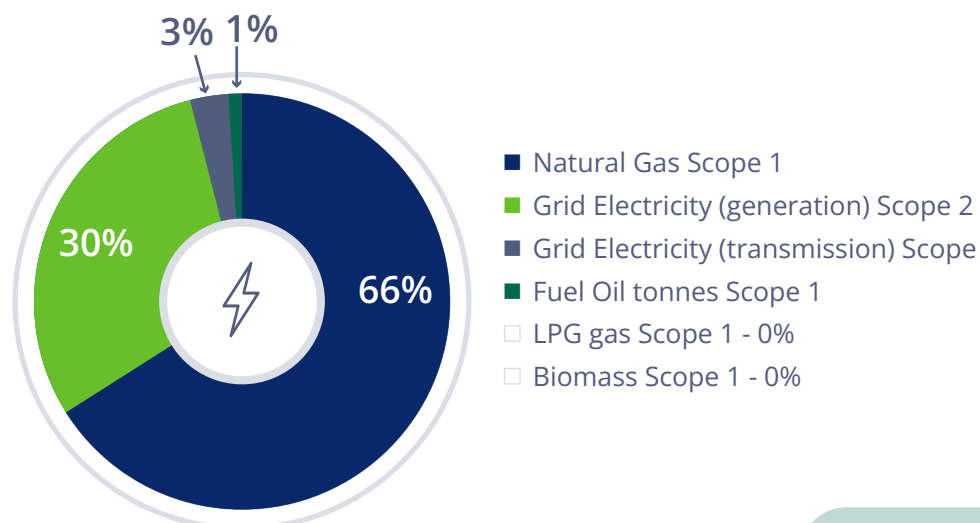
- **Reduce the harm of Metered Dose Inhalers (MDIs).** NHSGGC Clinical Sustainability Group has approved a strategic plan to tackle the environmental impact of MDI's as a core part of this work stream
 - **Promote NHSGGC's Clinical Sustainability Group and clinical governance arrangements** to support transformational change required to support National Green Theatre ambitions
 - **Deputy Medical Director** as Chair and Head of Sustainability as Co-Chair, ensuring clinical and non-clinical collaboration
 - **Established delivery groups across all clinical specialities and services** as sub groups of the Clinical Sustainability Group.
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Energy Efficiency and Net Zero for Heat

The largest component of NHSGGC measured carbon footprint arises from use of natural gas (71% of all emissions and 77% of all building energy emissions). Decarbonisation of heat is going to be the major challenge going forward. Natural gas is used for space heating across most of the built estate, including the acute hospitals, primary care buildings and for process heat in some of the specialist facilities including laundry and the decontamination centres.

NHSGGC has already made significant progress to reduce emissions as outlined below, however much of the progress to date has been on a “spend to save” basis. This has meant that the primary focus to date has been on reducing electricity consumption through projects such as LED lighting and improvement in plant efficiency and control.

Emissions relating to Energy 2021/22



Addressing the Following UN SDGs

- 7. Affordable and cheap energy
- 9. Industry, innovation and infrastructure
- 11. Sustainable cities and communities
- 12. Responsible consumption and production.



Our Objectives

- To begin the implementation of a building energy transition programme to deliver energy efficiency improvements, increase on-site generation of renewable electricity and decarbonise heat sources
- Reduce focus on financial payback as a means of evaluating renewable projects whilst increasing focus on heat decarbonisation projects
- Improve the data collection processes and data quality of heat and power elements within the carbon emissions boundary
- Align governance and budget responsibility for achieving Heat and Power decarbonisation; interim targets - 2025, 2030, 2035 and 2038
- Collaborate with local and national organisations, such as local authorities, private sector, third sector and Scottish Government, CLES, and local employability partnerships to benchmark against other comparable organisations and promote regional working.

