

Digitalisation strategy

March 2024



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The production of the report is an Ofgem licence obligation and covers Southern Gas Networks and Scotland Gas Networks, collectively called SGN.

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Overview

04 Joint introduction from our Executive team

I'm delighted to be able to introduce this digitalisation strategy. It has become clear to me over a number of years working in complex and critical infrastructure industries that the right digital technology can make the difference between a company that achieves its potential and one that does not.

Our business is organised around enablement of our frontline workers to make sure our customers are kept safe and warm, and we will do everything we can to support and enable them to be safe, efficient and productive in their vital work.

Digital technology enables every part of this, from AI-assisted checks and risk assessments, to the most efficient scheduling and routing, and ensuring our people have detailed technical references at their fingertips. I am also really excited about the future energy mix and the role our work in trialling hydrogen plays in helping to understand what is possible in a decarbonised future. This means a fundamental rebuild of the energy industry and presents an unprecedented opportunity to build with digital at the core. I am proud of the role that SGN continues to play in leading this change.

Mark Wild OBE
Chief Executive Officer



←
Mark Wild OBE

↓
Andrew Quail



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Digital and technology are at the heart of SGN's goals to ensure the safety of our network and our customers, to build efficiency and to drive towards a sustainable and greener future.

As Chief Transformation & Information Officer I am passionate about 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.

We have learned a lot from our digitalisation journey so far and this significant rewrite of our strategy brings greater focus and cohesion to the strategic framework, which enables us to commit to clear action plans for the remainder of RIIO-GD2 (GD2) and positions our digital investments for RIIO-GD3 (GD3).

Andrew Quail
Chief Transformation & Information Officer



05 SGN digitalisation at a glance

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Our digitalisation strategy lays out our focus and ambitions for the remaining period of GD2 and as we prepare for our next price control period.

Here are some key points to take you through our strategy.

Our digitalisation strategy brings greater focus and cohesion to SGN's overall strategic framework as we commit to clear action plans for the remainder of GD2 and position ourselves for GD3.

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Engagement with internal and external stakeholders is key: we have been listening and will continue to engage with you to ensure we encompass your views, but also communicate our direction of travel and rationale.

[Read more on page 9](#)

Customers are at the heart of what we do. We have a bold ambition to help 500,000 vulnerable customers use energy safely, efficiently and affordably throughout GD2 and we design digital solutions with their needs at the forefront.

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Our strategy is focusing on 'Getting the basics right' for data and digital capabilities in GD2 and into GD3.

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As part of our approach to governing our data assets, we have adopted and have applied the Q-FAIR (Quality, Findability, Accessibility, Interoperability, Reusability) principles to make sure our data delivers value.

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We are investing in our staff to ensure they have the requisite data and technical skills to deliver the outcomes for our stakeholders and company.

[Read more on page 17](#)

Our digital and data solutions are designed with cybersecurity built-in for the security and privacy of our customers and network.

[Read more on page 18](#)

We are establishing a Data Operations capability to scale up and automate the data sharing services (including open data assets) that our stakeholders and data users need to support innovation towards net zero and societal benefits.

[Read more on page 19](#)



06 Our digital journey to date

Since the publication of our last digitalisation strategy in 2022 we have made some impressive steps towards digitalisation and data capability development. Our approach over the past two years has focused on delivering both our GD2 business plan and our digital transformation framework.

The goals of our GD2 business plan are to ensure that the services we deliver to our customers and our network are safer, more efficient and have a positive impact on the communities we serve. We achieved some key milestones, particularly in the arena of data best practice and the publication of open data sets.

We have invested in our people, processes and technology to establish the foundations needed for governing our critical data assets. Through this investment our Enterprise Data Management team are continuing to develop their expertise, embed our governance framework and catalogue our critical data sets.

We have implemented our Open Data Portal and published four open data sets with more in the pipeline, thus providing the mechanism to share those data assets needed by our data consumers and the journey towards net zero solutions.

Our investment in Data and Analytics capability continues with more curated data assets being incorporated into our data lake as our people seek to analyse our data to drive insights, innovation and business performance. This is particularly key to our colleagues in Future of Energy and

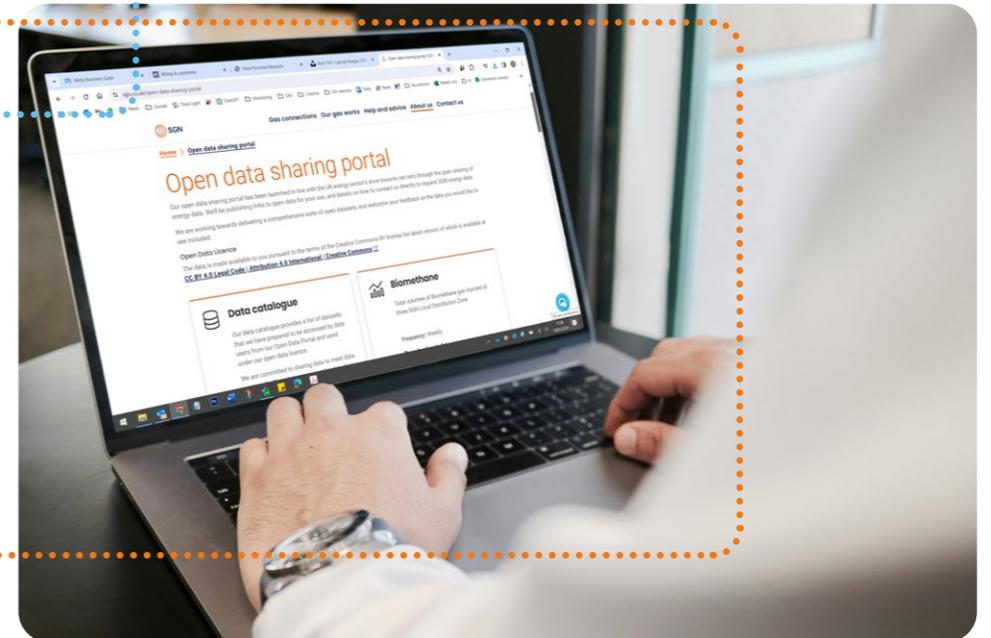
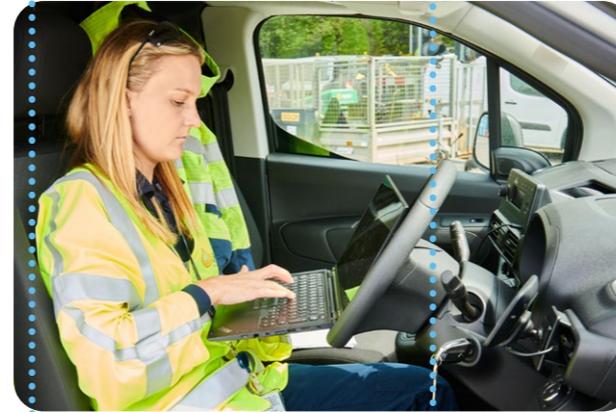
Innovation who continue to seek a rich mix of curated data to underpin and enable their strategic initiatives.

