NHS Scotland Data Quality Strategy for Climate and Sustainability

A trusted data foundation for credible, consistent and actionable change across NHS Scotland

Scottish Government
Riaghaltas na h-Alba

Contents

Foreword

High-quality, accessible and well-governed data is fundamental to building a sustainable, efficient and high-performing NHS Scotland. It offers the insight needed to understand our impact, track progress and support better, more informed decisions across the system.

The Sustainability Data Quality Strategy plays a central role in delivering this. It underpins NHS Scotland's Climate Emergency and Sustainability Strategy and establishes a consistent, practical and proportionate approach to managing environmental sustainability data. In doing so, it aligns with Scotland's Data Strategy for Health and Social Care, which emphasises the importance of having accessible, usable data to improve services, outcomes and innovation.

At its heart, this strategy is about enabling our people. Data quality is not the responsibility of a single team, but a shared commitment across the full data lifecycle – from planning and capture through to analysis, reporting and the decisions that follow.

Better data improves the quality and consistency of sustainability reporting, giving confidence in understanding progress. More importantly, it enables us to go beyond static reporting, by using data to inform decisions about how we design services, manage resources and reduce environmental impact. From procurement and materials use to service planning and delivery, data supports sustainable choices becoming routine and scalable.

Realising this value depends on improving the flow, availability and usability of data across organisational boundaries. Strengthening how data is collected, standardised, shared and accessed will unlock richer insights, reduce duplication and ensure information is available when needed. This reflects a broader shift towards integrated, reusable and insight-driven data services that support better outcomes.

Crucially, this strategy focuses on fit-for-purpose data rather than striving for perfection. It promotes a pragmatic approach, targeting effort where it delivers the greatest value while keeping the transparency, robustness and consistency needed for reporting and decision-making.

By setting out shared principles, practical checks and clear, role-based guidance, the strategy provides the clarity and confidence needed to use data effectively and embed data-driven sustainability into everyday practice.

I welcome this guidance and look forward to seeing this implemented across NHS Scotland.

Jonathan Cameron
Deputy Director of Digital Health and Care
Scottish Government

Executive summary

NHS Scotland relies on sustainability data to meet statutory reporting requirements, support decision-making and demonstrate progress towards net zero commitments. While considerable progress has been made in collecting and reporting sustainability data in recent years, approaches remain variable across health boards, with continued reliance on manual processes, local workarounds and inconsistent standards. This makes it difficult to build a consistent national picture, interpret trends over time and reduce reporting burden.

This Sustainability Data Quality Strategy was developed with input from subject matter experts across NHS Scotland, Scottish Government and industry. It sets out priorities and recommendations to strengthen data quality over time, focusing on coordinated national action that adds value, enables consistency and supports health boards while recognising different starting points and levels of maturity. Together, the priorities support confident use of sustainability data for reporting, planning and action at national, health board and service levels.

Delivery will be supported by evolving governance, accountability and assurance mechanisms, ensuring consistent and coordinated adoption across NHS Scotland.

Priority 1

Governance and accountability

Establish clear oversight, accountability and decision-making for sustainability data quality, supported by executive sponsorship and governance that builds on existing structures. This includes clarifying roles, approval routes, escalation and ongoing national support for recurring activities such as maturity assessment and monitoring.

Priority 2

National data standards

Agree and adopt practical national sustainability data standards to reduce variation, improve comparability and support automation. This includes authoritative machine-readable reference datasets, guidance and data quality metrics linked to standards, applied in a proportionate, maturity-based manner that recognises different starting points across health boards.

Priority 3

National sustainability data platform

Develop a shared national capability that brings sustainability data together in a more accessible, consistent and usable way for reporting and analysis. This capability will sit alongside existing health board systems, rather than replacing them. Development is phased, supported by clear requirements, an agreed operating model, clear ownership and governance arrangements.

Priority 4

Automation

Reduce reliance on manual processes by introducing targeted automation where it will have greatest impact, particularly for manual, repetitive or hard to reach datasets. Automation should complement existing assurance, reuse robust financial or regulatory assurance where it already exists and strengthen and progressively formalise supplier data requirements through procurement and contract management processes.

Priority 5

Data quality monitoring

Develop and establish a consistent approach to monitoring sustainability data quality over time, using indicators aligned to the Sustainability Data Quality Framework and national standards. This makes data quality visible, supports early identification of issues and enables consistent monitoring of progress over time.

Priority 6

Working together

Strengthen collaboration across health boards in a way that is proportionate and practical, building on existing networks. This supports shared learning, visibility of good practice, consistent understanding of terminology and reduced duplication through shared resources and case studies.

Priority 7

Building capability and resilience

Strengthen sustainability data capability across NHS Scotland, ensuring it is resilient and not overly dependent on single roles. This includes shared learning pathways, mentoring and peer support, practical signposting that remains proportionate and exploration of a small national function to provide specialist support and escalation, helping to avoid situations where support is overstretched or teams are isolated due to limited local capacity.

Recommendation delivery

The recommendations in this strategy will be delivered in phases and supported by a nationally coordinated roadmap covering activity over a short, medium and long term. Improvements will be delivered incrementally, with priorities, dependencies and approaches evolving as capability, standards and national infrastructure mature. The approach sets out recommendations to be taken forward by NHS Scotland health boards, with the support of national programmes and Scottish Government.

Introduction

What this data quality strategy is for

The Sustainability Data Quality Strategy sets out how NHS Scotland will strengthen sustainability data quality over time. It provides strategic direction, explaining what needs to change, why, and how this will be delivered nationally.

The strategy was developed by the Climate Emergency and Sustainability Strategy Portfolio, Data & Reporting workstream in collaboration with health board representatives from across NHS Scotland and Scottish Government.

It focuses on:

- Agreed priorities and why they matter
- Approaches to governance, standards, platforms, automation and monitoring
- Collaboration, resilience and training
- How effort should be targeted and sequenced
- Supporting health boards to make improvements

Use this document if you want to:

- Understand national priorities and direction of travel
- Understand how national approaches are intended to support local delivery
- Plan or align local work with national approaches
- Support decision-making, investment or governance discussions

Purpose and scope

This Data Quality Strategy builds on existing work and practice across NHS Scotland, setting out how sustainability data quality will be improved in practice to support wider sustainability and climate ambitions. It sits alongside the **Sustainability Data Quality Framework** and sets out nationally coordinated priorities and recommendations.

The Sustainability Data Quality Strategy supports delivery of the NHS Scotland Climate Emergency and Sustainability Strategy (2022–2026), particularly the commitments relating to tracking progress, reporting transparently and demonstrating measurable improvement against sustainability and emissions targets. By improving the quality, consistency and transparency of sustainability data, this strategy provides the data foundations needed to support assurance and decision-making across data intensive priority areas such as buildings and estates, travel, and goods and services. In this context, NHS Scotland is working towards increasingly ambitious climate targets alongside rising expectations for transparency, assurance and accountability. While sustainability data plays a critical role in meeting these expectations, current approaches remain variable across health boards, making it difficult to build a consistent national picture, interpret trends over time or reduce reporting burden.

These challenges are exacerbated by differences in local systems, capacity and starting points, and by the increasing complexity of sustainability data sources, methodologies and assurance requirements. To get a better idea of these challenges and what the sustainability data looks like in practice refer to Annex B – The complexity of sustainability emission sources and reporting.

This Data Quality Strategy responds to the challenges by setting out where coordinated national action adds value. It focuses on enabling consistency, reducing duplication and supporting health boards. **The strategy does not replace local data ownership, operational systems or professional judgement** and does not provide procedural or technical guidance for day to day data handling.

Instead, it:

- Defines priorities where nationally coordinated approaches can reduce manual effort and improve consistency
- Clarifies how governance, standards, platforms, automation, monitoring, collaboration and capability fit together
- Supports proportionate improvement by recognising different starting points and levels of maturity
- Complements the **Sustainability Data Quality Framework**, which provides practical guidance that can be applied immediately at local level

What is sustainability data?

Sustainability data is information used to understand NHS Scotland's environmental impact. This includes data on areas such as energy use in buildings, travel, waste and goods and services procured by NHS Scotland. It supports decision-making, performance monitoring and sustainability reporting commitments.