Our Progress

- All EPC's are in process of being updated to reflect new dynamic certificates starting off with Glasgow Royal Infirmary (GRI)
- Three major Carbon Reduction Projects (QEUH WWHP, Stobhill and Leverndale ASHP) proposals are in place to take to Outline Business Case (OBC)
- Reviewing various energy and renewable frameworks to widen range of technologies
- An ongoing annual spend to save programme of energy efficiency and carbon reduction projects
- NHSGGC eHealth Dept have agreed both a Digital Strategy and a Cloud Strategy which will result in Cloud Technologies being used, where possible, and any new Infrastructure which will be sited in Computer Rooms will have an element of Power Consumption reduction included within tenders.

How We'll Reach Our Goals

- Utilise outcomes from clinical infrastructure strategy (Moving Forward Together) to accurately cost the retrofitting of heating systems for sets of buildings that are representative of the NHSGGC estate
- Energy team to participate and support elements of the national [Green Theatres Programme](#)
- Advance a number of current proposals for the introduction of a renewable district heating schemes
- Advance the Waste Water Heat Pump project at the QEUH Campus
- Replace building Energy Performance Certificates (EPC's) with updated dynamic EPCs with an associated IES Scan Energy Model
- Consider suitable renewable technologies in all construction and major refurbishment projects
- Carry out Monitoring and Valuation (M&V) of recent projects to ensure building performance is in line with the controls strategy
- Work with colleagues in eHealth as they develop and implement their 'Cloud Strategy' which suggests a 'cloud first' approach to infrastructure provision. This will result in less power and cooling requirements within the NHSGGC computer rooms.

Sustainable Procurement

Based on NHS England studies⁵ the purchase of goods and services accounts for **62%** of NHS supply chain total carbon footprint. Therefore, there needs to be clear focus and consideration in tackling this part of our total greenhouse gas emissions.

This source of carbon emissions is grouped as being a part of the NHS's carbon footprint plus or sources that are indirectly controlled by NHS Greater Glasgow and Clyde.

Addressing the Following UN SDGs

- 9. Industry, innovation and infrastructure
- 12. Responsible consumption and production.



Our Objectives

Embed sustainability criteria into local contracts

- **Embed sustainability requirements within local tendering activity** by ensuring that these are built into contract selection and/or award criteria and ensure whole lifecycle costing methodology is used in commercial criteria where appropriate
- **Ensure all Procurement Officers within Procurement and devolved departments have undertaken Procurement Climate Literacy Training** and are aware Scottish Government Sustainable Procurement Tools

Reduce carbon output of our supply chain

- Initial indications of [CO2A Analysis](#) Tool inferred a carbon output on £958m non-pay spend of 380,000 tonnes (0.397 tonnes per £ of spend). Refine output and create carbon reduction plans (including product composition and packaging) with our largest impacting suppliers by category of spend for initial 5% reduction
- Procurement team to participate fully in the national [Green Theatres Programme](#)
- Continue with the [Warp-It](#) programme but undertake refreshed appraisal as to cost/benefit and future viability.

Increase Sustainable procurement communications

Develop a communications plan to highlight work being undertaken by Procurement in order to raise awareness and gain traction.

Fair Work Practices

Full implementation of SPPN 6/2021 (Fair Work First implementation) within local contract tendering process.

Ethical Standards within Supply Chain

- Ensure maximum use of Project Bank Accounts within in-scope construction projects to ensure prompt payment to contractors and sub-contractors in line with [SPPN 10/2016](#)
- Ensure Ethical Standards are enshrined in all local contracting activity where appropriate, including Human Rights, Modern Slavery, Whistleblowing, application of the Serious Organised Crime Protocol and use of Fairtrade products.

⁵[Health care's response to climate change: a carbon footprint assessment of the NHS in England - The Lancet Planetary Health](#)

Adherence to Government Buying Standards

Adherence wherever possible to the [Government Buying Standards](#) which cover:

- Food and catering services
- Construction projects and buildings
- Electrical goods
- Furniture.

