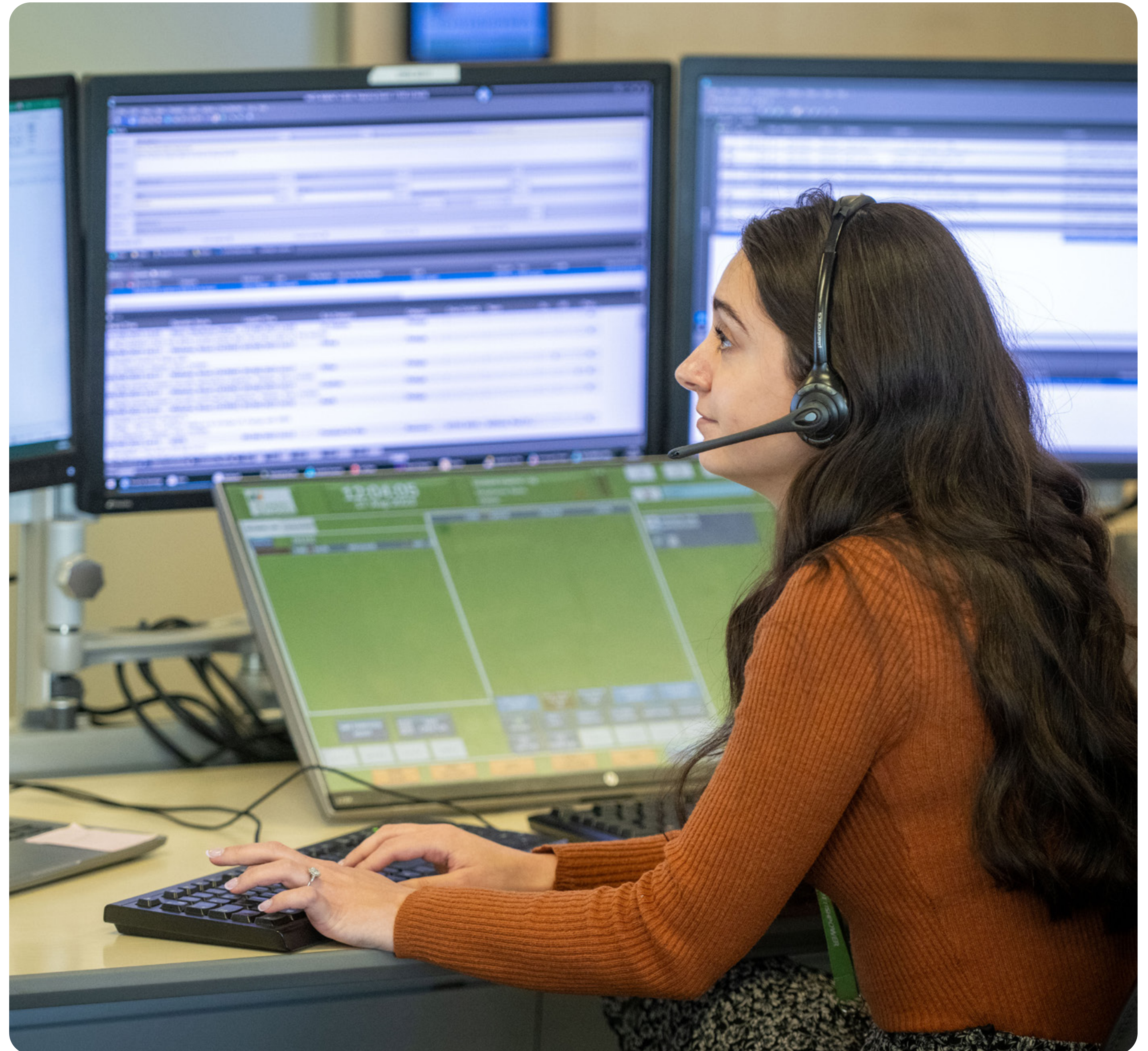


SP Energy Networks

Digitalisation Action Plan December 2023 Update



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This Digitalisation Action Plan reflects on the progress we have made on our digitalisation and data initiatives since our last update in June 2023, and shares our plans for the next six months as we progress into 2024.

We are continuing to make progress in delivering our wide ranging and ambitious RIIO-ED2 program of work, with an increasing number of projects and initiatives underway since our last update. These projects and initiatives will bring many benefits for our customers and stakeholders, while also contributing to delivering a modernised energy system for the transition to Net Zero.

Lynda Ward
Business Transformation Director



The last 6 months have seen a further ramp up in projects being mobilised, with a number of key initiatives now well underway such as the ongoing implementation of our new Customer Relationship Management (CRM) systems across our Distribution and Transmission businesses, and our new mobile and scheduling platform. Both of these solutions are being built utilising cloud-based Salesforce software which is part of our enduring strategy to implement a consistent business application that benefits both our workforce and our customers.