The following examples illustrate the types of data used to calculate emissions for a single source:

Example: Electricity use in buildings

To calculate emissions from electricity use, three types of data are brought together:

- Activity data – how much electricity is used (e.g. total kWh consumed by a hospital over a period)
- Emission factor – how much carbon is produced per unit of electricity (a standard value applied nationally)
- Calculated emissions – the resulting carbon impact (activity data × emission factor, reported in tonnes of carbon dioxide equivalent (CO_2e))

This data can then be used to:

- track trends in energy use over time
- identify opportunities to reduce consumption
- report progress against national climate targets

Example: NHS Fleet fuel use

A similar approach is used for NHS fleet vehicle emissions:

- Activity data – litres of fuel used by NHS fleet vehicles
- Emission factor – carbon associated with each litre of fuel
- Calculated emissions – total emissions from fleet activity

This data helps organisations:

- understand the impact of transport
- assess the benefits of low emission vehicles
- plan future investment to reduce carbon impact

Strategic context - why sustainability data quality matters

Sustainability data quality is essential to NHS Scotland's ability to plan and deliver effectively in the context of climate change, service pressures and rising expectations for transparency and accountability. Reliable data supports confident decisions by making impacts visible and enabling leaders target effort where it has greatest effect.

This strategy is based on a **fit for purpose approach**. Sustainability data does not need to be perfect to be useful, but it must be reliable, transparent and well understood so it can be used appropriately. Strengthening data quality should reduce unnecessary reporting burden and improve consistency while ensuring patient care and clinical decision-making remain the primary consideration.

This strategy is supported by the **Sustainability Data Quality Framework**, which provides practical guidance for applying good data quality principles in practice.

Our vision

Our vision for sustainability data quality is:

Enabling health boards & action

Trusted sustainability data that empowers every NHS Scotland health board to make confident decisions, reduce reporting burden and accelerate climate action.

Our ambitions and expected outcomes

We will achieve our vision by delivering on three key ambitions each supported by five expected outcomes and a set of anticipated indicators:

Ambition

Trusted and Consistent Data

Build confidence in sustainability reporting through clear standards, shared processes and continuous improvement, so sustainability data can be trusted across NHS Scotland and beyond.

Outcomes	Indicators
Consistent national standards in use Nationally agreed sustainability data standards and reference datasets are adopted and used consistently across all health boards.	• Adoption of national standards. • Reduction in reported discrepancies. • Completion of annual data quality assessments.
Reduced inconsistency Reported sustainability data is more consistent and comparable, with fewer discrepancies between sources and reduced need for manual correction.	• Sustainability data is comparable across agreed data sources.
Visible and proportionate data quality assurance Sustainability data quality is routinely assessed using a shared national framework, with clear audit trails and transparent assumptions.	• Routine data quality assessments using the national framework. • Clear audit trails for data quality checks and key data flows.
Increased confidence and trust in data Health boards and national teams have greater confidence in the sustainability data they use, reflected through feedback, maturity assessments and use in decision-making.	• Greater confidence in sustainability data used by boards and national teams. • Positive feedback on data quality from boards or maturity assessments.
Proportionate reporting expectations Clear national guidance defines what constitutes ‘good enough’ sustainability data, helping to focus effort where it matters most and avoid unnecessary reporting.	• Shared understanding of what constitutes ‘good enough’ sustainability data. • Effort focused on higher impact and higher risk datasets.

Ambition

Insight-led reporting and action

Provide timely, reliable sustainability data that supports analysis, reporting and confident, evidence based decision-making that delivers measurable improvement.

Outcomes	Indicators
Data can be analysed and used without additional manual effort Sustainability data can be analysed and interpreted routinely, without repeated manual manipulation or spreadsheet-based workarounds.	• Trend analysis produced without repeated manual data manipulation. • Reduced reliance on spreadsheet-based reporting processes.
Sustainability data informs decisions and action Sustainability data is used consistently to support decision-making, with clear evidence of how insight has informed action and measurable improvement.	• Sustainability data referenced in decision papers and governance forums. • Evidence of measurable improvement informed by sustainability insight.
Timely access to validated national data A shared national reporting capability provides timely access to validated sustainability data for health boards and Scottish Government, enabling consistent monitoring of trends within agreed timeframes.	• Validated sustainability data available within agreed reporting timeframes.
Reduced reporting effort through automation and standardisation Priority sustainability datasets are ingested, validated and reported in a more automated and standardised way, reducing reliance on spreadsheets and manual effort.	• Automated ingestion and validation for agreed priority datasets. • Reduction in manual reporting effort across health boards.
Data quality is visible alongside reported data Clear indicators of data quality are available alongside sustainability data, enabling confident interpretation, comparison and use.	• Data quality metrics visible alongside reported sustainability data. • Improved confidence in interpreting trends and comparisons.

Ambition

People, culture and learning

Create a well-governed sustainability data environment where clear roles, collaboration and shared learning build capability across all health boards.

Outcomes	Indicators
Clear and consistent governance roles Sustainability data governance roles and responsibilities are clearly defined and applied consistently across all health boards.	• Named data owners, stewards and producers in place across all boards. • National governance framework published and referenced in assurance processes.
Sustainability data is designed into systems and processes Sustainability data requirements are routinely built into the design and operation of business systems and processes, rather than addressed through manual workarounds.	• Sustainability data requirements included in system and process design. • Reduced reliance on manual or retrospective data collection.
Capability is built and sustained across NHS Scotland Sustainability data capability is strengthened through coordinated training, shared learning and access to specialist support, reducing reliance on single individuals.	• Participation in national training, communities of practice or shared learning. • Reduced reliance on single individuals for critical sustainability data activity.
Collaboration reduces duplication Health boards share solutions, tools and approaches where appropriate, reducing duplication and increasing consistency through once for Scotland approaches.	• Adoption of shared templates, validation logic or tools across multiple boards. • Reduced duplication of sustainability data development effort.
Alignment beyond NHS Scotland Sustainability data approaches are aligned with relevant national and public sector partners, supporting interoperability, shared standards and more efficient use of data.	• Active engagement with relevant public sector partners on data standards. • Reduced effort caused by misalignment of requirements or definitions.

Sustainability data quality strategy - at a glance

To support coordinated, proportionate improvement, the strategy sets out seven priorities, grouped into two types: core and enabling to reflect their role in sequencing and strengthening sustainability data quality across NHS Scotland. For these priorities, ambitions and recommendations have been defined to support coordinated, proportionate improvement over time.

Our Vision

Enabling Health Boards & Action

Trusted sustainability data that empowers every NHS Scotland health board to make confident decisions, reduce reporting burden and accelerate climate action.

Our Ambitions

Trusted and Consistent Sustainability Data

Build confidence in sustainability reporting through clear standards, shared processes and continuous improvement, so sustainability data can be trusted across NHS Scotland and beyond.

Insight-Led Reporting and Action

Provide timely, reliable sustainability data that supports analysis, reporting and confident, evidence-based decision-making that delivers measurable improvement.

People, Culture and Learning

Create a well-governed sustainability data environment where clear roles, collaboration and shared learning build capability across all health boards.

Our Expected Outcomes

- Consistent national standards in use
- Reduced inconsistency
- Visible and proportionate data quality assurance
- Increased confidence and trust in data
- Proportionate reporting expectations

- Data can be analysed and used without additional manual effort
- Sustainability data informs decisions and action
- Timely access to validated national data
- Reduced reporting effort through automation and standardisation
- Data quality is visible alongside reported data

- Clear and consistent governance roles
- Sustainability data is designed into systems and processes
- Capability is built and sustained across NHS Scotland
- Collaboration reduces duplication
- Alignment beyond NHS Scotland

Our Core Priorities

1. Governance and accountability
2. National data standards
3. National Sustainability data platform
4. Automation
5. Data Quality Monitoring

Our Enabling Priorities

6. Working together
7. Building capability and resilience

Our priorities

Core priorities

1. Governance and accountability

Summary

Ensure consistent oversight, clear accountability and effective decision-making for sustainability data across NHS Scotland.

This is supported by nationally coordinated governance, with clear routes for escalation and resolution. This includes strong national oversight with executive sponsorship, coordination of existing governance structures and clear authority to set priorities, agree standards and resolve cross board issues.

Effective governance should enable trusted reporting, alignment with statutory requirements and confident use of sustainability data to support climate action, while actively supporting health boards rather than creating additional administrative burden.