Increase spend with local businesses

Work with the [Supplier Development Programme](#) as a full member (the first Health Board to achieve such status) throughout 2023/24 on initiatives to engage with suppliers through Meet The Buyer events and to promote local contract opportunities amongst Scottish/local SMEs.

Maximise Community Benefits

Ensure that wherever appropriate, local contracts include Community Benefits clauses. Ensure that the [Community Benefits Gateway](#) is referenced with Invitation to Tender documents.

Increase spend with supported businesses

Develop a plan to increase spend with supported businesses using the flexibility within the Procurement Regulations referenced in [SPPN 04/2017](#) to make direct awards to such entities.

Ensure Procurement contributes to the Community Wealth Building and Anchor Institution agendas

Work with Public Health and Health Improvement colleagues on how Procurement can play its part in the Community Wealth Building and Anchor Institution agendas.

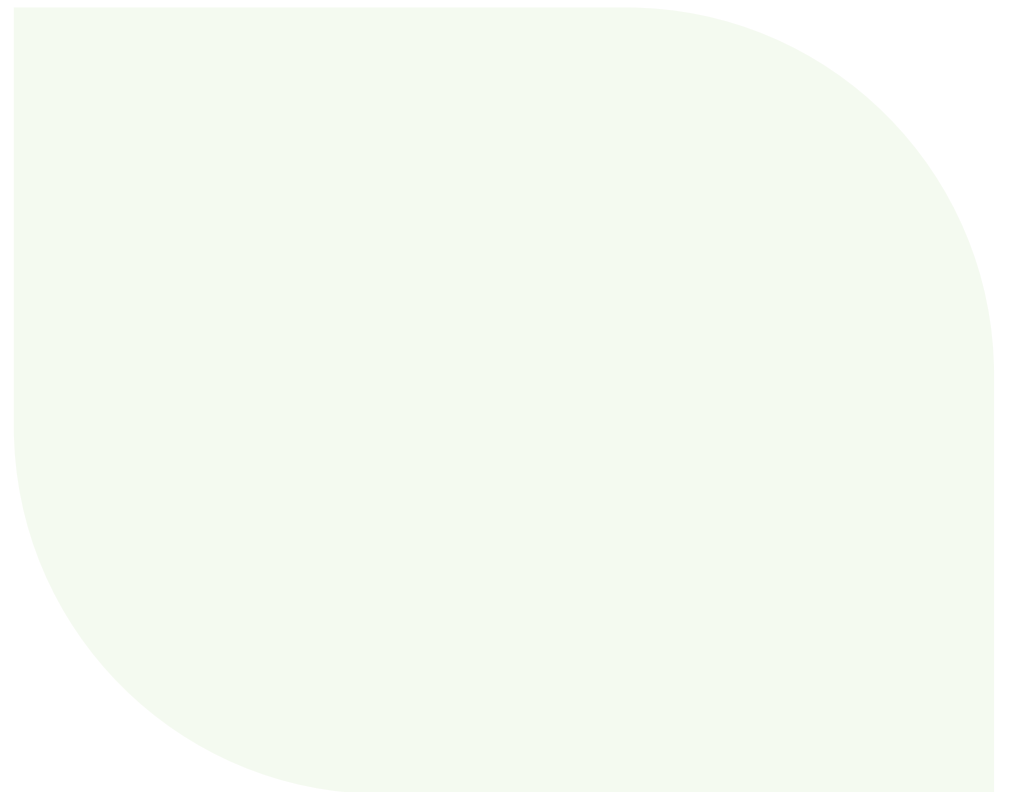
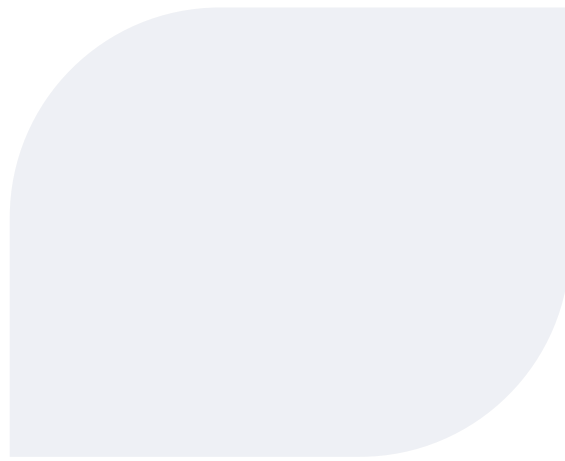
Our Progress