We have also developed some innovative approaches to supporting our frontline employees, such as AI-augmented risk assessments, improved data management and analytics capability, and delivered some groundbreaking Strategic Innovation Fund (SIF) funded work, such as the Intelligent Gas Grid.

As we begin to look forward to GD3, we have refocused our digitalisation strategy to ensure that we are set up to meet the challenges of the next few years, including:

- Further focus on data best practice and data sharing.
- The need to fundamentally transform our business processes and rebuild them as modern digitalised ones.
- A greater focus on metrics to drive business performance.
- Our continuing need to explore innovative new approaches and business models to decarbonise the energy system and influence the Future of Energy debate.

This approach aligns with both our commitments to achieve a decarbonised energy system and to be at the forefront of the fast-changing digital world. As we move into this next stage, we're maintaining our commitment to keeping our customers and our network safe, efficient, and green. We're committed to using innovative solutions, along with our foundational digital and data capabilities, to shape a future where we stand out for what we provide to our customers and stakeholders.



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← We're committed to using innovative solutions, along with our foundational digital and data capabilities.

↓ We have implemented our Open Data Portal and published four open data sets with more in the pipeline.



07 The external trends that shape our industry

The gas network has an essential and enduring role to play in ensuring that people have access to the energy they need to be safe and warm in their homes and at work. Set against this is the drive for sustainability and to decarbonise the energy system, which leads to changes in gas demand, the growing use of biomethane and experiments with hydrogen.

Demographic shifts mean that digital adoption is now the norm and customers expect to be served 'digital first'. We also recognise that alongside the pull for greater digital engagement is a significant minority who are not digital native and risk exclusion.

Technology shifts also create new opportunities for us, and although at the time of writing Artificial Intelligence (AI) and Machine Learning (ML) is currently at the forefront of the technology wave, we must continue to embed and derive value from more mature technologies like Internet of Things (IoT) and robotic process automation, as well as scan the horizon for emerging technology that will provide opportunity in the medium term.

To continue to deliver energy to our customers safely, efficiently and affordably, the changing dynamics of the energy system mean we need greater visibility far deeper into our infrastructure, and digital interoperability with the whole energy system. Access to the necessary data, at the right time, by people with the requisite skills will enable us to create the insights we need to operate our system effectively and enable our customers to benefit from the greater levels of reliability, safety and efficiency.

Sustainability

Sustainability and the need to decarbonise the energy system

Taking action on climate change is increasingly important to our customers and we are working to deliver a just transition towards a decarbonised energy system across both our networks by 2045.

By transporting greater volumes of biomethane through our network and exploring the role of hydrogen in the energy mix we are increasing our understanding of how to continue to deliver safe and efficient services in a decarbonised energy system.

Through this digitalisation strategy we are establishing the foundations of high-quality data, governance and digital skills that will provide us with the visibility across our networks and the whole energy system we engage with that will enable us to make informed operational and targeted investment decisions.

Customer expectations

The changing demographics of our customer base, and the expectations they have of us

Our customers' needs and expectations are changing rapidly. The impact increased energy costs are having on their household budgets, the ways they expect to be able to interact with us, and their growing desire to do the right thing by the planet are all informing how we are modernising and digitalising our business.

Digital technologies create opportunities for how we engage our customers and how they experience our organisation. We also need to ensure that those customers who choose more traditional ways of engaging with us or are unable to take advantage of new digital engagement channels continue to feel included and receive excellent service from us.

We are continuing to work with Citizens Advice to reach the digitally excluded. We are also supporting our frontline people to report and get help for vulnerable customers through our digital customer toolkit.

Through the greater visibility of our network and understanding of our customers we are driving efficiency in our operations, helping to address the impact of increased energy costs and target support for 500,000 vulnerable customers to help them use energy more safely, efficiently and affordably, with a direct financial benefit of £40m during the current price control period.

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Technology development

How advances in technology enable us to decarbonise, serve our customers better, and run a more efficient and productive business

Technology has a major influence on the way we operate our business and presents opportunities to deliver for our customers more effectively.

The need to decarbonise gas is leading to advances in the production of hydrogen and biomethane. This is changing the way our networks will be used in the future, and that is changing how we need to operate in order to continue to do that safely and efficiently. This means we need much greater visibility of what is happening across our networks in much closer to real time so that we have the insights to make the right operational and investment decisions.

The accelerating advances in digital technologies and their relevance in people's lives is changing our customers' expectations of how they want to interact with and experience our organisation.

Technologies such as AI and ML, Digital Twins, the IoT and quantum computing are increasingly commonplace and, through this digitalisation strategy, we are getting the basics right and establishing the foundations to adopt these technologies into our ways of working to deliver a positive impact for our customers.

That also means our people need to have the skills to use the digital tools available to them and to know how to use data to inform their decisions.



Engagement with our stakeholders

09 Our stakeholder engagement strategy

Listening to our stakeholders and acting on their feedback is at the heart of how we have developed our digitalisation strategy. We truly value our stakeholders' input and consider their perspectives integral to our decision-making. This next phase of our journey to digitalisation gives us the opportunity to enhance our interaction with our stakeholders and provide them with a regular and structured mechanism to influence and contribute to our strategic initiatives.

↓
Stakeholder feedback is integral to our decision-making.



We run an inclusive programme of engagement, promoting lively dialogue, and creating opportunities for challenge, review, and iteration. This enables us to work collaboratively with external partners to improve our digitalisation plans and activities. We also use digital tools in gathering feedback, like Tractivity which allows us to map our stakeholders by the topics they are interested in. Our engagement principles help us to ensure that we have the right conversations at the right time, that these are focused on topics our stakeholders care about, and that we act in their interests as a result of these conversations.

These principles are:

- **Delivering measurable benefit:** We engage directly with customers and stakeholders to include their interests in our decision-making and deliver valued, measurable benefits.
- **Focusing on material issues:** Customers and stakeholders have a say in prioritising the issues they care about and that have the most impact on them.
- **Driving inclusivity and diversity:** Engagement with customers and stakeholders is broad and inclusive.
- **Providing ongoing involvement opportunities:** We customise engagement based on stakeholder needs to ensure meaningful opportunities for ongoing conversation.
- **Being responsive and transparent:** We are responsive and transparent in explaining how stakeholder views and priorities have influenced decision-making.
- **Continually improving:** We continuously improve and develop our engagement with customers and stakeholders.

Stakeholder involvement in digitalisation

In preparing this strategy we consulted a range of stakeholders and stakeholder groups including:

- Customers and members of the general public.
- Our own employees.
- Industry partners, such as local authorities and members of our supply chain.
- Ofgem – our regulator.
- Industry bodies and institutions such as the Energy Networks Association (ENA), The Alan Turing Institute, and the Open Data Institute.