Where we are now

Governance arrangements for sustainability data exist across NHS Scotland, Public Services Delivery Scotland (PSD Scotland) and the Scottish Government, but they are not currently coordinated under a clear national strategic framework. Responsibility for sustainability data and data quality are interpreted differently across health boards and data roles are not consistently embedded within governance and assurance processes. As a result, accountability, approval routes and escalation mechanisms are not always clear or consistently applied.

While multiple governance groups and forums play a role, there is no single, coordinated mechanism with clear authority and remit to provide strategic, cross cutting oversight of issues such as methodology decisions, emission factor assurance or prioritisation of data quality improvement activity at a national level. This fragmentation limits consistency reduces confidence in reported data and makes it harder to support health boards proportionately or address issues that cut across organisational boundaries.

Where we want to be

A nationally coordinated governance approach that provides clear oversight, accountability and decision-making authority for sustainability data, while making best use of existing structures wherever possible. Roles and responsibilities are clearly defined, published and understood, with transparent routes for approval, escalation and resolution of cross board issues.

Governance is supported by visible executive-level sponsorship and is clearly linked to statutory reporting requirements and wider national sustainability ambitions. This enables health boards to understand their legal duties, apply proportionate effort based on risk and maturity and prioritise improvements where they will have the greatest impact.

Effective governance provides oversight, coordination and support, recognising that health boards are at different starting points and need flexibility to improve over time. It enables the setting of clear priorities and targets for data quality improvement, supported by consistent monitoring, nationally defined KPIs and trusted national reporting.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
1.1	Develop a sustainability data maturity assessment template for and coordinate completion by all health boards. Develop proportionate action plans reflecting local starting points across health boards, using existing tools and expertise where available. Repeat data maturity assessment at regular intervals (to be agreed).	Scottish Government (R) PSD Scotland (F) Health Boards (C) (F)	 Trusted & consistent data.	Visible, proportionate data quality assurance.
			 People, culture & learning.	Capability built and sustained.
1.2	Establish a nationally coordinated governance model for sustainability data that provides strategic oversight, clear authority to set priorities, approve standards and methodologies and resolve cross-board issues. Where possible, this should coordinate and build on existing governance structures rather than create new ones by default.	Scottish Government (R) (C) PSD Scotland (F) Health Boards (C)	 Trusted & consistent data.	Clear governance roles and responsibilities. Increased trust and confidence in data.
1.3	Create or formalise targeted national expert working group(s), reporting through the agreed governance structure, to provide technical advice on specific topics such as data standards, methodologies and emission factors.	PSD Scotland (F) Scottish Government (C) Health Boards (C)	 Trusted & consistent data.	Consistent national standards in use. Increased trust and confidence in data.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
1.4	Define and standardise key sustainability data roles (for example data owner, data steward and sustainability lead), with clear accountability for collecting, checking, approving and reporting data. Ensure these roles are formally embedded within governance and assurance processes.	PSD Scotland (F) Scottish Government (R) Health Boards (C)	 People, culture & learning.	Clear governance roles and responsibilities. Capability built and sustained.
1.5	Develop a clear communication and engagement approach explaining governance roles, statutory responsibilities and the value of good sustainability data.	PSD Scotland (F) Scottish Government (C) Health Boards (C)	 People, culture & learning.	Increased trust and confidence in data. Capability built and sustained.
1.6	Put in place policy for clear executive-level sponsorship for sustainability data governance, with accountability at chief executive and chair level. This should be supported by active engagement with the Scottish Government to ensure sponsorship sits at the right level and is aligned with legal reporting requirements and national sustainability priorities.	Scottish Government (R) Health Boards (F) (C)	 Trusted & consistent data.	Clear governance roles and responsibilities. Increased trust and confidence in data.
1.7	Evaluate the need for, and where justified establish, a permanent national sustainability data function to provide ongoing national oversight of data quality activity, including maturity assessment, monitoring and national analysis to inform national priorities. This could be delivered through existing national capability subject to agreed remit and sustainable funding.	PSD Scotland (F) (C) Scottish Government (C)	 People, culture & learning.  Trusted & consistent data.	Visible, proportionate data quality assurance. Capability built and sustained.

2. National data standards

Summary

Implement nationally agreed, practical national sustainability data standards that enable consistent, comparable and trusted reporting across NHS Scotland. National data standards should align with recognised national and international frameworks, make expectations explicit and support health boards through a staged and proportionate approach that improves data quality and usability regardless of starting point.

Where we are now

Sustainability data is classified, recorded and interpreted in different ways across NHS Scotland. Health boards use varying definitions, classifications and methodologies for key datasets, including waste, energy and travel emissions. In areas where data is incomplete or unavailable, local approaches have been used to fill gaps, creating further inconsistency.

The absence of formally adopted national data standards and authoritative reference datasets means sustainability data cannot always be compared or aggregated confidently at national level. Variation also makes it harder to automate data processing, link data across systems or provide consistent national reporting. These issues reduce trust in reported data and increase the risk of duplication across health boards.

Together, these issues make it difficult to apply sustainability data consistently across NHS Scotland or to rely on national outputs without additional interpretation.

Where we want to be

We want nationally agreed, clearly articulated sustainability data standards that are formally adopted across NHS Scotland and aligned with recognised reporting frameworks, legislation and guidance. Standards should focus on enabling consistent recording, interpretation and use of data, rather than creating additional administrative burden.

National data standards should include, where appropriate:

- Agreed classifications and terminology for sustainability data
- Clear definitions of data items and reporting boundaries
- Standard templates or schemas that support consistent data capture
- Defined formats, units and identifiers
- Authoritative, machine-readable national reference datasets
- Explicitly adopted methodologies for data collection and emissions calculation

Standards should be introduced and maintained through a staged, maturity-based approach that recognises different starting points across health boards and prioritises areas of greatest risk or impact. In complex areas such as Scope 3 emissions, standards should be supported by clear joint ownership, coordination and communication between health boards and national procurement functions.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
2.1	Identify, agree and where necessary develop national sustainability data standards ensuring alignment with international sustainability reporting standards (such as GHG protocol) and formally adopt and publish them across NHS Scotland. Standards should align with recognised national and international reporting frameworks and legislative definitions where applicable, making expectations explicit, reducing variation in interpretation and enabling consistent, comparable and trusted national reporting.	PSD Scotland (F) Health Boards (C) Scottish Government (C)	 Trusted & consistent data.	Consistent national standards in use.
2.2	Take a nationally coordinated, iterative approach to sustainability emission sources that are currently unreportable or inconsistently reported, recognising their complexity and engaging with evolving external guidance to develop, test and refine formal, nationally consistent methods over time.	PSD Scotland (F) (C) Health Boards (C) NHS Assure (C)	 Trusted & consistent data.	Reduced inconsistency.
2.3	Develop and publish authoritative, machine-readable national reference datasets (for example sites, locations, classifications, units and emission factors), consolidating existing sources where possible.	PSD Scotland (F) Health Boards (C) NHS Assure (C)	 Trusted & consistent data.	Reduced inconsistency
2.4	Produce clear, accessible guidance and examples to support consistent application of national data standards and methodologies by health boards, suppliers and national teams.	PSD Scotland (F) Health Boards (C) Scottish Government (C)	 Trusted & consistent data.	Increased trust and confidence in data.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
2.5	Agree and publish data quality metrics linked to national data standards, enabling transparency about data quality and proportionate assessment of whether data is fit for purpose.	PSD Scotland (F) Health Boards (C) Scottish Government (C)	 Trusted & consistent data.	Visible, proportionate data quality assurance.
2.6	Use agreed data quality metrics to assess sustainability data in a staged, maturity-based way, reflecting the starting point.	Health Boards (F) (C) Scottish Government (C)	 Trusted & consistent data.	Visible, proportionate data quality assurance.
2.7	Use data quality metrics to prioritise and take action to improve sustainability data focusing effort where it will have the greatest impact.	Health Boards (F) (C) Scottish Government (C)	 Insight-led reporting & action.	Data quality visible alongside outputs.

3. National sustainability data platform

Summary

Establish a national, 'Once for Scotland' sustainability data platform that brings sustainability data together in a more accessible, consistent and usable way to support local and national reporting and decision-making. The platform will act as a shared national capability that sits alongside existing health board systems, enabling aggregation, transparency and automation where feasible, rather than replacing local data collection processes.

