



# Digitalisation Strategy Action Plan

June 2024

In March this year, we published our updated Digitalisation Strategy and, as we look forward to GD3, we are refocusing our strategic roadmap to ensure we are set up to meet the challenges of the next few years.

This Digitalisation Strategy Action Plan (DSAP) has been revisited to reflect our updated approach and priorities for the remainder of GD2.

Underpinning our Digitalisation Strategy are the building blocks outlined below which have informed our overall approach, priorities and outcomes that will be enabled.

**Our digital and data ambition**  
 To make a positive impact on society, the communities we serve and our vulnerable customers by delivering excellence in the provision of safe and efficient services. We will accelerate decarbonised energy solutions to create a shared net zero future by modernising our business to become data-driven and digital at our heart.

<b>3.</b> <b>Our business outcomes</b>	<b>Stakeholder and societal value</b> Our digital and data products and services are inclusive, secure, sustainable and reliable. They deliver recognisable value to our customers and stakeholders.	<b>Regulatory obligations</b> SGN sustainably meets Ofgem’s expectations on Data Best Practice, Interoperability, AI and Digital Twin solutions, and aligns to legal mandates.	<b>Business transformation</b> Modernisation programme achieves performance gains by rebuilding legacy business processes as modern digital and data enabled processes.	<b>Business excellence</b> Data, analytics and AI allows us to drive performance gains in a broad range of business activity and address our most difficult problems.	<b>Future of Energy and innovation</b> We pilot and implement new technologies to bring about future performance gains and influence regulators and legislators.
	<b>Data sharing platform</b> Allows automated access to our data sets, internally and externally, under open data or published under licence.		<b>Analytics and reporting platform</b> Allows people at SGN to analyse our data sets to derive insight and used to produce business performance reports.		<b>Innovation platforms</b> Platforms to support AI, Digital Twin and IoT which enable testing and adoption of these technologies.
<b>2.</b> <b>Our platforms and capabilities</b>	<b>Data lake and integration layer</b> Data storage and plumbing that allows data sets to be accessed by other platforms				
	<b>High-quality data</b> Data owners take accountability for the quality and completeness of data. We apply Q-FAIR principles (Quality, Findability, Accessibility, Interoperability and Reusability) to our data.	<b>Digital and data governance</b> We govern our digital solutions and strategic data assets to ensure they are fit for purpose and deliver value. We develop and embed comprehensive digital and data governance framework.			<b>People with digital and data skills</b> Our people understand the value of data and how to utilise digital solutions. They have the requisite technical and data skills to deliver the outcomes for our stakeholders and organisation.
<b>1.</b> <b>Getting the basics right</b>	<b>Secure by design</b> Our digital solutions and platforms are designed with cybersecurity built in.				

We have designed this action plan to share details on the initiatives we will be undertaking through GD2 in line with our strategic building blocks.

## Our strategic outcomes

### Stakeholder and societal value

Our digital and data products and services are inclusive, secure, sustainable and reliable. They deliver recognisable value to our customers and stakeholders.

### Regulatory obligation

SGN sustainably meets Ofgem's expectations on Data Best Practice, Interoperability, AI and Digital Twin solutions, and aligns to legal mandates.

### Business transformation

Modernisation programme achieves performance gains by rebuilding legacy business processes as modern digital and data enabled processes.

### Business excellence

Data, analytics and AI allows us to drive performance gains in a broad range of business activity and address our most difficult problems.

### Future of Energy and innovation

We pilot and implement new technologies to bring about future performance gains and influence regulators and legislators.

## Our strategic building blocks

### Getting the basics right

The key foundational step in our digitalisation strategy is 'Getting the Basics right'.

In doing this, we will build essential skills and processes for creating high-quality data that is secure and well governed, that our employees can use to derive valuable business insight and our stakeholders can rely on.

We emphasise accountability for the quality and completeness of data and ensure our employees possess the necessary skills to analyse data effectively and derive valuable insights.

### Digitalisation and our customers

Digital solutions undoubtedly have a role to play in how we identify, connect and engage with our vulnerable customers and we utilise digital and data solutions appropriately to ensure we deliver the services and outcomes that are right for our vulnerable customer groups.

### Platforms and capabilities

In line with our commitment to establish digital foundations by 'Getting the basics right', we are dedicated to advancing and enhancing our capabilities in handling technical data. By developing our cloud data platforms, we aim to unlock the full potential of our data and foster innovative, data-driven solutions, enabling us to optimally harness our data skills. These robust platforms will not only enhance the storage, management, analysis, and sharing of data but will also play a pivotal role in supporting decision making both within our organisation and, through opening access to our data, by our stakeholders.