The feedback from these stakeholders can be summarised in a few key points:

1. **Data sharing** is a fundamental enabler to visibility and efficiency across the energy system. It enables our partners and the regulator to perform better and creates social value. Openly sharing data sets also allows entrepreneurs to explore new business models.
2. **Modernisation** is important for us to rebuild our business processes as modern digital ones with the user experience at the core and making best use of the technology available to us. Customers, our staff, and our supply chain want our digital systems to be easy to use, integrated and automated where possible, and available on the range of platforms and devices that they are most comfortable using.

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3. **Efficiency** means making best use of time and resources, reducing delay and rework, and bearing down on costs. This reduces costs for consumers, improves staff satisfaction, reduces safety risk to our employees and the public by minimising the duration of repair works, and fits with the regulator's objective to increase system efficiency. Digitally this means the best use of metrics and performance data, provision of appropriate digital tooling, and using AI and automation to reduce the digital workload on our staff.
4. **Innovation** is seeking to prototype new technologies to improve our current performance, and to position ourselves for the Future of Energy. Many innovations solve whole-system problems, which meets the needs of our regulator and industry bodies, while others improve our own efficiency and performance, meeting the needs of our customers, staff and supply chain.



10 The outcomes of our engagement

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The table below provides some examples of what we have already done to improve our business and create new initiatives, based on what stakeholders have said to us.

Our stakeholders told us	Our response was
<p>Our employees told us they were not comfortable walking away from vulnerable customers struggling to heat their homes. They wanted a mechanism to be able to support vulnerable households left off supply.</p>	<p>We developed a bespoke digital customer toolkit with an embedded referral app to make it easier for our engineers to access the help our vulnerable customers need. The toolkit helps ensure our customers can heat their homes safely, efficiently and affordably.</p>
<p>Our industry partners told us that it was difficult to access data they needed. They told us that in future they would like automated access to a growing number of data sets.</p>	<p>We have embraced the philosophy of data open by default and have developed a data sharing hub. We have plans to invest in a data sharing platform that automates the provision of data sets and makes them available through Application Programming Interfaces (APIs).</p>
<p>Our industry partners scored us at an average of 8.1 on satisfaction with the way we currently share data and 8.2 for the type of data we make available.</p>	<p>To maintain and improve these high satisfaction scores, we will continue to increase the scope of the data we share by focusing on our data sharing and open data approach.</p>
<p>100% of our employees identified as a strength that they have the things they need to do their job effectively.</p>	<p>To ensure this level of satisfaction persists in our organisation as we continue to focus on digitalisation, we are going to design an employee survey question specifically on data and digitalisation tools to be included in the next survey. This will allow us to understand our employees' needs and ensure these tools are fit for purpose.</p>
<p>Through consultation, our regulator Ofgem told us that future regulations would increase the focus on data best practice, and extend the current drive for open data sharing to become participation in an industry-wide data sharing infrastructure.</p>	<p>For the remainder of GD2 we are planning to focus on increasing our data capability maturity, deepening data governance and putting in place a data operations capability. Our plans for GD3 include investing in a data-sharing platform to give us the capability we need to participate in the industry-wide data sharing infrastructure.</p>
<p>Ofgem told us it is important to invest in digital and data skills and its expectation was that licensees grow a pool of digital skills within their organisations.</p>	<p>We plan to invest in the data and digital literacy of everyone in SGN through structured learning and development, as well as apprenticeships to grow new digital talent. In addition, we will build in knowledge transfer requirements into any contracts we have with partners to upskill and develop our staff.</p>



11 Our focus on vulnerable customers and the digitally excluded



51,723

customers signed up to the PSR



9.4/10

PSR customer satisfaction score



337,487

households supported to date



640,958

unique support services provided



2,272

fuel poor gas connections



136,442

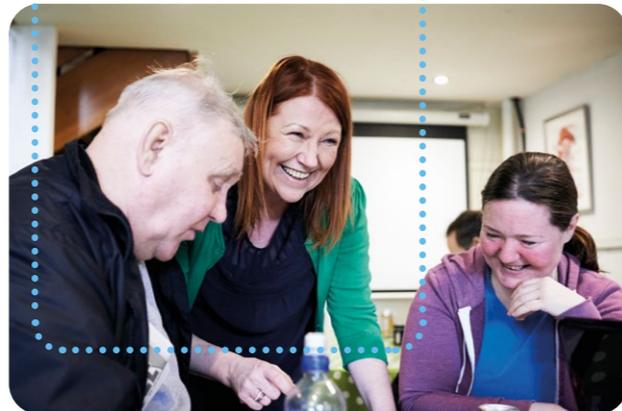
carbon monoxide safety sessions

Customers are at the heart of what we do. We have a bold ambition to help 500,000 vulnerable customers use energy safely, efficiently and affordably between 2021 and 2026.

Our five-year vulnerability support strategy guides our activity to ensure we're delivering genuine and valuable impact to those most in need of help to stay safe and warm at home.



We're keeping our communities safe and warm by providing tailored and targeted support for those who need it most.



We've developed an extensive partnership network to help us deliver a comprehensive range of programmes to support vulnerable households up and down the country.

We're extremely proud of the programmes we've created and grateful to the expert partners who support us in going above and beyond for vulnerable households.

Together, we're keeping our communities safe and warm by providing tailored and targeted support for those who need it most.

We believe in a targeted and tailored approach to delivering our vulnerability strategy, allowing us to provide meaningful and lasting support to households most in need across four strategic priority areas:

1. Providing direct support services to vulnerable customers as we go about our day-to-day operational work.
2. Supporting priority vulnerability groups to access tailored support services: carers, critically ill people, disabled people, families with young children, financially vulnerable people, digitally and culturally excluded groups, people with mental health conditions, older people, those with health conditions impacted by living in cold and unhealthy conditions, and young people.
3. Targeting geographic communities most at risk of fuel poverty: targeted support for customers struggling to afford energy.
4. Reducing carbon monoxide (CO) harm: a data-driven approach to increasing awareness and reduce risk of harm from CO.

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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.

However, there are also scenarios where solely deploying digital solutions to connect and serve our vulnerable customer groups would not provide them with the services, support and outcomes they need. We have extensive partnerships in place across Scotland, England and Wales with organisations such as Age UK, Age Scotland, Scope and Citizens Advice to name a few, which are designed to develop and deliver the right help to the right customer group in the right way, be that through digital solutions or more traditional channels such as face-to-face or through our call centre.

We have achieved British Standards Institute accreditation: Inclusive Service ISO 22458 for Energy Provision which saw all our direct-to-customer business processes audited for best practice in how we identify, engage with and serve our vulnerable customer groups.



The SGN digitalisation strategy

13 Introducing our digital framework

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Our digital framework has been developed to illustrate 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.

Linked content

Click on any of the headers below to link with the content.