Where we are now

Sustainability data is currently held across a wide range of local systems, spreadsheets and manual processes, with no consistent national mechanism for accessing operational data in a timely or joined up way. Although early work is underway to develop a national data platform, this currently focuses on collating and organising datasets that have already been reported and published at national level, often with a time lag of 12–18 months.

Operational data that underpins sustainability reporting remains largely local and fragmented, making national aggregation, timely analysis and comparison difficult. This limits the usefulness of sustainability data for in-year decision-making and reduces opportunities to identify trends or target improvement. At present, the platform represents an early proof of concept rather than a comprehensive national capability.

Where we want to be

The national platform will evolve over time into a central, interoperable sustainability data platform that sits above or alongside existing health board systems. It will ingest data from agreed sources, apply validation during ingestion and provide a trusted national view of sustainability data for reporting and analysis. Key information about the data, including its source, quality and known limitations, will be retained so users can understand how the data should be interpreted and used.

The platform will not replace local data collection or management systems. Instead, it will support more automated and transparent data flows where feasible, reduce duplication of effort and enable the effective use of analytical and reporting tools at both local and national levels. Data quality and assumptions will be visible to users, supporting appropriate interpretation of both individual datasets and aggregated views.

Recognising that some areas of sustainability data are more complex or less mature than others (for example waste and supply chain data), development will be phased and prioritised over time. A clear operating model will ensure the platform remains actively managed, sustainable and responsive as new data flows are introduced and others are retired.

Governance and ownership of the platform will be defined through agreed national arrangements, ensuring clear accountability for its development, operation and ongoing management.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
3.1	Collaborate with users, health boards and national stakeholders to define clear requirements, expected benefits and priority needs and uses for the national sustainability data platform, building on the platform already in development.	PSD Scotland (F) (C) Public Health Scotland (C) Health Boards (C) NHS Assure (C)	 Insight-led reporting & action.	Data informs decisions and action.
3.2	Design and develop the technical infrastructure required to support a scalable, interoperable national platform that integrates with existing health board systems, automating data flows where feasible and avoiding the introduction of additional manual effort or duplication of local processes.	PSD Scotland (F) Public Health Scotland (C)	 Insight-led reporting & action.	Timely access to validated national data.
3.3	Agree and develop tools and interfaces that work alongside the national platform to support analysis, reporting and transparency of sustainability data, including visibility of data quality and endtoend data flows.	PSD Scotland (F) Public Health Scotland (C) Health Boards (C)	 Insight-led reporting & action.	Analysis possible without manual effort.
3.4	Create a delivery plan and operating model for the national platform, including a prioritisation framework for introducing new data flows, retiring existing ones and sustaining the platform over time. This should recognise differing levels of data maturity across domains and manage expectations around phased delivery.	PSD Scotland (F) Public Health Scotland (C) Health Boards (C)	 Insight-led reporting & action.	Reduced reporting effort.

4. Automation

Summary

Reduce reliance on manual processes in the collection, validation and reporting of sustainability data by introducing targeted automation where it will have the greatest impact. Automation should reduce reporting burden, improve consistency and timeliness, and release capacity within sustainability teams to focus on emissions reduction and change, while recognising variation in capability and readiness across health boards.

Where we are now

Across NHS Scotland, sustainability data is still frequently collected, processed and shared through manual processes, including spreadsheets, emails and local workarounds. This creates significant time pressure, increases the risk of error and contributes to inconsistent reporting.

Levels of automation vary widely between health boards, reflecting differences in scale, resources and system constraints. While some larger health boards have automated significant parts of their sustainability data flows, smaller health boards often face a higher manual burden. As a result, automation represents a high-impact opportunity and progress will depend on levels of readiness and capability.

Automation is most valuable where it reduces repetitive manual data processing effort and enables quicker access to usable data. When data flows more efficiently from operational systems, sustainability teams can spend less time compiling information and more time using data to generate insight and support action.

These challenges are particularly evident where data is held outside NHS Scotland. Automating data flows from suppliers and contractors' remains difficult, including for areas such as fluorinated gases, anaesthetic gases, patient and staff commute data, and other externally maintained datasets, where manual effort remains high.

Where we want to be

Automation focuses on reducing unnecessary manual effort, while improving the consistency and reliability of sustainability data. Priority is given to high-impact datasets, particularly those that are resource intensive to process or critical for national reporting and insight.

Operational data is drawn automatically from source systems where possible, with validation applied proportionately and tailored to different types of data. Automation complements, rather than replaces, existing validation and assurance processes.

Over time, data flows from suppliers and contractors become more standardised and increasingly automated, supported by clearer data requirements in contracts and procurement frameworks. As data becomes easier to access and more consistent, sustainability teams are better able to translate information into insight and support change.

The below example illustrates how automation approaches already used elsewhere in the public sector could be applied to sustainability data to reduce manual effort, improve consistency and strengthen assurance over time.

Case study:

Using Reproducible Analytical Pipelines (RAP) to strengthen data quality and efficiency

Education Analytical Services in the Scottish Government implemented a Reproducible Analytical Pipeline (RAP) to support production of the School Information Dashboards. Previously, the process relied heavily on manual spreadsheet handling, with repeated copying and pasting of figures increasing the risk of inconsistency and human error. The RAP introduced a standardised, automated approach that brought data preparation, quality checks and publication into a single, well-documented flow. The outcome was a consistent, transparent and auditable process, with reduced reliance on manual intervention. This enabled a publication cycle that previously took several weeks to be completed in a small number of days, while improving reliability, traceability and long-term maintainability of the data.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
4.1	Assess where manual sustainability data collection, validation and reporting tasks create the greatest burden or risk and identify opportunities for automation.	PSD Scotland (F) (C) Health Boards (C)	 Insight-led reporting & action.	Reduced reporting effort.
4.2	Prioritise procurement or development of automation initiatives to capture data automatically where possible, recognising variation in health board capability and that some complex datasets will require phased or longer-term approaches.	PSD Scotland (F) Health Boards (C) Scottish Government (C)	 Insight-led reporting & action.	Reduced reporting effort. Analysis possible without manual effort.
4.3	Assess opportunities for automated validation steps to be introduced into data collection processes.	PSD Scotland (F) (C) Health Boards (C)	 Trusted & consistent data.	Reduced inconsistency.
4.4	Implement automated validation steps where gaps exist, ensuring checks are proportionate and do not duplicate robust existing assurance.	PSD Scotland (F) (C) Health Boards (C)	 Trusted & consistent data.	Data quality visible alongside outputs.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
4.5	Prioritise integration of high-impact data sources and automate data feeds into the national sustainability data platform, reducing reliance on manual submissions.	PSD Scotland (F) (C) Health Boards (C)	 Insight-led reporting & action.	Timely access to validated national data.
4.6	Embed clear data and automation requirements into procurement contracts and supplier arrangements, ensuring sustainability data is provided in consistent, usable formats that support automated processing.	Health Boards (F) (C)	 Trusted & consistent data.	Reduced inconsistency.

5. Data quality monitoring

Summary

Data quality monitoring is the ongoing process of reviewing whether sustainability data remains accurate, complete, consistent and reliable enough for its intended purpose.

It builds on the governance, standards, national data platform and automation set out in priorities 1 to 4, ensuring these are applied consistently over time.

It provides a structured, repeatable way to understand how the quality of sustainability data changes over time. It uses agreed standards and validation checks to track trends, identify emerging issues and highlight where action is needed.

Where we are now

At present, NHS Scotland does not have a consistent or systematic approach to monitoring the quality of sustainability data as it moves through the data lifecycle. While checks are applied at various points, these differ by dataset, health board and supplier, meaning data quality issues are often identified late, after they have already been reported.

Some emissions data relies on assumptions that are no longer current, and monitoring capacity is constrained by inconsistent supplier data, limited ability within health boards to validate incoming information and reliance on manual or ad hoc processes. Existing operational or regulatory validation is not always visible or consistently considered at national level.

As a result, there is no clear, timely view of where data quality issues originate, how significant they are or where improvement activity should be prioritised.

Where we want to be

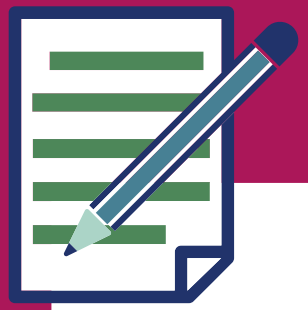
Data quality monitoring is a routine, embedded practice that provides continuous assurance about the quality of sustainability data across NHS Scotland. By making data quality visible through consistent indicators, trend analysis and routine comparison, monitoring supports early identification of risks and helps focus improvement effort where it will have the greatest impact.