- **Invested in a Carbon Footprint Tool** – allows NHSGGC to identify where we are being wasteful with carbon and taking action to reduce the waste and emissions
- **Increased and improved measuring and monitoring of associate carbon emissions** from all goods and service providers
- **Changed of pack size to National Uniforms to deliver a 50% plastic packaging reduction** and cost cuts of waste disposal
- **Committed to reducing our reliance on single-use equipment**, investing in take-back schemes and reuse schemes where possible.

How We'll Reach Our Goals

- **To make net zero a key consideration for all procurement activities** and no longer purchase from suppliers that do not meet or exceed a commitment to be net zero by 2038
- **Increase and improve the measuring and monitoring of associate carbon emissions** from all goods and service providers by 2022 through use of CO2 analytics
- **Review the tendering process** to increase the scope and weight given to contracts and product selection that support and directly reduce associated carbon emissions
- **To only purchase products or services from suppliers that are aligned with net zero commitments by 2038**
- **Endeavour for contract meetings to be carbon neutral** where possible by 2023
- **Review and select only procurement frameworks that have committed to a net zero target**

- **Commit to reducing our reliance on single-use equipment**, investing in take-back schemes and reuse schemes where possible
- **Continue close working with Public Health and Health Improvement** who are part of the Health Anchors Learning Network (HALN) considering our spend with local suppliers and how we will continue to diversify our supply chain and grow our engagement with SMEs - currently, 12% of our £650m trade spend is with suppliers who have an HQ in one of six local authority areas.

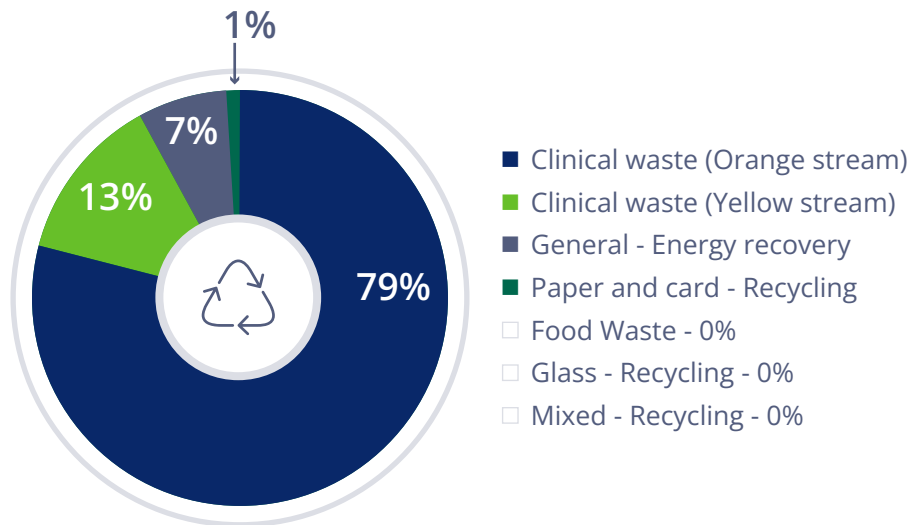


Waste Management

NHSGGC produces c5000T of clinical waste per year and c5000T of non-clinical waste per year, from a wide range of acute and primary healthcare facilities. Waste comprises of four main streams: **yellow** and **orange** stream clinical wastes, **mixed recyclate** and **residual waste**.

Although waste arisings from the provision of healthcare are unavoidable, there are steps that can be taken to reduce the carbon burden of waste arisings such as improving source segregation and increasing recycling rates.