### Future of Energy and innovation

Digitalisation, and the shift toward data-driven gas networks, will increase as the decarbonised energy system of the future develops. Our innovation team will be able to use our digital platforms and capabilities to better explore and evaluate new data capture and sharing methods and use them to bring value to our customers and stakeholders

# Enterprise Data Management

Getting the basics right

Stakeholder and societal value

Regulatory obligation

Business excellence

Future of Energy and innovation

**Start date: April 2022 | End date: March 2026**

SGN has been on a journey to maturing its overarching data governance & management capability which focusses on our people, processes, technology and data.

A key part of this has been the investment in Talend data management platform which is enabling us to identify, describe and monitor our critical data assets as well as implement specific requirements from the Data Best Practice Guidelines (DBPG) such as implementing the Dublin Core metadata standard and embedding Quality, Findability, Interoperability & Reusability (Q-FAIR) principles.

We have established our Enterprise Data Management team who are continuing to develop their expertise, embed our data governance framework and catalogue our critical data assets.

We are continuing to establish and deliver key foundational data governance and management capabilities to enable both our external and internal data consumers getting the value and insights from our strategic data assets.

## Benefits and measures

### Critical data assets identified & catalogued in line with DBPG

- Updates on the number data domains processed and data owners on-boarded by Enterprise Data Management team and subsequent coverage of critical data asset identification.

### We are investing in applying Q-FAIR principles to our critical data assets

- Updates on the number of critical data assets identified are being kite-marked to indicate level QFAIR principles that have been applied.

## June 2024 update

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In the last six months, we have:

- Published two further Open Data assets in line with Data Best Practice Guidelines, on our Open Data Portal.
- Mobilised our Data Operations (DataOps) programme which will further support data management maturity through data assets stored within our data sharing platform and services.
- Critical data asset identification and cataloguing and data quality assessment is continuing, in line with DBPG and Q-FAIR principles.
- Data domains prioritised are network assets and people data assets. This is in line with business strategic and stakeholder priorities.
- Next phase of data governance rollout has been delivered with data domain aligned governance roles, responsibilities and forums in place

## December 2023 update

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There is ongoing work in GD2 to invest and develop data management capability in line with data best practice guidelines.

# Data Operations (DataOps) Capability Establishment Programme

Getting the basics right

Platforms and capabilities

Stakeholder and societal value

Regulatory obligation

Business excellence

Future of Energy and innovation

**Start date: April 2022 | End date: March 2026**

SGN has been awarded investment through Ofgem's ReOpener mechanism to establish a DataOps capability.

The primary use case has been informed by our external Data Users and Stakeholders who require an easy-to-use service when requesting, searching and accessing our data.

Our DataOps programme will mature our current service offering via SGN's Open Data Portal to securely deliver a one-stop-shop for a variety of Open and Shared data assets in formats to suit our data stakeholders. By centralising this capability, we will be introducing greater efficiencies in managing these data assets and their compliance with Data Best Practice Guidelines and Q-FAIR (Quality, Findability, Accessibility, Interoperability, Reusability) principles.

The DataOps capability will also provide our internal data consumers with the same service benefits, thus delivering data assets in an efficient, secure and timely fashion.

This initiative has a number of workstreams which we will be mobilising and delivering throughout GD2, and which will establish key foundations as we enter GD3.

## Benefits and measures

**We are investing in establishing DataOps capability to improve the products and services we offer our data users and in line with DBPG:**

- All open data assets are being served via DataOps function.
- Shared data assets are transitioning to the DataOps function as the scope of data assets in our data lake increases.
- We have implemented our next generation Data Sharing Platform which enables data users to access data assets in formats that they required, ie API.

**We are engaging with and listening to our stakeholders to ensure we are delivering the products and services they need in the way they need them:**

- We will provide details of our stakeholder plans, the events held, feedback received and our resulting plans.

**We are investing in our people to ensure they have the right digital and data skills to deliver the right outcomes for our stakeholders and organisation:**

- We will share information on our plans for communication, training, and development pathways for our staff, along with updates on progress.

**June 2024 update**

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The programme has been mobilised and aligned to SGN's delivery governance framework.

Workstreams to deliver the DataOps capability and benefits are being planned out in detail but will enable the following outcomes:

- Extending and maturing DBPG alignment across more data assets, not least more Open Data Assets.
- Improved data sharing platform and services.
- Increasing scope of data assets within centralised, governed and secure data lake.
- Delivering data services aligned to stakeholder and business data user needs through engagement with key stakeholders.
- Upskilled data users.