In practice, it brings together agreed data standards and validation checks to provide ongoing assurance over time. Validation applies specific, rule-based checks at defined points in the data lifecycle, while monitoring focuses on trends and ongoing assurance over time. Checks are applied proportionately, with mandatory monitoring for critical data and more flexible approaches for supporting datasets, recognising differences in risk, impact and existing assurance.

This approach recognises that health boards are at different starting points, with varying levels of capacity and existing practice. Rather than introducing additional burden, data quality monitoring is intended to support health boards and national teams to understand the quality of the data they are working with, make informed judgements about its use and prioritise improvements in a targeted and proportionate way.

Using the **Sustainability Data Quality Framework** and the nationally agreed data standards developed under Priority 2 National data standards, data quality monitoring provides the mechanism for turning shared expectations into measurable indicators and ongoing assurance.

In the following example, national procurement data is used to monitor patterns of use over time, highlighting variation and supporting targeted improvement.



Case Study:

Rationalising Fluid Giving Sets and Warming Devices

NHS Scotland, through the National Green Theatres Programme, has demonstrated how trends in national procurement data can be monitored over time to evidence improvement without additional reporting burden on health boards. The programme highlighted the overuse of single-use fluid giving sets and warming devices and promoted appropriate use and alternatives. National procurement data shows a reduction in sets purchased from 57,912 to 50,586, a 12.6% decrease. This equates to an estimated 1.2 tonnes CO_2e avoided and £49,300 cost savings, demonstrating how standardised national datasets can evidence system-wide improvement at scale.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
5.1	**National data quality monitoring framework**			
5.1.1	Develop and implement a nationally agreed data quality monitoring approach that defines how sustainability data quality will be reviewed consistently over time, aligned to national standards and the **Sustainability data quality framework.** This does not introduce new checks where robust assurance already exists.	PSD Scotland (F) (C) Health Boards (C) Scottish Government (C)	 Trusted & consistent data.	Visible, proportionate data quality assurance.
5.1.2	Introduce routine reporting of clear data quality measures alongside sustainability data, enabling health boards and national teams to understand and communicate how reliable reported figures are. These measures should highlight emerging issues, support transparency and help prioritise improvement activity.	PSD Scotland (F) (C) Health Boards (C)	 Insight-led reporting & action.	Data quality visible alongside outputs.
5.2	**Contract and supplier data quality support**			
5.2.1	Strengthen the monitoring of supplierprovided data by embedding clear data quality expectations, reporting requirements and escalation routes within procurement and contract management processes, recognising that many sustainability data quality issues originate in contract performance.	Health Boards (F) (C) Scottish Government (C)	 Trusted & consistent data.	Increased trust and confidence in data.
5.2.2	Provide practical support to health boards and contract managers to manage supplier data quality consistently and effectively, using guidance and tools rather than new systems. Support should reflect the fact that contract management responsibilities sit across operational, managerial and senior leadership levels.	PSD Scotland (F) Health Boards (C) Scottish Government (C)	 Insight-led reporting & action.	Data informs decisions and action.

Enabling priorities

6. Working together

Summary

Priority 6 is a cultural and enabling foundation for the strategy rather than technical intervention. It underpins the delivery of all other priorities by improving visibility of practice, facilitating shared learning, and creating simple, effective ways for health boards to work collectively on common data challenges.

By working together, we will establish ways of working across NHS Scotland that help move beyond health board level silos and support effective collaboration on sustainability data. Further developing existing relationships will make it easier for health boards to learn from one another, align their approaches and address shared challenges collectively, while ensuring collaboration remains practical, proportionate and beneficial for health boards of all sizes.

Where we are now

A national sustainability portfolio is in place to coordinate activity and support progress towards a more sustainable NHS Scotland. Health boards are responsible for reporting their own sustainability data and retain significant autonomy in how services are delivered and suppliers are procured. While this flexibility is important, it has also contributed to variation in processes, data quality, tools and available capacity.

There are already strong foundations for collaboration, including national groups, regional networks and informal board to board engagement. In many cases, effective collaboration happens through direct contact, shared learning, and practical problem-solving rather than formal structures. However, some sustainability related datasets remain fragmented or held locally, with only a small number of national datasets currently in place.

Despite these challenges, there are many examples of strong practice, innovation and progress across NHS Scotland. Priority 6 seeks to make these examples easier to find, share and build upon, rather than duplicating or replacing what already works.

Where we want to be

Working Together supports a connected sustainability data community across NHS Scotland that shares insight, learns from experience and collaborates on shared challenges. The focus is on enabling collaboration in ways that are visible, accessible and practical, rather than creating new layers of governance or formal forums.

This approach explicitly builds on existing groups and relationships, keeping collaboration manageable and flexible so it complements, rather than competes with, existing workloads. For smaller health boards, where dedicated sustainability capacity may be limited, shared approaches and regional or nationally coordinated collaboration can provide practical support and access to expertise that would be difficult to sustain locally.

Working together also creates opportunities to co-develop solutions, templates and approaches that reflect operational reality and reduce duplication. This includes sharing completed or in-progress work, practical examples, and case studies that clearly show what works, where, and why. By improving visibility and signposting of good practice, health boards can more easily identify who to contact, what to adapt, and where to seek support.

Underpinning this, Priority 6 promotes a shared understanding of key terminology, methodologies and caveats, ensuring that differences in areas such as food waste treatment, proxy data use or modelling assumptions are applied transparently and consistently.

Collaboration with external experts, including academic and specialist organisations, can also be used selectively to strengthen NHS Scotland's approach and keep it aligned with evolving best practice.

This example shows how shared visibility of data, combined with active collaboration between national teams and clinicians, can support consistent improvement across NHS Scotland without introducing additional local burden.

Case Study:

National Green Theatres Programme - Anaesthetic Gas Reduction

NHS Scotland implemented a national programme to reduce the environmental impact of anaesthetic gases by combining shared data visibility with collaboration between national teams and clinical colleagues. Standardised data collection and reporting enabled clearer visibility of variation in anaesthetic practice, supporting a shift away from high-carbon gases such as desflurane. Routine feedback and shared learning between clinical teams helped embed more sustainable practice and improve consistency across health boards.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
6.1	**Structures and networks**			
6.1.1	Build on existing national, regional and informal sustainability networks to support ongoing collaboration on sustainability data, avoiding unnecessary duplication of groups or forums.	PSD Scotland (F) Health Boards (C)	 People, culture & learning.	Duplication reduced through shared approaches.
6.1.2	Establish a Sustainability Data Community of Practice (initially as an online and facilitative resource), to support knowledge sharing, peer support and informal problem-solving.	PSD Scotland (F) (C) Health Boards (C)	 People, culture & learning.	Capability built and sustained.
6.1.3	Create a Senior Sponsorship or Sustainability Data Champion role to drive active participation, maintain focus and help link collaborative activity to national priorities.	PSD Scotland (F) Health Boards (C)	 People, culture & learning.	Clear governance roles and responsibilities.
6.2	**Support and shared resources**			
6.2.1	Develop shared, collaborative tools (e.g. templates, guidance hubs, shared whiteboards) to support consistent ways of working.	PSD Scotland (F) (C) Health Boards (C)	 Trusted & consistent data.	Duplication reduced through shared approaches.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
6.2.2	Provide accessible spaces to share sustainability reference material and training resources, clarifying definitions, methodologies and data expectations.	PSD Scotland (F) (C)	 People, culture & learning.	Increased trust and confidence in data.
6.2.3	Develop clear, accessible routes for health boards to raise issues, share challenges and coordinate responses to common sustainability data problems.	PSD Scotland (F) Health Boards (C)	 People, culture & learning.	Capability built and sustained.
6.3	**Insight and practice sharing**			
6.3.1	Document and share practical case studies, process models and examples of good practice, focusing on real-world problem-solving rather than abstract guidance.	Health Boards (F) (C)	 People, culture & learning.	Capability built and sustained.
6.3.2	Encourage participation and learning through the development of informal formats such as short webinars, show-and-tell sessions and shared demonstrations of work in-progress.	Health Boards (F) (C)	 People, culture & learning.	Capability built and sustained.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
6.4	**Reducing duplication and supporting alignment**			
6.4.1	Work with health boards to jointly identify where sustainability data activities are duplicated, particularly in relation to national tools, systems and reporting processes, and map opportunities to reduce unnecessary duplication.	PSD Scotland (F) (C) Health Boards (C) NHS Assure (C)	 Trusted & consistent data.	Duplication reduced through shared approaches.
6.4.2	Use shared insight to inform future national approaches, including alignment opportunities arising through procurements and shared services models where appropriate.	PSD Scotland (C) Health Boards (F) (C) Scottish Government (C)	 Trusted & consistent data.	Duplication reduced through shared approaches.
6.5	**Communications and engagement**			
6.5.1	Focus communication on practical impact and shared challenges, using accessible language rather than technical terminology.	Health Boards (F) (C)	 People, culture & learning.	Increased trust and confidence in data.
6.5.2	Use success stories and shared achievements to build confidence, support adoption of the strategy and reinforce the value of collaborative working.	Health Boards (F) (C)	 People, culture & learning.	Increased trust and confidence in data.