<h2 style="font-size: 3em; margin: 0;">3.</h2> <h3 style="margin: 0;">Our business outcomes</h3>	<p>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.</p>	<p>Regulatory obligations SGN sustainably meets Ofgem’s expectations on Data Best Practice, Interoperability, AI and Digital Twin solutions, and aligns to legal mandates.</p>	<p>Business transformation Modernisation programme achieves performance gains by rebuilding legacy business processes as modern digital and data enabled processes.</p>	<p>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.</p>	<p>Future of Energy and innovation We pilot and implement new technologies to bring about future performance gains and influence regulators and legislators.</p>
<h2 style="font-size: 3em; margin: 0;">2.</h2> <h3 style="margin: 0;">Our platforms and capabilities</h3>	<p>Data sharing platform Allows automated access to our data sets, internally and externally, under open data or published under licence.</p>		<p>Analytics and reporting platform Allows people at SGN to analyse our data sets to derive insight and used to produce business performance reports.</p>		<p>Innovation platforms Platforms to support AI, Digital Twin and IoT which enable testing and adoption of these technologies.</p>
<p>Data lake and integration layer Data storage and plumbing that allows data sets to be accessed by other platforms</p>					
<h2 style="font-size: 3em; margin: 0;">1.</h2> <h3 style="margin: 0;">Getting the basics right</h3>	<p>High-quality data 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.</p>		<p>Digital and data governance 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.</p>		<p>People with digital and data skills 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.</p>
<p>Secure by design Our digital solutions and platforms are designed with cybersecurity built in.</p>					



14 Introducing our digital framework (continued)

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.

Our digital framework shows how the elements of our digitalisation strategy fit together and form a coherent whole. It is organised as a supporting hierarchy or stack in which the most foundational elements, 'Getting the basics right', are at the bottom. These enable and underpin every other aspect of the strategy and is where, because of their foundational nature, our investment in this digitalisation strategy is primarily focused. Building on top of 'Getting the basics right' is the 'Our platforms and capabilities' layer which provides the technical platforms we need to deliver 'Our business outcomes'. This layer includes platforms for managing and sharing data, as well as analytics, and the platforms we will need in future to support delivery of our innovation portfolio. Building on top of the 'Our platforms and capabilities' layer are the 'Our business outcomes' we are seeking to achieve, which in combination realise our Digital Ambition.

We have organised our thinking in this framework because it helps us to map strategic intent up and down the stack. For example, sharing open data sets needs a data sharing platform which sits on a data lake and accesses high-quality, governed data, that has been curated by people with data skills.

Our digitalisation strategy has been developed with our stakeholders' input but also aligns with SGN's corporate strategy and priorities.

Our digitalisation framework enables us to:

- Improve our digital culture by developing digital talent, educating, and training our people in digital skills and ways of working.
- Prioritise consulting with stakeholders to identify data that genuinely supports the GB energy networks and its transition to a modern, decarbonised, digital energy system.
- Engage with and collaborate on the premise of Presumed Open Data (POD) which is a key element of Data Best Practice Guidelines, and is necessary to enable innovation, societal benefit and our shared journey towards net zero and a more interoperable, whole-energy ecosystem.
- Share data that is both relevant and useful for customers and stakeholders, with a strong emphasis on ensuring data completeness, quality, and accuracy through continuous review to ensure its fitness for purpose.
- Develop, deliver, and demonstrate digital innovation through our approved Future of Energy and Innovation programme of work.

1. 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.

High-quality data

With increasing recognition of the value of data both internally for managing our business and externally to enable other stakeholders to develop innovative solutions and create social value, we are building data maturity and have a real focus on increasing data quality, particularly with regard to our critical data assets. We have adopted the FAIR data principles proposed by the Go-FAIR foundation (go-fair.org) and have added 'Quality' to make our Q-FAIR principles:

- **Quality** – data is fit for purpose and our people understand the value of data as an asset, data owners are accountable for data quality, and data quality is assured.
- **Findability** – data is easy to find, catalogued and described; its meta-data is machine readable and in a consistent format with industry standards.

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- **Accessibility** – data is available and retrievable using its catalogued index, and has mechanisms for authentication and authorisation built into the process.
- **Interoperability** – data is organised using consistent terms, formats and structures so that it is possible to integrate with other data sets accessed from SGN and other energy data providers.
- **Re-usability** – data is described clearly, its provenance is understood and the terms of its usage, whether under open or shared licence, are well understood.

These principles enable us to enhance the reliability of our data and provide an all-round better digital service to our customers.

Digital and data governance

To ensure all aspects of our digitalisation strategy are successfully delivered, we must understand the needs of customers, stakeholders and our organisation. In creating an understanding of these needs we can leverage them to shape the development of products and services that propel us in our digitalisation journey and generate value for the end user. We pride ourselves on our ability to do this at SGN.

We have established the IDEAS change principles, designed to ensure the success of any change initiative we embark upon. These IDEAS principles play a dual role, helping us understand the essential elements for the successful implementation of new initiatives, products, or services, and providing a robust framework for gauging the achievement of these endeavours.



15 Introducing our digital framework (continued)

The IDEAS principles:

- **Inform/involve** – keep people informed about the vision, what’s changing, why, when and what it means for them. Involve the right people in helping you design the new way of working and how it is implemented.
- **Design** – design the change so that the benefits are realised by aligning processes, systems and structures.
- **Equip** – equip people with the new knowledge, skills and behaviour they need to work in a new way.
- **Assess** – assess the context, understand what people will need to do differently and the obstacles they might face.
- **Sustain** – provide support as people get used to new ways of working and track and encourage adoption, and they also have a benefits realisation plan for this part.

Our governance ensures that our plans remain aligned to the defined needs throughout every step of the process.

Our governance process involves the completion of our ‘change strategy and plan’ workbook which ensures we have a clear and concise view of what is proposed, why it is needed, the targeted outcomes and the benefits it will bring. Completing this process allows us to pre-determine the success of the project, avoid unnecessary efforts, and ensure our teams have a well-developed understanding of their targeted outcomes. Starting the process this way ensures high success rates in meeting the needs of customers, stakeholders, and our organisation.

Our digital principles

As we look to more digital technology to enable the desired outcomes for our customers, stakeholders and staff, it’s important to us that we don’t lose sight of the value we want and need to derive. Making the right decisions around investing in digital solutions is therefore key to SGN as we engage with the energy sector’s drive towards net zero, but also in delivering safe, reliable and efficient services for our customers by investing in the right solutions at the right cost for the right outcomes.

We have defined clear Architectural Principles that align with our IDEAS principles described above to direct the design of our digital platforms and technology solutions underpinned with a framework of standards and design patterns. These will help ensure that our services are delivered with consistency, interoperability and reusability and designed to support our business goals and regulatory obligations. Our Technical Design Authority ensures alignment to these principles and guardrails through a process of design review and assurance.



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We have reviewed what skills development is needed to use digital tools effectively.



We proactively approach cybersecurity at its foundation starting with the system’s architecture.