We will adopt a delivery approach appropriate to each workstream - agile/waterfall - and will advise on the progress, outcomes and benefits realised as they are delivered.

**December 2023 update**

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We undertook a detailed Discovery phase.

# Digitalisation and our customers

Digitalisation and our customers

Stakeholder and societal value

Regulatory obligation

**Start date: April 2022 | End date: March 2026**

Customers are at the heart of what we do and as part of our vulnerability support strategy, we aim to help 500,000 vulnerable customers use energy safely, efficiently and affordably between 2021 and 2026.

Our strategy incorporates both digital solutions to enable our most vulnerable customers to access the support and services they need, but also alternative access routes to support services ensuring we reach those for whom digital solutions would not be appropriate.

We have developed 'beyond the meter' support services with our operational staff as they go about their day-to-day business, as well as building collaborative partnerships with other energy networks and third-sector organisations to offer an array of Additional Services for our most vulnerable customers.

In addition to being British Standard BSI 18477 Inclusive Service accredited, we have recently achieved ISO 22458 Kitemark (Energy Sector) for accessible services.

To better understand the impact of our vulnerability strategy today, and to help us plan into the future, we are conducting research with Sustainability First/Centre for Sustainable Energy. This will help us to map out the barriers we forecast will block a fair and just energy transition and is informing our vulnerability strategy for GD3.

For more information on our Vulnerability and Carbon Monoxide Allowance strategic initiatives, read our [VCMA Annual Report 2023](#). Our online digital services can be accessed [here](#).

**June 2024 update**

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We are currently working with the National Energy Action (NEA) a fuel poverty charity to survey our partner-delivered services across both our network areas to understand how the support has impacted the lived experience of vulnerable households.

As a result of our services, we've seen a significant shift in people who couldn't previously keep their home comfortably warm at all now being able to do so, albeit still with difficulty. The number of households who were unable to keep their home warm reduced from 53% to 27% after our support. Meanwhile, the number of households who are now able to easily heat their home during the colder months increased from 9% to 20%.

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# Digitalisation and our customers

Digitalisation and our customers

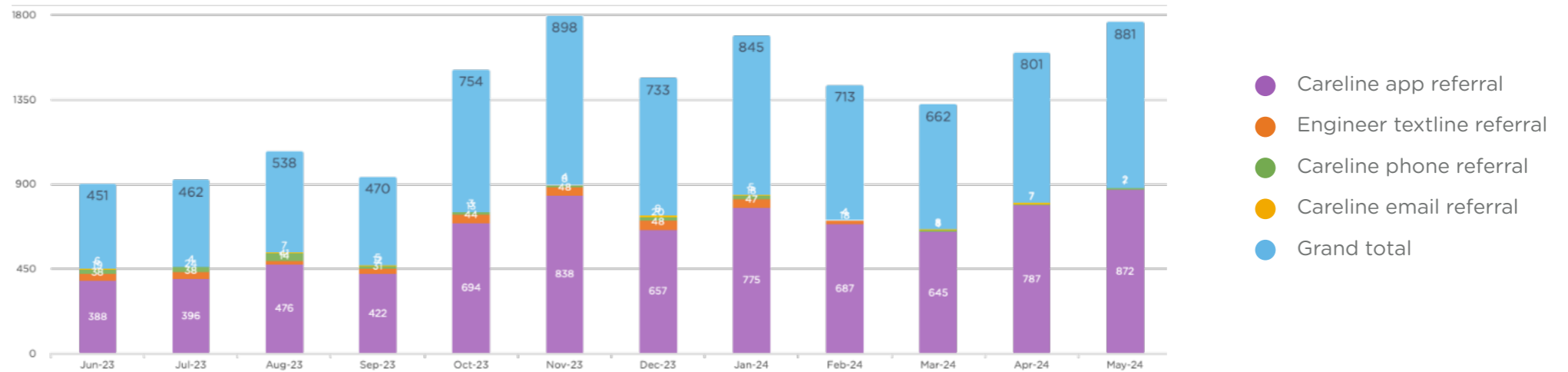
Stakeholder and societal value

Regulatory obligation

Total Additional Services requested for GD2 (04/21) to April 2024 (covers both self-referral and staff referral)

Additional service	Number of services requested
Priority Services Register	12,729
CO alarm referral	3,446
Emergency top up (gas/electricity)	2,783
Energy advice	2,394
Food essential pack/Tesco voucher	2,716
Safe and Well visits	1,941
Care and Repair	1,660
Careline Support Service	1,509
Scope Energy Hub	1,121
Befriending service	571
Fuel voucher scheme and financial support services (21/22)	272
Locking cooker valve	335
Hearing impaired CO and fire alarm system	344
Verbal warning CO and smoke alarm	277
Mental health and money advice	404
<b>Total</b>	<b>32,502</b>

Year-to-date totals for number of households referred by our staff (as opposed to self-referral via our online services)



# Future of energy and innovation

Future of Energy and innovation

Stakeholder and societal value

Regulatory obligation

Business transformation

Future of Energy and innovation

Our research into hydrogen production and distribution, carbon storage, and other innovative technologies aims to transform the gas system into the world's first green gas distribution network.