7. Building capability and resilience

Summary

While Priority 6 focuses on enabling collaboration, Priority 7 concentrates on building capability and resilience so sustainability data can be collected, validated, interpreted and used with confidence across NHS Scotland. This includes strengthening and extending data literacy and practical know-how where needed, reducing reliance on single individuals and ensuring boards of all sizes have access to appropriate training, shared expertise and specialist support, so capability is not vulnerable to overstretch or isolation.

Where we are now

Across NHS Scotland, the level of resource, experience and support available for sustainability data work varies widely. Some boards have dedicated roles covering data collection, validation, reporting and analysis, while others rely on a single individual managing these activities alongside broader responsibilities. This can make sustainability data work vulnerable to staffing changes and more difficult to sustain consistently over time. Smaller boards, in particular, face challenges where specialist skills and capacity are limited.

To support consistent, high-quality sustainability data and reliable reporting, NHS Scotland needs a more coordinated and visible approach to capability building. Strengthening core skills, supporting consistent data literacy where needed and enabling access to shared expertise will help boards meet their responsibilities more effectively, while reducing pressure on individuals and reliance on informal workarounds.

Training and support are currently delivered mainly at board-level, with limited national coordination. As a result, confidence and approaches differ in areas such as:

- Using national systems
- Applying caveats
- Understanding assumptions and limitations in proxy or estimated data
- Interpreting modelling outputs

Where we want to be

Building Capability ensures that anyone involved in sustainability data, whether directly or indirectly, has access to the knowledge, support and confidence needed to carry out their role effectively. This includes consistent access to Scotland-wide training, practical guidance, shared expertise and clearer visibility of sustainability and data capability coordinated nationally.

By focusing on resilience as well as skills, NHS Scotland can reduce reliance on single individuals, support continuity when staff move on, and help smaller boards access expertise that may not be locally sustainable. Strengthening capability in this way will reduce reporting burden, improve consistency in data handling and increase confidence in the quality and use of sustainability data.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
7.1	**Training and learning**			
7.1.1	Create or develop nationally coordinated sustainability data learning pathways covering data literacy, systems, caveats and interpretation for reporting and decision-making.	PSD Scotland (F) (C) Health Boards (C)	 People, culture & learning.	Capability built and sustained.
7.1.2	Deliver learning in practical, accessible formats (e.g. short webinars, recorded walkthroughs, checklists and examples) to support daytoday application.	PSD Scotland (F) Health Boards (C)	 People, culture & learning.	Capability built and sustained.
7.2	**Resilience, mentoring and shared capability**			
7.2.1	Encourage mentoring, peer support and informal resourcesharing arrangements between health boards to reduce reliance on single individuals and strengthen resilience.	Health Boards (F) (C)	 People, culture & learning.	Capability built and sustained.
7.2.2	Improve visibility of sustainability and data expertise across NHS Scotland through clear, proportionate signposting (such as, named contacts or 'who to ask' guidance), ensuring this remains proportionate to avoid expectations of ongoing individual support where capacity is limited.	PSD Scotland (F) Health Boards (C)	 People, culture & learning.	Clear governance roles and responsibilities.

No.	Our Recommendations	Who is involved in delivery and what is their role? Requestor (R), Facilitator (F), Contributor (C)	Ambitions	Outcomes
7.2.3	Explore opportunities for shared or regional approaches to sustainability data activity where appropriate, recognising that some tasks may benefit from pooled capability or shared service models.	Health Boards (F) (C) Scottish Government (C)	 Trusted & consistent data.	Duplication reduced through shared approaches.
7.3	**Capacity and specialist support**			
7.3.1	Support health boards to evidence resourcing gaps and pressures in sustainability data activity, helping to inform local business cases and national discussions about capacity and priorities.	PSD Scotland (F) (C) Health Boards (C)	 Trusted & consistent data.	Increased trust and confidence in data.
7.3.2	*Explore the feasibility of a small, flexible national function to provide specialist analytical support and a clear escalation route, helping to ensure expertise is available where needed and reducing the risk of both overstretched support and isolated teams where local capacity or expertise is limited. This should complement, rather than replace, health board-level capability.	PSD Scotland (F) (C) Health Boards (C) NHS Assure (C)	 People, culture & learning.	Capability built and sustained.

* While the national function recommendation (1.7) in Priority 1 focuses on national oversight and stewardship of sustainability data quality, this recommendation focuses on ensuring people and teams have access to the skills, support and resilience needed to apply that oversight in practice.

From strategy to coordinated delivery

Delivering the Sustainability Data Quality Strategy will require progression from strategic direction into coordinated, structured delivery.

While this strategy sets out national priorities, expectations and areas for coordinated action, a number of elements will be further defined and agreed through governance and delivery planning. These include:

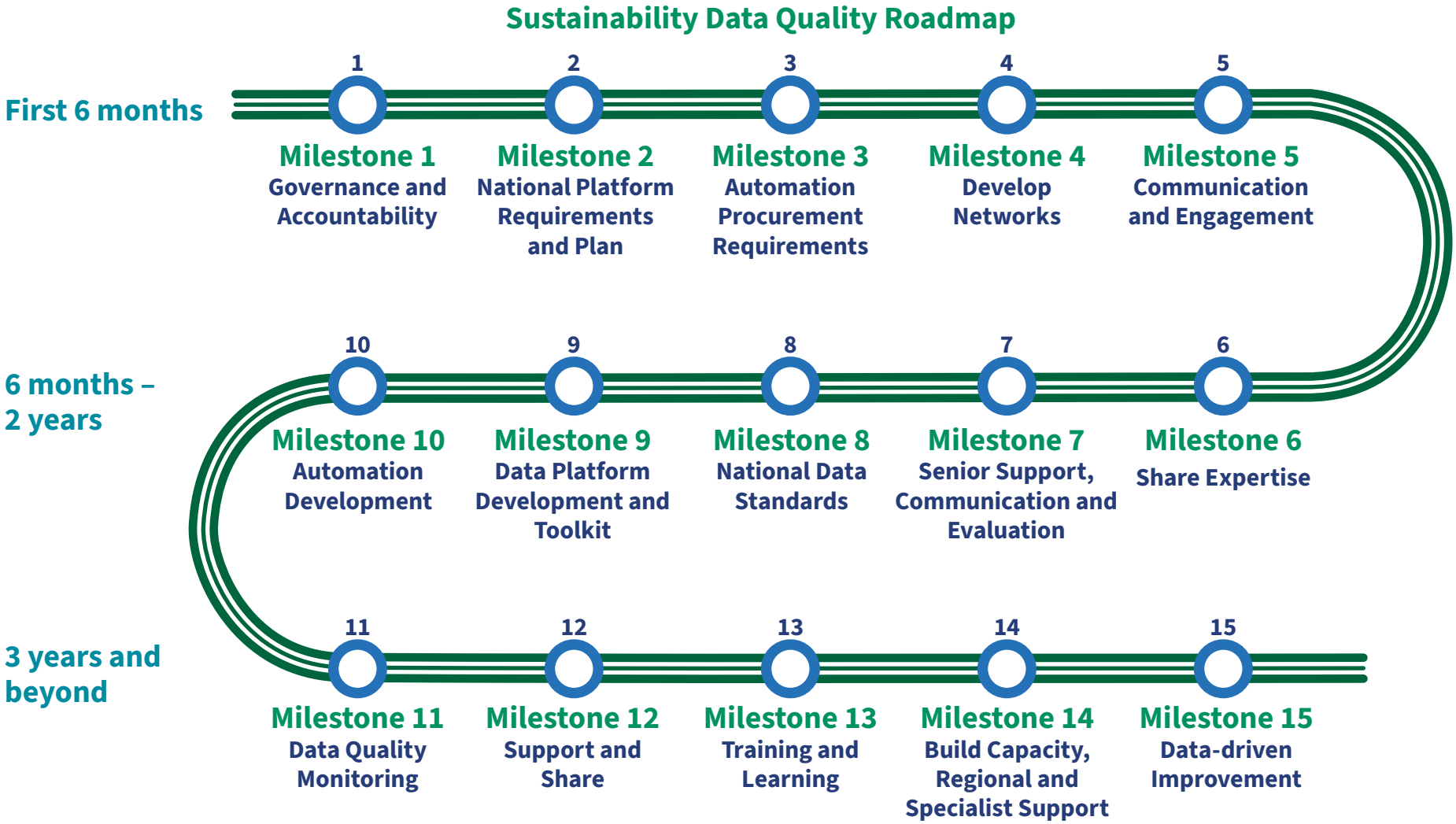
- **Consistent national adoption**
  Mechanisms to support consistent adoption across NHS Scotland, aligned with Scottish Government direction and statutory reporting expectations.
- **Accountability and progress**
  Nationally consistent approaches to monitoring progress, including data quality indicators, reporting expectations and escalation routes where appropriate.
- **Resourcing and any required funding**
  Consideration of how delivery will be supported in practice, including opportunities for health boards to work collaboratively, share expertise and make best use of existing capability. Where additional resourcing or funding is identified as necessary, this will be developed and considered through appropriate governance routes, supported by clear justification and expected benefits.
- **Delivery roadmap and sequencing**
  A phased delivery roadmap supports coordinated implementation of the strategy, setting out key activities, milestones and sequencing across short, medium and longer-term horizons.