16 Introducing our digital framework (continued)

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Be business strategy led

Align solutions to the business strategy and goals



Design for ease of use

Solutions are easy to use and support



Design for common use

We create standard solutions to serve all business organisations, customers or partners



Manage data as a strategic asset

Data is an asset that has value to the enterprise and is managed accordingly, from its creation to its ultimate deletion



Design for enterprise integration

Integration and interoperability which spans the whole enterprise from the edge to core



Digital processes with automation built in

We will leverage automation, advanced analytics and AI/ML to build intelligence into our business processes



Consolidate on core digital platforms

Consolidate business processes onto a small number of integrated core digital platforms



Invest where differentiating

Invest in best of breed solutions and development in areas that drive distinct capabilities



Reuse before buy before build

Use existing capability before buying new and only build our own solution if there is no other option



Deliver cloud-native solutions

Choose on-demand ready-to-use, cloud-hosted solutions



Make security and compliance integral

Security is a critical thread running through every aspect of a solution



Use open standards

Use of open standards to facilitate reuse and increase interoperability, efficiency and ease of communication with other systems



17 Introducing our digital framework (continued)

Our data principles

Our data principles work alongside our IDEAS principles when developing digital products and services. While our IDEAS principles govern the development and implementation efforts, our data principles guarantee we adhere to best practices in data management throughout our digitalisation initiatives.

Our data principles ensure we hold ourselves to the highest ethical standards in the treatment of data, that data ownership is defined and that our digital products are always secure and safe to use.

Our data is treated as a strategic asset, and we have a thorough approach to ensuring it is fit for purpose and delivers value. We have developed a set of data principles which we believe are crucial for creating new digital products and services successfully. We have established a data governance framework to make sure they are always upheld. These principles were designed to reflect the data best practice guidelines and they help us to guarantee that our stakeholders receive the full benefit of our efforts towards digitalisation.

1. We treat data as a shared, strategic asset.
2. We aim for continuous improvement and excellence in the way we generate value from data.
3. We hold ourselves to the highest ethical standards in the treatment of data.
4. We have guidelines in place to ensure accountability for data assets, insights and actions.
5. We believe in sharing data freely with those who can benefit from it.
6. Data ownership is defined to maintain quality and maximise the benefit from our data.
7. Our data is secure, and our digitised systems are safe to use.
8. Our data is recorded and classified using common standards to make it findable and reusable.

Our governance process ensures the success of our ventures as we move through the steps of our digitalisation framework. It is a key enabler in ensuring value will be derived from the capabilities, platforms, and any future digital services we develop as part of this strategy. It will also be applied to any data used internally and any data that we share as open data or under licence.

People with digital and data skills

Our highest value asset is our people. We understand that our employees are the key to the successful delivery of this digitalisation strategy. A modernised workforce, achieved through digital enablement, talent recruitment, and the upskilling of our existing employees with data skills are all vital to support our digital transformation.

Over the coming years, we have plans to recruit significant numbers of frontline engineering staff. There has been a long-standing skill shortage in the utilities sector, and we are addressing that by enhancing the training of our employees and apprentices as well as creating a new senior role, Director of Capability. We have also reviewed our workforce and digital toolset to assess the benefits of our digital tools, what skills development is needed to use these tools effectively and how can we assist our employees in using them.

To develop digital and data skills within our employees, we have developed a new core education programme that solely focuses on technology tooling and the data skills of our frontline workforce. This programme lasts four and a half weeks and covers the whole digital side of our employees' roles. Our employees learn how to understand data, how to use our specific systems and how to effectively input data from the projects they are working on. Efficient data capture by our people underpins access to high-quality data across our business.

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All new starters complete foundational training in our devices and digital tools, teaching them how to use our systems to find and understand data. We intend to develop this training further and introduce role-specific training for digital skills, such as gas leakage monitoring or geospatial work using GeoField.

Through our training programmes we ensure our people develop the skillset to best use data and our digital tools. We seek to ensure that our employees understand the value of data and have the skills they need to unlock the huge potential that it provides. In future, every training session we provide to our employees will be fully interactive to ensure they have hands-on experience of the tools they will be using in the field. To ensure our employees' knowledge is up to date, we will also be conducting continuous competency inspections, testing them on how they input data and use the digital tools available to them.

To develop skills and competences for those responsible for data we provide data ownership and management training to our back-office employees, ensuring security, efficiency and informed decision-making in matters surrounding data. We plan to ensure that our people will benefit from data literacy and analytics training, strengthening their ability to understand, interpret and leverage data effectively.

We plan to promote a data culture across SGN as we take the steps to ensure our people understand the value of data and have the skills to analyse it and derive business insight from it.



18 Introducing our digital framework (continued)

Secure by design

As a Critical National Infrastructure (CNI) provider we fully understand the risks associated with cyber-crime. Addressing and mitigating these risks is a priority for us, and Information Security (IS) is ingrained across all of our business operations.

In our ongoing focus to minimise potential disruptions caused by cyber-crime, we are adopting cutting edge digital security measures. Among them is the adoption of the National Institute of Standards and Technology (NIST) Cybersecurity Framework. This framework serves as a robust tool to enhance our ability to effectively manage cyber threats, ensuring the safety and resilience of our digital services. Our commitment to incorporating advanced security practices reflects our dedication to maintaining a secure and resilient CNI.

The NIST Cybersecurity Framework:

- **Identify:** understand and prioritise assets, risks and vulnerabilities.
- **Protect:** implement safeguards to ensure the security of critical infrastructure.
- **Detect:** develop and implement activities to identify the occurrence of a cybersecurity event.
- **Respond:** develop and implement plans to respond to a detected cybersecurity event.
- **Recover:** develop and implement plans for resilience and to restore any capabilities or services that were impaired due to a cybersecurity event.

Alongside the implementation of new security measures, we regularly conduct assessments of employee awareness throughout the year. Additionally, we provide a comprehensive training programme to develop a high base level of digital security skills across our workforce.

Our collaborative efforts with Ofgem, our regulator, will be instrumental in continuing to shape and enhance our cybersecurity investment plans. We are also committed to advancing the recommendations outlined in the the Energy Digitalisation Taskforce (EDiT) report which emphasises the adoption of digital security measures that are not only purpose-fit but also centred on addressing cascade impacts, zero-trust principles, and fostering a culture of information sharing. These strategic initiatives underscore our dedication to maintaining a robust and adaptive cybersecurity framework.

At SGN, we proactively approach cybersecurity as a foundational capability when designing and developing new solutions and this means starting with the system's architecture. Our architecture framework includes a comprehensive Cybersecurity Architecture Strategy that sets out how we will achieve the goals of the overarching Cyber Strategy across our technology estate and a defined set of Security Architecture Principles, aligned to National Cyber Security Centre best practice that guides the design of services and systems:

1. **Confidentiality:** ensure that data is protected against unauthorised disclosure.
2. **Integrity:** ensure that data is protected against unauthorised modification or destruction.
3. **Availability:** ensure that data, systems and services are available when they are needed.