For the remaining part of the RIIO GD2 period, we plan to transform our approach to innovation, adopting an 'Innovation as a Service' model. This shift will primarily support our team in enhancing our operational performance. As part of this new strategy, we will streamline our innovation portfolio by reducing the number of active projects, concentrating our resources on those initiatives that significantly impact safety, efficiency, decarbonisation, or customer needs.

To read more about our Future of Energy and Innovation initiatives, visit [our website](#).

## Benefits and measures

**We are supporting innovation across the sector by participating in initiatives designed to transform the energy landscape. We are doing this in collaboration with our energy network peers and government stakeholders utilising schemes such as the Strategic Innovation Fund and the Network Innovation Allowance:**

- We will provide updates on the innovation initiatives we are working on along with the outcomes and benefits they are aiming to realise for net zero and our communities.

## Intelligent gas grid – strategic innovation fund beta

**Start date: August 2023 | End date: August 2026**

### Strategic Innovation Fund beta phase – Data & Digitalisation Challenge

The principal innovation underscoring the project is use of data-driven techniques, based on ML and AI technology, acting in combination with remote pressure control and network extremity monitoring equipment deployed to networks in a distributed digitalised architecture.

Benefits identified are around Cost Reduction in operating the networks; these benefits will be delivered progressively from 2026 onwards as the solution is rolled out as business as usual. Further information can be found [here](#).

### June 2024 update

Using Utonomy's remote control pressure system as the enabling technology, the project idea is to collect and use network data alongside external data such as weather to develop machine learning and AI applications that optimise network pressures and provide insights on network performance.

### December 2023 update

Iterative development and field trial validation of the intelligent control solution for methane leakage has commenced. Formal product approval of the minimum viable product solution is ongoing with the plan to trial four initial networks.

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# Future of energy and innovation

Future of Energy  
and innovation

Stakeholder and  
societal value

Regulatory obligation

Business transformation

Future of Energy  
and innovation

## Predictive safety interventions – strategic innovation fund beta

**Start date: August 2023 | End date: February 2025**

### **Strategic Innovation Fund beta phase – Data & Digitalisation Challenge**

The PSI Beta project is fully aligned with the SIF Beta Challenge for Data and Digitalisation, and successful project completion will deliver the next generation of user driven digital products, services, and processes. The project will create a predictive safety model in the gas sector and ready to take to the wider energy sector and utility sector globally, aligned with the Beta challenge phase.

Benefits identified are reduction of injuries and incidents; improved risk visibility across network operations, and lower cost to capture data about indicator events. Further information can be found [here](#).

### **June 2024 update**

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Currently, the process for reducing lost-time injuries involves a large manual data-capture effort and experimental process changes. By the nature of this process, a worksite is already unsafe before anything is done to prevent it. Instead of waiting for a site to become unsafe, FYLD and SGN want to analyse which conditions contribute the most to worksite safety, then multiply them throughout the network.

### **December 2023 update**

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The project has smoothly transitioned into the Beta phase, where work is focusing on reviewing and analysing the feedback and results from the initial stages. In parallel, the project team are engaging with both internal and external stakeholders to gather data to bring additional insights that will help refine our approach, ensuring alignment with business objectives and stakeholder expectations.

# Future of energy and innovation

Future of Energy and innovation

Stakeholder and societal value

Regulatory obligation

Business transformation

Future of Energy and innovation

## H100 Fife – network innovation competition

Start date: April 2020 | End date: March 2027

### Network Innovation Competition – Net zero and energy system transition

The H100 Fife project aims to pioneer a 'first of its kind' demonstration of a 100% hydrogen network, intending to serve 300 customers in Fife. The project is designed to provide critical evidence supporting the future role of the gas distribution network in achieving net zero, aligning with the UK government's ten-point plan and the Scottish government's Hydrogen Policy. The project will comprise of an end-to-end system, including power generation, hydrogen production, storage, pressure reduction, odourisation, distribution and customer connections to serve domestic hydrogen meters and appliances.