  A high-level summary roadmap is included within this document to illustrate overall direction of travel, with a more detailed version available separately to support delivery planning and coordination. This will continue to be refined over time to reflect emerging direction, dependencies and insight as implementation progresses.

These elements will be developed through existing governance structures, with input from health boards and Scottish Government, ensuring that implementation remains proportionate, achievable and aligned with statutory responsibilities.

Data quality strategy roadmap

All recommendations from the above priorities are mapped out with dependencies and timelines on the **DQS roadmap**, which has been developed with stakeholders from across NHS Scotland. Here is a simplified roadmap which illustrates the recommended sequence of activities and milestones over the next 5 years. The activities recommended will require collaborative input from NHS Scotland health boards, national programmes and Scottish Government. Together the recommendations build a coordinated long-term strategy to improve sustainability data quality, create a robust and resilient NHS Scotland and support our transition to a greener future.



Annex A - Sustainability data quality framework

The Sustainability data quality framework provides practical guidance that can be applied at local level:

Sustainability Data Quality Framework

Annex B - The complexity of sustainability emission sources and reporting

Sustainability emissions reporting across NHS Scotland varies between health boards, reflecting differences in local systems, data availability and resource capacity. Health boards are responsible for managing and reporting a wide range of emissions, drawing on information held in NHS systems, contractor records and data provided by local and national teams, including Scottish Government.

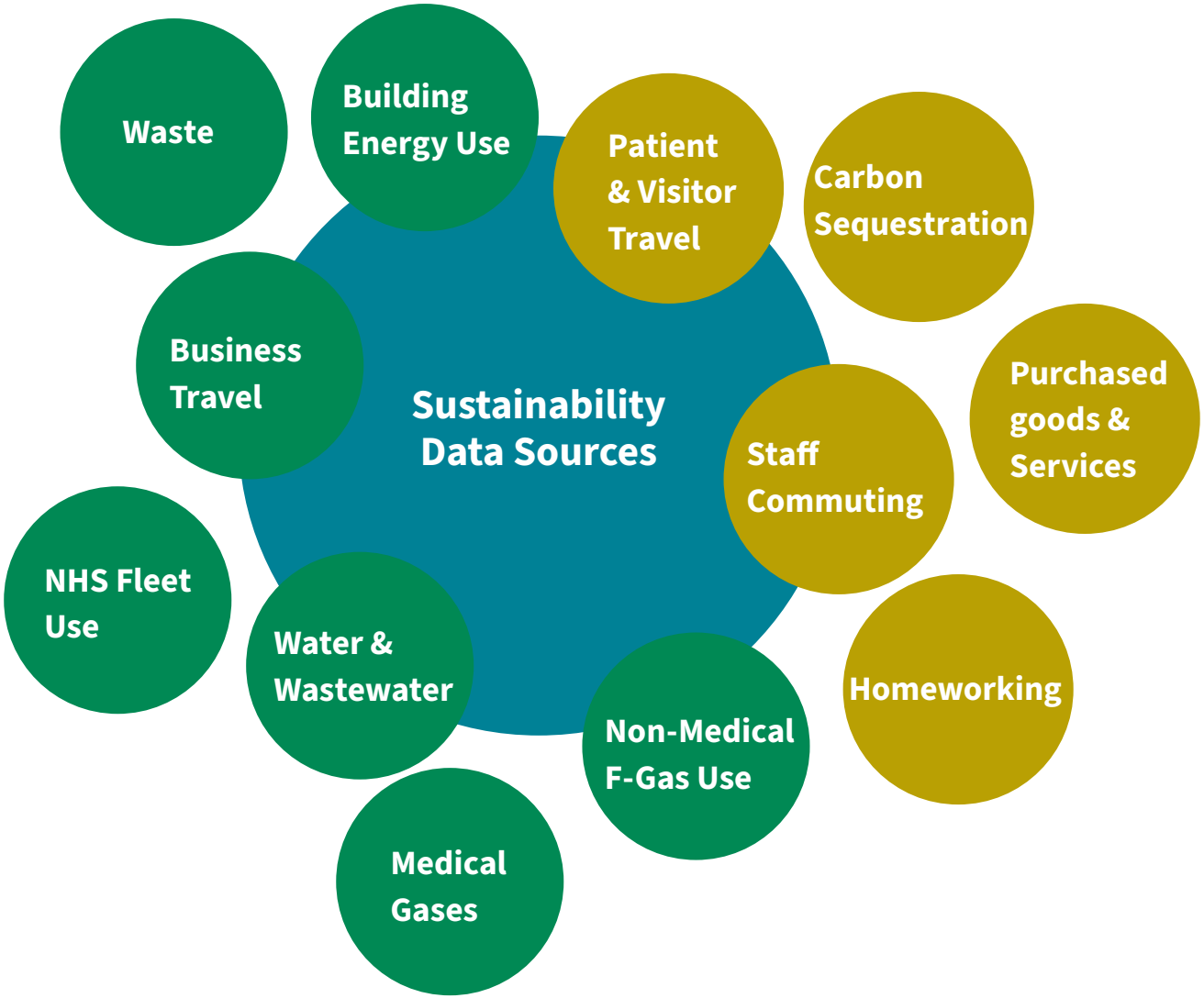
The diversity of emission sources adds to this complexity. Different datasets are collected in different ways, using a mix of automated systems, manual records and third-party information. In many cases, data required for reporting is held outside NHS Scotland, or is produced nationally and shared back to health boards for use alongside local data. As a result, emission sources are often managed and processed independently rather than through a single, end to end data flow.

The aim is for all health boards to report across all emission sources within scope. However, current reporting varies in both consistency and completeness, reflecting differences in data maturity, systems and access to information. This variation underpins the need for a coordinated, proportionate approach to improving sustainability data quality across NHS Scotland.

A high-level illustration of sustainability emission sources, current reporting process and emission sources and reporting flow is provided below to demonstrate the breadth of data involved and why reporting approaches continue to differ in practice.

Sustainability Data Sources

This diagram provides a high-level view of sustainability emissions data sources across NHS Scotland, highlighting the diversity of data involved.