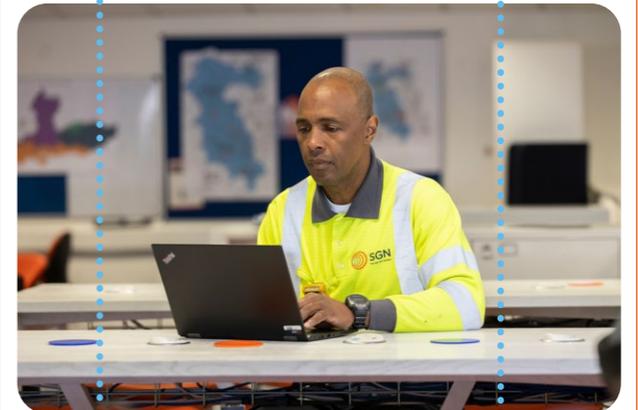
4. **Identity and access control, including principles of least privilege, separation of duties, need to know and zero trust:** ensure that data, systems and services are only accessible to those individuals and services that are authorised to access them.
5. **Defence in depth:** take a layered approach to security.
6. **Secure by design:** consider security context and risk profile from the outset and design services to minimise the risk of compromise and disruption and to make detection and recovery easier.
7. **Design for failure and fail safe/secure:** ensure services are resilient, robust and available and, if they should fail, that they do so in such a way that does not allow data to be compromised.
8. **Minimise attack surface:** ensure that systems and services are configured and patched to minimise risk of compromise.
9. **Third party assurance:** ensure that third-party services and suppliers adopt a security posture that protects our data and services.
10. **System security controls:** apply appropriate controls to systems, services and end user equipment.
11. **Security monitoring and logging for traceability:** monitor the status of critical systems and user behaviours and carry out appropriate logging to support detection and response to cyber incidents.
12. **Response and recovery:** ensure that processes are in place to respond to and recover from cyber incidents.

By adopting this approach, we create technology products that our customers, stakeholders and staff can trust for their privacy, safety and security.

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We create technology products that our customers, stakeholders and staff can trust for their privacy, safety and security.

↓
The NIST Cybersecurity Framework serves as a robust tool to effectively manage cyber threats.



19 Introducing our digital framework (continued)

2. Our 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.

The next phase involves using our high-quality data foundation to implement digital platforms and elevate our digital capabilities. This encompasses the creation of platforms dedicated to data sharing, analytics, reporting and innovation. This strategic infrastructure development will allow us to better store and manage large volumes of data, improve data accessibility, and empower our employees to utilise data more efficiently, promoting safer and more efficient operations.

Data lake and integration layer

Our data lake and integration layer is essential to our digitalisation strategy. To make sense of the vast quantities of information that exists across our

organisation, our approach involves centralisation and standardisation of this data, ensuring we don't miss out on valuable insights.

We are working to identify all potentially valuable information within our business and make it available in a central data repository, which integrates and standardises information sources. These information sources can include both structured and unstructured data residing in production databases or as images and documents.

By centralising this information securely in a virtualised data lake, we create efficient data flows and the data foundations that underpin data sharing, analysis, reporting and innovation.

The development of a data lake and integration layer is an ongoing activity. We are most focused on our critical data assets that are in demand by our people and stakeholders, and which drive valuable insights by refining, tuning, and developing the data foundations over time to continuously improve the performance of the platform and the value potential within it. This will become a critical part of our data infrastructure.

Data sharing platform

One of the key strands of our digitalisation strategy is developing the capabilities for sharing our data as part of our collaborative journey towards net zero and delivering societal benefits.

It is important to us that our stakeholders and data consumers have the ability to understand, find and access the data assets they need to innovate, support their business priorities and inform their plans for net zero. We are also aware of the recommendations under the EDiT report and in particular the development of a Data Sharing

Infrastructure to facilitate the interoperability of energy data.

In 2023, we launched our Open Data Portal which sits alongside our existing data sharing services to provide our stakeholders and data consumers with access to the open and shared data sets they require. However, in line with the feedback our stakeholders and data consumers have provided along with our desire to be able to engage with a more interconnected whole-energy system, we will be developing our data sharing capabilities by establishing Data Operations (DataOps) which will bring about a 'single-stop-shop' experience via a single Data Sharing Platform.

This will provide our data consumers with access to curated, trusted and secure data pipelines at scale, in the formats needed in an efficient and effective way.

Analytics and reporting platform

A key factor in the success of our digitalisation strategy is the ability to produce actionable insight and make evidence-based decisions to improve our business performance. We will develop our existing suite of analytics and improve speed of access to insight across our business. This will provide us with greater visibility of our environment and become a more adaptive and responsive organisation.

The provision of self-serve analysis capability across our business will allow employees to produce information to support their decisions quickly and effectively. This capability will help us gain a deep understanding of our business, identify, and solve performance issues, highlight opportunities to take action and introduce a culture of continuous improvement in everything we do.

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Innovation platforms

Put simply, robust digital foundations will enable us to innovate. Use of state-of-the-art technologies such as AI and Digital Twin are becoming increasingly common place. Within the context of putting the majority of our investment and effort into achieving fundamental digital and data maturity by getting the basics right and developing the platforms and capabilities we need, we will innovate where it makes most sense to do so. Our experiments and innovations will be focused where we can embed and operationalise new capabilities where we can prove value, such as through our successful SIF Beta phase funding application for the Intelligent Gas Grid project.

We are leading the collaborative Intelligent Gas Grid project, which explores the use of AI in the energy sector. The project aims to develop ML and AI applications that optimise network pressures and provide insights on network performance. We will be able to use this data and AI technology to reduce leakage and increase the capacity for renewable gases, supporting our commitment to creating a shared net zero future. Taking this iterative approach to embedding innovation in our business will help position SGN as a leader in the market.

The development of innovative platforms which harness new and emerging technologies will enhance our ability to manage our network, drive operational efficiency, increase safety, help decarbonise the energy system, and lower costs to customers.



20 Introducing our digital framework (continued)

3. Our business outcomes

By leveraging our improved platforms and capabilities alongside foundational digital and data skills we will achieve key business outcomes that create value for our customers and stakeholders. Achieving these outcomes is the means to realising our digital ambition and making a positive impact to society through the services we provide. Our priority is to uphold regulatory standards by providing a safe and efficient service for our customers while progressing towards net zero.

We will ensure compliance with regulations while driving business transformation. Building upon our growing digital and data capabilities will allow us to improve performance by modernising legacy business processes and fully utilising data and analytics. We will be able to explore and implement future technologies and ensure our digital products and services are inclusive, secure, sustainable and reliable.

Stakeholder and societal value

Our digitalisation strategy has been developed with the input of our stakeholders, prioritising their needs. Throughout our continued efforts towards digitalisation, we're committed to bringing value to them. Our robust foundation and purpose-built capabilities and platforms have been developed with stakeholders in mind and help ensure our digital and data products are inclusive, secure, sustainable and reliable.

Ongoing investment in our data sharing platform and Data Operations capability will support the journey to achieving net zero by providing stakeholders with the access to the data they need to innovate and develop solutions for a net zero future. It is our aspiration, through continued engagement with our stakeholders, to create social value by increasing the range of data products we currently offer as well as the ease with which they can request and access those products.