It will make the most of our existing natural gas infrastructure, making the transition to net zero faster and more affordable than other low-carbon solutions.

Further information can be found [here](#).

#### June 2024 update

##### Three workstreams are in progress:

- **Upstream hydrogen production:** This has transitioned from the development stage to the construction phase as works commenced on site in relation to the hydrogen demonstration facility. The H100 Fife site is planned for completion in September 2024.
- **Midstream hydrogen distribution network:** We have appointed the contractor to build and commission the distribution network. Construction commenced in May 2023 and is due for completion in June 2024.
- **Downstream Customer Marketing and in-home works:** We currently have 367 (as of June 2023) project registrations. The consumer engagement has been considerable and has resulted in a close relationship with the local community which continues to grow via activities such as sponsoring local events and engaging with key local stakeholders.

#### December 2023 update

Main works contractors to build and commission the hydrogen production and storage site by 2024 have been appointed. The hydrogen distribution network construction commenced, and we have laid 2km of distribution pipeline in the network area. The demonstration facility is finalising construction completion, and we are working on opening to customers in early 2024.

There are currently over 300 live participants who are customers and have registered to take part and are eligible after completing a survey. There has been continuous customer engagement throughout the reporting period, the most recent being the H100 Fife open event which took place 25 October 2023.

# Modernisation Programme

Getting the basics right

Platforms and capabilities

Business transformation

Business excellence

## Start/end date: going through programme governance

Our Modernisation programme will be harnessing the power of digital technology to transform SGN by rebuilding our business and its processes as modern digital processes. We are clear that our journey involves balancing investments in modernising our data and technology estates with making the best use of emerging technology to achieve our own business goals as well as creating social value.

Henceforth, we will be providing updates on the Transformation Programme as we look to deliver benefits from data and digitalisation capabilities.

This will lead to a fundamental review of our technology platforms, data structures, and the technologies that integrate them and enable our people.

## Benefits and measures

Updates on the benefits and measures identified will be provided as the workstreams are initiated.

## June 2024 update

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SGN has continued to undertake a full and detailed review of the priorities, outcomes and benefits associated with undertaking our Transformation programme. This has been essential given the complexity and foundational nature of our ambition.

In essence, our transformation programme aims are to::

- Find opportunities to consolidate our estate and find efficiency opportunities.
- Deliver simple and integrated data and digitalisation platforms.
- Standardise end-to-end processes, consistent across SGN and in line with regulation.

## December 2023 update

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This initiative is going through SGN's corporate governance process.

# Our 'Getting the basics right' success criteria for GD2

As part of our Digitalisation Strategy published in March 2024, we included details on the success measures we'd be adopting and reporting on as part of this DSAP publication.

## Success looks like

**Our critical data assets are being identified and catalogued in line with Data Best Practice Guidelines requirements.**

**We are investing in applying QFAIR principles to our critical data assets and they are trusted.**

**We are investing in establishing Data Operations (DataOps) capability to improve the products and services we offer our data users and in line with Data Best Practice Guidelines.**

**We are engaging with and listening to our stakeholders to ensure we are delivering the products and services they need in the way they need them.**

**We are investing in our people to ensure they have the right digital and data skills to deliver the right outcomes for our stakeholders and organisation.**

**We are supporting innovation across the sector by participating in initiatives designed to transform the energy landscape. We are doing this in collaboration with our energy network peers and government stakeholders utilising schemes such as the Strategic Innovation Fund and the Network Innovation Allowance.**

## Measure

Updates on the number data domains processed and data owners on-boarded by Enterprise Data Management team and subsequent coverage of critical data asset identification.

Updates on the number of critical data assets identified are being kite-marked to indicate level QFAIR principles that have been applied.

- All open data assets are being served via DataOps function.
- Shared data assets are transitioning to the DataOps function as the scope of data assets in our data lake increases.
- We have implemented our next generation Data Sharing Platform which enables data users to access data assets in formats that they required, ie API.

We will provide details of our stakeholder plans, the events held, feedback received and our resulting plans.

We will share information on our plans for communication, training, and development pathways for our staff, along with updates on progress.

We will provide updates on the innovation initiatives we are working on along with the outcomes and benefits they are aiming to realise for net zero and our communities.

## Initiative(s) aligned to

[Enterprise Data Management](#)

[Enterprise Data Management](#)

[Data Operations \(DataOps\) capability establishment](#)

[Data Operations \(DataOps\) capability establishment](#)

[Data Operations \(DataOps\) capability establishment](#)


[Future of energy and innovation](#)



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