Emissions relating to Waste Management 2021/22



Addressing the Following UN SDGs

- 🌿 11. Sustainable cities and communities
- 🌿 12. Responsible consumption and production
- 🌿 13. Climate action
- 🌿 14. Life below water
- 🌿 15. Life on land.



Our Objectives

- **Decrease level of NHSGGC wastes being sent to landfill** - maximum of 5% of all waste to landfill by 2025
- **Identify and implement circular economy initiatives** - new opportunities to minimise waste, reduce scope 3 emissions and enact circular economy principles
- **Further develop dry mixed recycle programme** - Increase recycling rate to 70% by 2025
- **Build upon supplier and contractor relations** and engage to identify new opportunities
- **Reduce domestic waste** arising by a minimum of 15%, and greater where possible, compared to a financial year 2012/2013 baseline
- **Develop monitoring and minimisation for all waste streams** e.g., WEEE, construction and food waste
- **Horizon scanning** – identify risks and opportunities in how NHSGGC handles its waste
- **Reduce scope 3 emissions** to assist NHSGGC to achieve net zero target
- **NHSGGC will seek to reduce pharmaceutical waste**, where feasible, by working with procurement and suppliers to reduce packaging and will work with clinicians to explore realistic medicine and implementing circular economy principles.

Our Progress

- **Monitoring clinical and non-clinical waste** in terms of tonnage, costs and carbon emissions by reporting monthly for each acute site and quarterly for all acute and primary health care sites
- **Working together with on-site business to reduce wherever possible single-use plastic cutlery and disposable food containers** and encouraging the use of ceramic mugs to sit it at canteen areas
- **An internal audit programme including Waste Composition Analysis** (for non-clinical waste) in acute sites to identify inefficiencies and to better understand current waste and recycling stream composition
- **Developing online (LearnPro) and in person (Toolbox Talk's) training** for all members of staff to increase knowledge on waste segregation
- **Implementing communication campaign** to highlight proper segregation of clinical wastes
- **Increasing uptake Dry Mixed Recycle system** to all areas of NHSGGC
- **Exploring options for alternative disposal methods of clinical and non-clinical wastes**
- **Working with contractors to find ways to reduce, reuse and recycle construction waste**
- **Implementing refresher training for waste yard staff** and those with waste management responsibilities
- **Redesigning posters, signage and guidance** to improve segregation.

How We'll Reach Our Goals

- **Analyse the data to identify opportunities to minimise waste** and to maximise the proportion of our waste that is sent for reuse and recycling
- **Report our performance against national waste and recycling targets**
- **Monitor waste reduction initiatives**
- **Review the provision of recycling waste containers on our estates** and maximise recycling service provision wherever possible
- **Implement annual communication and behaviour change campaigns** to maximise reuse and recycling and promote proper segregation of wastes
- **Require our waste contractors to report the end destinations of our waste** so that we can ensure that it is sent to reputable facilities and that it does not cause environmental harm here or overseas
- **Require our contractors to report the contamination levels of our waste** so that we can understand and address any issues
- **Update our policies to reflect anticipated changes to national waste policy** (extended producer responsibility, deposit return, plastics tax)
- **Identify current trends and opportunities to reduce waste and material wastage** through circular procurement and increasing re-use
- **Develop food waste action plans**
- **Increase waste segregation at point of use**
- **Introduce reusable sharp boxes**
- **A new waste contract that provides opportunities to recapture recyclable items**, allowing practices to contribute to the circular economy.

Community Wealth Building

Community Wealth Building is an economic approach to delivering on the wellbeing economy agenda, which supports better and more equal health through economic activity, recognising the power of anchor organisations such as NHSGGC as employers, procurers and land and property owners.

The five principles of Community Wealth Building are: plural (shared) ownership of the economy; making financial power work for local places; fair employment and just labour markets; progressive procurement of goods and services; and socially productive use of land and property. This brings together elements covered above including procurement and capital planning, with a focus on improving health through economic activity.