Data on network pressure and demand is a critical enabler of our strategic aim to reduce network leakage by managing pressure reduction, and also for planning the introduction and blending of biomethane – which drives towards net zero. These examples illustrate the real and practical linkage between digitalisation and the creation of real-world social value.

Regulatory obligations

SGN sustainably meets Ofgem's expectations on Data Best Practice, and Interoperability, while aligning to legal mandates. We will work alongside our sector colleagues to participate in the data sharing infrastructure in pursuit of greater energy system effectiveness and decarbonisation of the energy sector.

Through robust data management practices, we ensure the reliability, security, and accessibility of data, thereby enhancing safety and operational efficiency through informed decision-making. By developing interoperable systems, we will facilitate seamless communication and collaboration with our stakeholders, promoting innovation within the industry. By harnessing AI technologies, we enhance safety across our network. The implementation of system-wide monitoring and modelling solutions



↑
Our principles enable us to provide an all-round better digital service to our customers.

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enables the creation of virtual replicas of physical assets, facilitating real-time monitoring, analysis, and simulation to improve performance, such as our SIF Beta-funded Intelligent Gas Grid project.

Our commitment to these practices not only enables us to provide a safe and efficient service but also ensures compliance with legal mandates, fostering a sustainable and future-ready gas distribution network.

Business transformation

Our focus on 'Getting the basics right' will provide us with the foundations to be able to continually develop our capabilities and platforms, transforming our organisation to become digitally led. We will apply these capabilities to our Modernisation Programme and continually assess our business processes to highlight where improvements can be made. This programme will enable us to rebuild legacy business processes as modern digital and data-enabled processes, achieving performance gains, and further digitalising the business.

The digitalised processes will positively impact our organisation and our stakeholders. We will be able to deliver a safe and efficient service that better serves our communities and vulnerable customers, while decarbonising our energy solutions and to achieve our net zero goals.



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Business excellence

Our commitment to achieving business excellence is driven by prioritising the safety and efficiency of our services. We will improve our operational efficiency by ensuring our workforce have access to the right digital tools. This commitment not only enhances the safety of our employees and customers but also enables us to deliver a more reliable service.

Empowering our employees with the right technology will facilitate real time monitoring of work environments and identification of potential hazards. It will enable the streamlining of processes so that our employees can communicate and collaborate more effectively and focus on activities that will generate value for our customers.

To help us achieve this we are rolling out the Maximo Anywhere platform across our organisation. Maximo Anywhere is a modern and easy to use data capture and integration platform which will allow data to be inputted by engineers accurately and on the go. Our engineers will be able to use the application on all devices and it will give them better access to the data they need to complete their jobs, streamlining the process for them and reducing interruptions for our service users. Engineers will also be able to upload data onsite, themselves, without having to send it to another party. This will not only decrease the time taken to upload and share data but also reduce the chances of errors in the data through miscommunication, supporting improved data quality.

Future of Energy and innovation

Our improved capabilities and platforms will allow us to develop and implement innovative new technologies within our organisation and across our services. These technologies will place us as industry leaders and bring about performance gains and added value to our customers.

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.

The new technologies and methodologies we will be able to develop will provide us with a better understanding of our processes and services and increase our ability to continually improve them. Innovation will also help enable the successful transition towards decarbonisation of gas and support us in delivering our net zero goals.

We are already working on innovation projects and rolling out new digital capabilities which, alongside our digitalisation platforms, will increase our performance and bring value to our customers.

We are committed to ensuring our operational digital platforms are modern and easy to use to enable our engineers to capture data accurately as they work.



We're rolling out digital platforms across our organisation.



Digitalisation project showcase

23 Digitalisation project showcase

The hydrogen project - H100 Fife

H100 Fife aims to decarbonise gas networks in alignment with government net zero targets by exploring hydrogen as a sustainable alternative to natural gas. H100 Fife will incorporate new methods and technologies to manage, run and operate the world's first hydrogen gas network.

The project will switch carbon-emitting natural gas for hydrogen, which doesn't produce carbon when it burns. Digital technologies are integral to successfully decarbonising the gas system by providing the necessary visibility of our networks to take informed operational decisions and enabling us to continue to deliver gas to our customers safely and reliably. This is one of the digitally enabled ways that we can keep homes and businesses warm and safe while making ground in the fight against the climate emergency.

Digital capabilities enable the remote monitoring and control of hydrogen production, storage, and distribution processes. This capability enhances safety, reliability, and responsiveness in managing the hydrogen infrastructure.



Our Predictive Safety Interventions project aims to assist every field worker to take corrective actions and put unsafe conditions right in real time.



A range of green technologies will go into H100 Fife's end-to-end green hydrogen network.



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Predictive safety interventions

In collaboration with our partners at Fyld, we are leveraging digitalisation to implement predictive analytics for safety interventions through our SIF Beta phase funded Predictive Safety Interventions project.

The project aim is to assist every field worker to take corrective actions and put unsafe conditions right in real time before they develop into something more serious. This project is further developing the prediction model from the Discovery and Alpha phases by increasing data inputs into the model to include human behaviour factors such as fatigue and field worker behavioural changes, alongside live situational data including local traffic and roadworks, with further development of the object recognition model.



24 Digitalisation project showcase (continued)

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Leakage management in the energy system transition

We are developing capabilities that allow us to undertake analysis of the natural gas leakage rates of above ground installations. This digitally enabled project will improve the way we estimate leakage rates and improve our understanding of their causes.

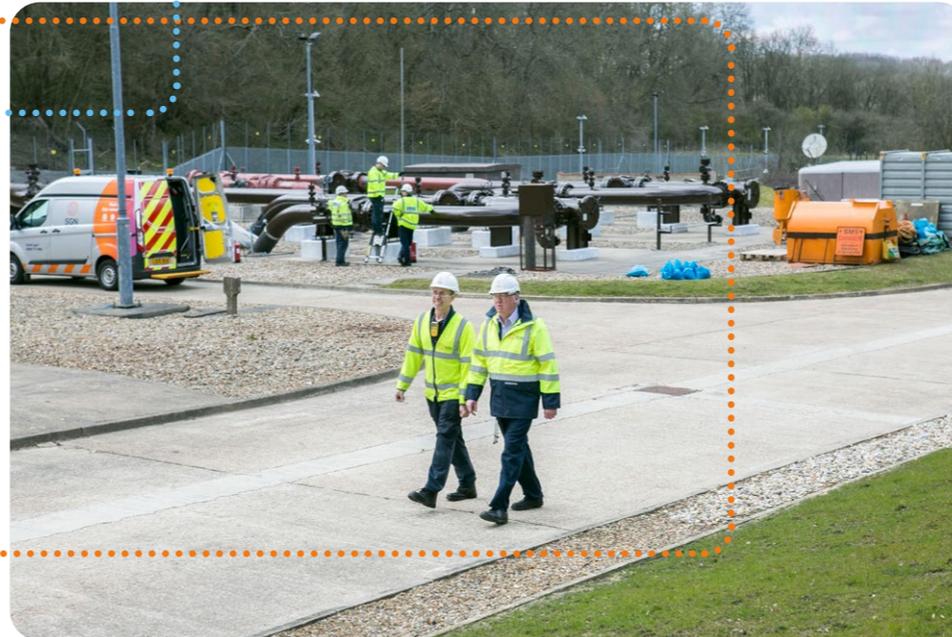
Developing our understanding of the problem will allow us to reduce methane leakage, providing vast environmental benefits.