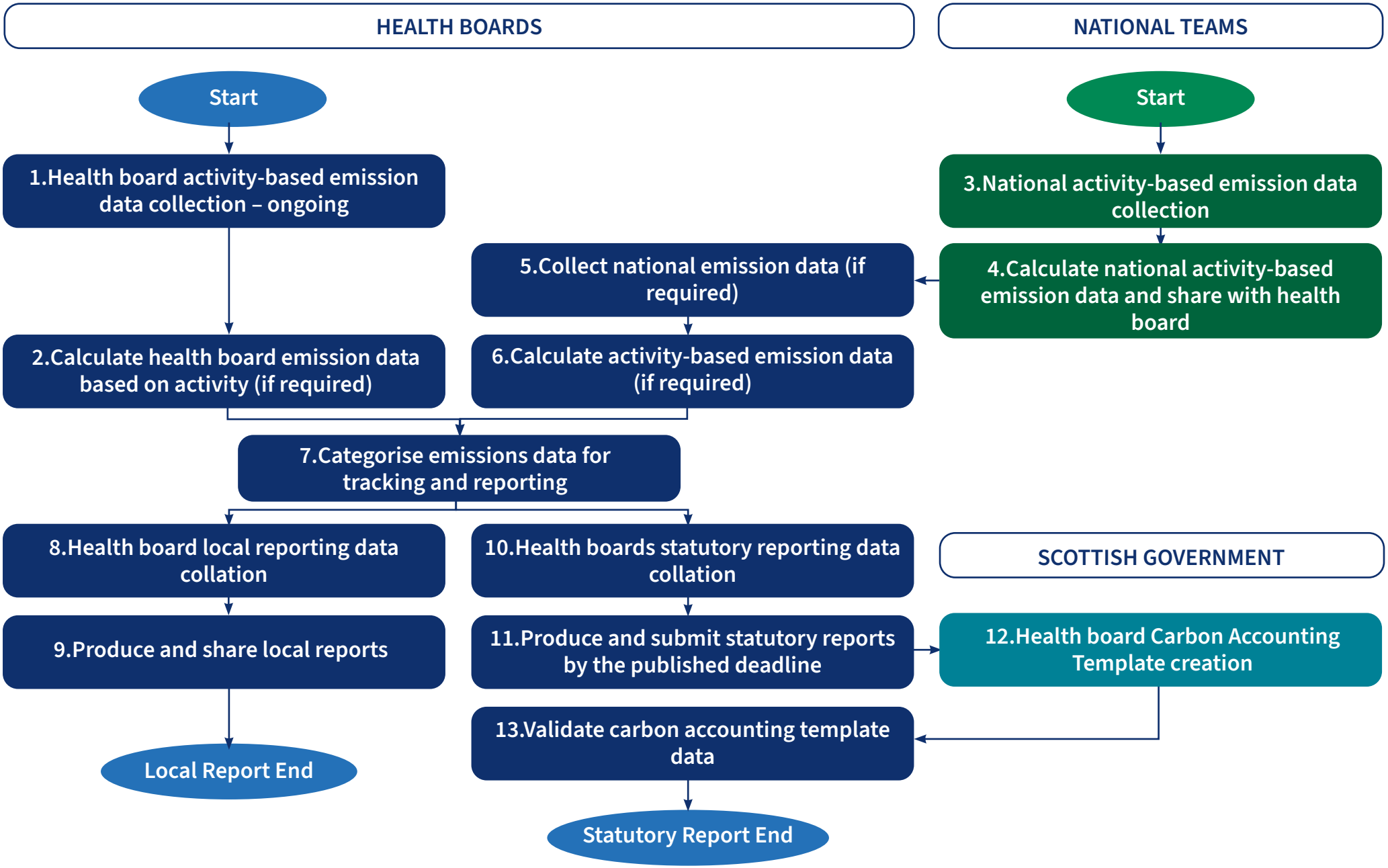
Key

Most consistently reported sources (green)

Less consistently reported sources or emerging sources (yellow)

Current Reporting Process

This diagram shows the current process for collecting, calculating and collating emissions data to support local and statutory reporting.

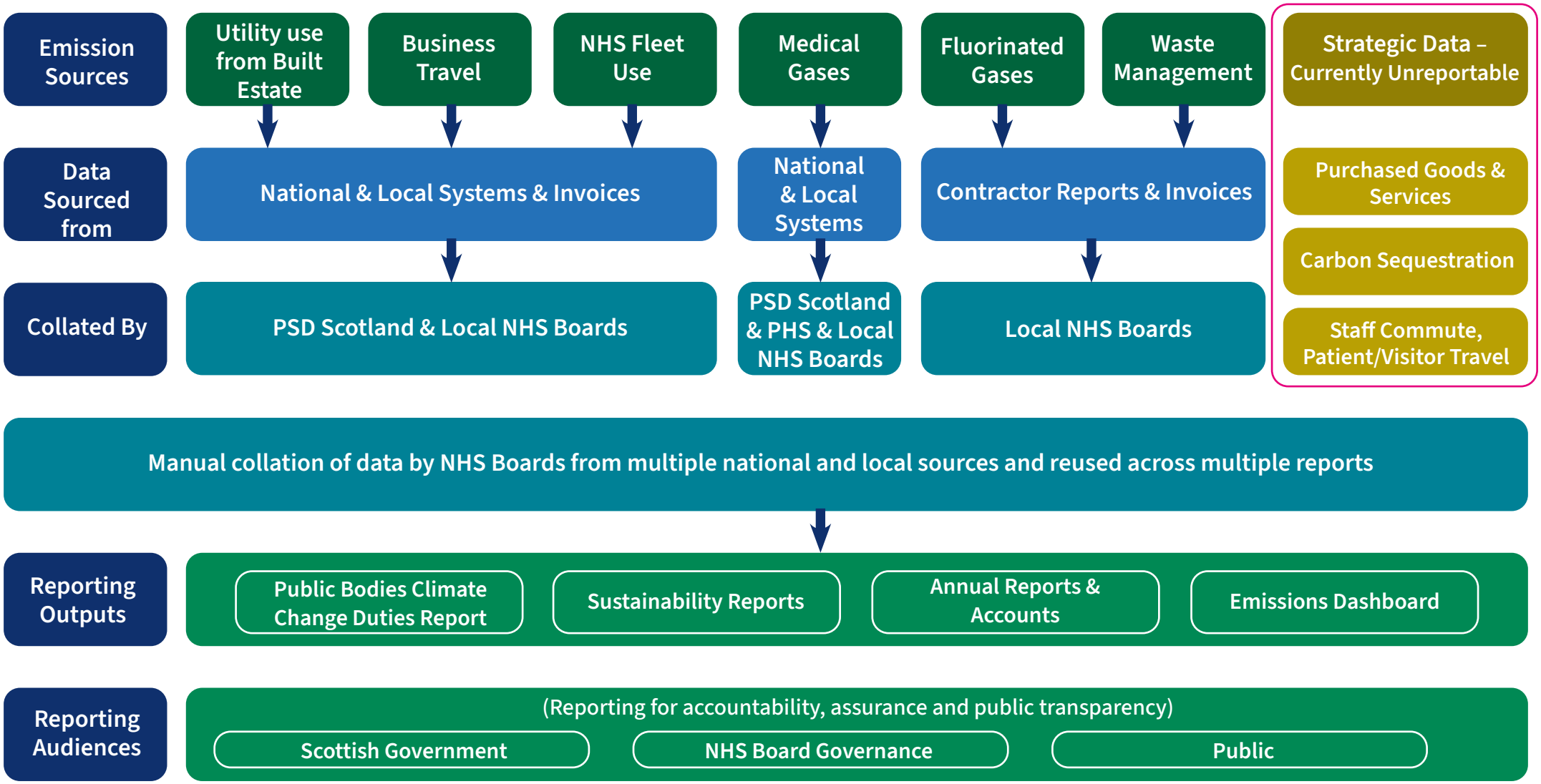


Emission Sources and Reporting Flow

The diagram below illustrates the current emissions reporting landscape across NHS Scotland, highlighting the range of emission sources, split responsibility for data collation, and reliance on multiple national and local data sources that NHS Boards bring together for reporting.

NHS Scotland Emissions Data Flow

Emissions data is currently gathered from a mix of national and local sources, with NHS Boards responsible for collating and reusing this data across multiple reports.



NHS Scotland Data Quality Strategy for Climate and Sustainability

With thanks to contributors from NHS Scotland Health Boards, Scottish Government and Public Health Scotland for their valued input and collaboration.