There is an increasing national, regional and local policy ambition to unlock the potential of anchor organisations including NHSGGC, as an integral part of the recovery planning of Health and Social Care and to support recovery and renewal and collaboration based on CWB principles.

Anchor Institution

The term anchor institutions refers to large, typically non-profit, public sector organisations whose long-term sustainability is tied to the wellbeing of the populations they serve⁶. NHSGGC are committed in our role as an anchor organisation which acts on behalf of the local communities and local areas we serve, which goes beyond healthcare provision. Our strategy will ensure NHSGGC works closely with our local partners, ensuring our property and assets positively benefit our local population. Our Anchors Strategy will be a route to deliver CWB outcomes, with a particular focus on employment, procurement and land and assets.

Using our buildings and estates to support communities

NHSGGC occupies one of the most expansive NHS estates in Europe. We will work closely with local and national strategic partners to ensure our estates are welcoming, attractive, green places which are accessible, safe and high-quality.

Working closely with local partners

NHSGGC will work closely and collaborate with our partnerships, with a joined-up approach to delivering sustainable care across Glasgow and the west of Scotland.

Addressing the Following UN SDGs

- 3. Good health and wellbeing
- 8. Decent work and economic growth
- 9. Industry, innovation and infrastructure
- 10. Reduced inequality
- 11. Sustainable cities and communities.



⁶[The Health Foundation, 2021.](#)

Our Objectives

- **To work with key service leads to develop understanding of Community Wealth Building** and the role of NHSGGC
- **To identify new initiatives to deliver community wealth building** and enhance NHSGGC's role as an anchor organisation
- **To influence initiatives across the NHSGGC** so that community wealth building and NHSGGC's role as an anchor organisation begin to become embedded in the planning and delivery of mainstream services
- **To develop and maintain relationships with other local and national organisations**, such as Glasgow City Region, local authorities and Scottish Government, CLES, and local employability partnerships to keep up to date with policy developments and to benchmark against other comparable organisations
- **To raise awareness of CWB** and anchor organisation across NHSGGC
- **To identify opportunities to link in with the Greenspace and Biodiversity working group**, for example by supporting food growing projects that greenspace improvements that promote social cohesion and community wealth
- **Re-establish our employability planning structures**, to ensure that work is coordinated across the Board/six HSCP areas and with the six Local Employability Partnerships.

Our Progress

- **Inclusive employment practices** such as workforce equalities, staff experience, HR policies, developing the young workforce, recruitment, and targeted support for Kickstart, Modern Apprenticeship, Project Search, Centre for Inclusive Living, and Work Experience placements
- **Committing to paying a fair wage:** NHSGGC already have Living Wage Accreditation; encourage local workplaces, partner organisations and suppliers to do the same
- **Building progression routes for employees:** such as career pathways, succession planning and career development, access to learning support
- **NHSGGC Community Benefits:** employability CBs include apprentice places and locally targeted recruitment. Working with Scottish Government to identify barriers and solutions
- **National Community Benefits Gateway:** NHS Scotland's online portal was launched in summer 2021. NHS Scotland suppliers are matched with needs of NHSGGC third sector organisations
- **Diversifying our supply chain:** Partnership with the Supplier Development Programme to deliver a new project to diversify our supply chain: Encourage a wide pool of suppliers, support more local SMEs to become suppliers and focus particularly on increasing diversity
- **Procurement have set targets for 22-23 as part of new NHSGGC Procurement Strategy** and aim to increase local SME spend and to increase spend with supported businesses.

How We'll Reach Our Goals

- **Undertake a benchmarking exercise to evaluate NHSGGC against the CWB plans of Local Authorities** in the area and align ourselves strategically with these and with Glasgow City Region's plans
- **Develop an Anchor Strategic Plan** and associated plan for each priority pillar, to include: governance and partnership arrangements, current and planned anchor activity, baseline information and an evaluation plan. Specialist support will enable this work to be developed at the same level and quality as that of our partners in the region
- **Continue to work with partner organisations in opportunities around regeneration projects** and enhance the sharing and participation from the community and voluntary sectors
- **Continue to promote and deliver community benefits** as part of new or refurbishment projects.