This project will also allow us to consider how the leakage of hydrogen from future, converted gas networks can be accurately monitored, allowing it to be reduced and minimised.



← Our project will improve the way we estimate leakage rates and improve our understanding of their causes.

↓ Our intelligent gas grid project will lower costs to customers.



Intelligent gas grid

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

The applications developed under this project will reduce methane leakage and increase the feed-in capacity of renewable gases including biomethane and hydrogen.

The project is aiming to use energy data and AI to reduce methane leakage and increase the feed-in capacity for renewable gases. Once developed, the project will lower costs to customers, enhancing network management activities and help to decarbonise the energy supply.



25 Digitalisation project showcase (continued)

TapSOS - digitalisation of the emergency number

As part of our ongoing commitment to innovation and inclusivity, SGN has partnered with Inclutech, aiming to transform the National Gas Emergency Service numbers into a digital platform.

The partnership has arisen from the recognised need to make communication with gas networks more accessible, particularly for vulnerable customers who may encounter barriers in understanding or communicating their needs with more traditional channels of communication.

The project is aiming to set new standards for communication within the gas network industry, bringing about greater ease of communication, inclusivity and efficiency.



← We're working with Inclutech to make sure everyone can use the National Gas Emergency Service.

The solution will be developed to allow a full sensor to cloud approach, reducing the human operator oversight at each network facility.

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Phoenix IIOT demonstrator

There is a requirement to modernise our network energy systems to improve efficiency and longevity of our network infrastructure, which is critical in meeting net zero targets. With the adoption of smart technology there is an increased risk of cyber-attacks, so it is essential that we implement a solution that provides maximum security of our infrastructure.

This project centres on a ground-breaking concept and uses trusted technologies which combine innovative real-time control with state-of-the-art cloud technology. The solution will be developed to allow a full sensor to cloud approach, reducing the human operator oversight at each network facility and facilitates extracting real-time asset data, which feeds our predictive analytical and ML solutions for automated network optimisation and maintenance.





Our Digitalisation Strategy Action Plan

27 Our approach to implementation

Our data and digital strategy will be implemented across our organisation via our digitalisation framework. Following the stages and achieving the outcomes provided by the framework will ensure our digital success translates to added value for our customers and stakeholders.

This strategy is backed by our Digitalisation Strategy Action Plan (DSAP), which details the progress of the projects and initiatives through which we are delivering this strategy. They are both anchored in the feedback we have received from our stakeholders and delivering their identified needs and priorities.

All of the projects in our action plan are aligned with this strategy and delivering our GD2 business plan commitments.

Stakeholders will have the opportunity to share their opinions on the success of our projects and initiatives.

We share our progress with you every six months through our DSAP updates. Each iteration of our action plan will allow you to see how we are implementing our strategy at all levels of our organisation. We report our progress, realisation of benefits and the delivery of outcomes.

Our regular DSAP updates allow us to seek out further input from our stakeholders into the delivery and anticipated benefits of our projects. Stakeholders will have the opportunity to share their opinions on the success of our projects and initiatives.

We are committed to the achievement of digitalisation through the delivery of our strategy.



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Our digitalisation framework is in place to deliver digital solutions for a safe and resilient network for our customers, stakeholders and employees for the remainder of GD2 and into GD3.



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

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As part of our six-monthly publication of the Digitalisation Strategy Action Plan, we will be providing updates on the following key success measures.

Success looks like	Measures (shared via DSAP)
<p>Our critical data assets are being identified and catalogued in line with Data Best Practice Guidelines requirements.</p>	<ul style="list-style-type: none">• 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.
<p>We are investing in applying QFAIR principles to our critical data assets and they are trusted.</p>	<ul style="list-style-type: none">• Updates on the number of critical data assets identified are being kite-marked to indicate level QFAIR principles that have been applied.
<p>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.</p>	<ul style="list-style-type: none">• 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.
<p>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.</p>	<ul style="list-style-type: none">• We will provide details of our stakeholder plans, the events held, feedback received and our resulting plans.
<p>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.</p>	<ul style="list-style-type: none">• We will share information on our plans for communication, training, and development pathways for our staff, along with updates on progress.
<p>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.</p>	<ul style="list-style-type: none">• 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.



Glossary of key terms

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Term	Definition
Digitalisation	The digital transformation process involving the integration of digital and data-centric technologies into all areas of a business, leading to fundamental changes in how the business operates and delivers value to its customers.
Consumer	Users of gas network services, including domestic and business end consumers and representatives.
Consumption	This is the amount of energy used.
Decarbonisation	The process of reducing or eliminating carbon dioxide (CO ₂) emissions produced by natural gas.
Demand	The amount of energy (in kWh) required by consumers, which is derived from the volume of gas consumed and its energy content.
Energy Data Taskforce (EDTF)	A group of data experts commissioned by the former Department for Business, Energy and Industrial Strategy (BEIS), Ofgem, and Innovate UK that have made five recommendations for maximising the value of data in the energy sector.
Energy Digitalisation Taskforce (EDiT)	EDiT built on the EDTF recommendations. It considered the market design, digital architecture and governance of a modern digitalised energy system. The Taskforce delivered a set of six actionable recommendations needed to reach net zero.
Geospatial data	Information about the geographical features, characteristics, and attributes of locations, like the infrastructure of the gas network.
Net zero	The UK's total greenhouse gas (GHG) emissions are equal to or less than the emissions removed from the environment. This goal can be achieved through a blend of reducing emissions and enhancing removal processes.
Network Infrastructure	Data detailing the gas network, including the location and specifications of its equipment.
Open data	Data that is made accessible to all with no restrictions on usage, modifications or distribution.

Term	Definition
Presumed Open Data (POD)	Data is made available to all to use, modify and distribute, unless issues are identified which could restrict its level of openness.
Priority Service Register (PSR)	A free support service available to those in vulnerable situations to ensure extra help is provided.
RIIO-GD2	The gas distribution price control reflects the RIIO (Revenue = Incentives + Innovation + Outputs) framework. It sets out the expected outcomes the eight Gas Distribution Networks (GDNs) should deliver for energy customers over a five-year period from 2021-26.
RIIO-GD3	The gas distribution price control reflects the RIIO (Revenue = Incentives + Innovation + Outputs) framework. It sets out the expected outcomes the eight Gas Distribution Networks (GDNs) should deliver for energy customers over a five-year period from 2026-31.





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