10. Risks and Opportunities

In order to successfully implement the sustainability strategy, a thorough understanding of the risks associated with the delivery of objectives is key. Allowing the governance framework to highlight risks associated with implementing the sustainability agenda through the Board's risk register and put in place control measures to lessen their likelihood. Where possible we will also flag opportunities to work with external partners and embrace technologies to meet our targets, which are currently out with the scope of business as usual operations.

Regular SWAT analysis will be undertaken by the working groups that will inform the Risks, Assumptions, Issues & Dependencies (RAID) log with the working group charters, covering the timespan of this strategy and as a core part function of our broader Integrated Management System approach.

11. Communications and Training

People underpin sustainable healthcare – we need the help of staff, partners and people in the community to ensure this agenda delivers positive and beneficial outcomes for all.

By engaging our staff to create a culture of sustainability, we can empower our people to be part of the solution. Every single member of staff has a role to play in delivering the aims of this strategy and collectively, our **42,000** staff can make a significant contribution towards NHSGGC realising our strategic goals. It is envisaged that through work place behaviour change, our staff can take ownership at home too, adopting more sustainable lifestyles, assisting Glasgow and Scotland in achieving its climate change goals.

Objectives

- **Develop digital sharing platforms to generate sustainability discussions**, raise awareness and share successful stories amongst NHSGGC staff
- **Develop sustainability roadshows/internal staff surveys** to allow for a more tailored approach to communications
- **Maintain and manage the content on webpage** with provision of sustainability resources for staff
- **Work in partnership with HR with the aim to develop and utilise iMatter** to better understand staff expectations and understanding of climate change and sustainability within NHSGGC and build on this learning to enhance staff experience and engagement.

How We'll Do It

- **Following NHSGGC's Sustainable Communications Plan**
- **NHSGGC is committing to raising awareness through communication.** We are championing environmentally, socially and economically conscious behaviour through training and learning opportunities for staff, helping them to feel empowered to implement sustainable changes in their work and personal lives
- **Identify works stream leads/champions** in line with priority areas that will improve our sustainability and net zero performance
- **Encourage and develop change and engagement** in our stakeholders
- **Support staff to lead change at individual, team and departmental level** aligned to the Board's corporate sustainability objectives
- **Empower staff** to take advantage of sustainability initiatives which boost health and wellbeing
- **Improve our service provisions**, offering more sustainable alternatives where possible and reducing risk to service operations
- **Creation of a Sustainability E-Learning by 2023** with additional bespoke modules relevant to specific subject areas
- **Creation of downloadable learning packages** including posters, information and other learning resources

- **We will deliver engaging internal communications** to create interest in the strategy amongst our colleagues as part of wider cultural change across the business, sharing good news stories and highlighting best practice
- **Awareness of the importance of the climate emergency and sustainability** has never been greater but it can still be challenging to know how we can make a difference.

How we facilitate lasting behaviour change

Staff Intranet	<ul style="list-style-type: none"> Permanent information, reporting and news Infographics Awareness Days Hot Topics
Social Media	<ul style="list-style-type: none"> Instagram Twitter Press Release
Core Brief	<ul style="list-style-type: none"> Updates Events Successes Alerts
Online Platforms (internal)	<ul style="list-style-type: none"> TV Screens Electronic Posters
Other (internal)	<ul style="list-style-type: none"> E-Learning Toolbox Talks/Roadshows Emails Surveys

12. Contacts Page

- For sustainability related enquiries:
Sustainability.Team@ggc.scot.nhs.uk
- For waste management related enquiries:
GGC.WasteTeam@ggc.scot.nhs.uk
- For energy related enquiries:
GGC.EnergyTeam@ggc.scot.nhs.uk
- For Active Travel and Transport related enquiries:
Travelpo@ggc.scot.nhs.uk