In March 2024 SPEN will publish an update to our SP Transmission Digitalisation Strategy which will outline our current position and how the strategy has evolved since it was originally created at the start of the RIIO-T2 period. 2024 will also see us develop our 5 year business plan for the RIIO-T3 price control period. We expect our data and digitalisation strategies to be key enablers on our path to transitioning the network to support the evolving requirements of our customers and stakeholders. We look forward to engaging with stakeholders and customers in the creation of our business plan.

In our last update, we highlighted that we had planned to submit further SPT digitalisation investment proposals as part of the RIIO-T2 re-opener process. Since then, we have carried out analysis on the current and planned portfolio of digitalisation projects for our Transmission business and have made the decision to not progress with a re-opener submission at this time. Instead, we are focusing on the delivery of the key projects already underway in RIIO-T2 and the creation of our business plan for RIIO-T3.

Earlier this year we successfully launched our online Open Data Portal. This portal can be accessed freely by our customers and stakeholders via our website, allowing users to search, view and export datasets in simple, standardised formats, supporting them in fields such as academia, consulting, business development and innovation. Since the launch, we've received positive feedback from our stakeholders about the accessibility of our data and we are actively working with stakeholders to identify opportunities for enhancement and development.

Within our Business Transformation team we have fully transitioned to our new team structure which is designed to streamline the focus on our business processes, while helping us move at the pace needed to deliver the digital transformation and meet our change goals for RIIO-2, and to enable a Net Zero Future. This team structure ensures our skills and competence is aligned with our 6 Digitalisation Pillars which were identified following our initial RIIO-2 customer and stakeholder engagement. Our digital transformation is underpinned with investment in the digital skills of our people, with an increased focus in cybersecurity training and awareness to highlight how our teams can identify and respond to potential cyber threats.

Recently, we have received feedback from Ofgem in relation to both our Digitalisation Strategy published in March 2023 and our most recent Digitalisation Action Plan update in June 2023. We are pleased to have received positive feedback from Ofgem with respect to our strategy being both detailed and insightful, and that the Digitalisation Action Plan is effective at communicating a vision for SPEN's future digitalisation goals while presenting it in an easily consumable language for the reader. This is encouraging to hear and we will ensure that we continue to define and present our updates going forward in this manner.

Ofgem also provided a number of recommendations for improvement, which we will incorporate into future Digitalisation Strategy and Action Plan updates. For example, in this document we now have a dedicated section explaining how we will continue to provide services to our most vulnerable and digitally excluded customers as the adoption of digital technologies grows.

All updates to our Digitalisation Strategy and our Digitalisation Action Plans are available to view online in a user friendly, digital format and we will continue to evolve [this website](#) based on your feedback. We value your input to ensure we are on the right track to deliver efficiencies for our customers and stakeholders. You can contact us with your views and submit information requests.

6 Month Highlights

We continue to make good progress delivering our ambitious RIIO-2 programme of work, and have seen successes outlined below in the last six months.

£22.5m

Q3/Q4 2023 Investment

Since June 2023 we have invested £22.5m million in our digital initiatives to align with our data and digitalisation strategies and we are on track to deliver against our RIIO-2 commitments.

£25m

2024 Digital Investment

We will invest £25m on digital solutions in 2024 and in the last 6 months we have planned and authorised 80% of this investment to specific digital projects. Individual projects are coordinated via our digital architecture team to ensure they align with our strategic objectives.

200+

Open Data Requests

In the last year, our Open Data team have successfully facilitated over 200 requests for access to our data. This has included requests for information on the location of our network assets, the capacity of our network, and the investments we have delivered.

31

Change Practitioners Trained

We recognise a need to increase our change capability and leverage expertise across our business. We have been training individuals to be expert change practitioners and established a community to share coach and support these individuals.

450,000

Land Right Contracts to be Scanned and Digitised

Project underway to scan and digitalise historical land rights contracts. These contracts date from 1920 to 2020 and this activity will take approximately 16 months to complete.

+23%

Increase in Business Transformation Resources

Our Business Transformation department has grown in size by 23% over the past 6 months with plans to increase by 44% compared to June 2023 levels in early 2024 further showing our commitment to delivering on our digital strategy.

30M+

Rows of Data Published in Open Data Portal

Open Data Portal is hosting over 30 million rows of data, all publicly available with key datasets like the Network Flow (Power, Current and Embedded Generation) being updated frequently.

108,000+

Open Data Portal Views and API Calls

Open Data Portal users are engaging with our datasets with over 108k portal interactions through the API or portal. Our Embedded Capacity Register and Network Flow datasets are the most popular.



Stakeholder Engagement

In SPEN we engage with a huge range of customers and stakeholders to understand what they require both now and in the future. Their feedback and priorities have been aligned to three strategic pillars that sit across SPEN and provide a consistent focus for our business, enabling us to deliver our ambitious agenda. We have tested our Digitalisation Strategy approach and shaped it through engagement with our customers and stakeholders.

Within each business initiative we have identified performance metrics to track the success of our deliveries. As each project progresses we engage further with our customers and stakeholders, to build on and maintain alignment with the metrics, adding the actual values to assess the realised benefits. This is a dynamic process as business and customer priorities change during the RII0-2 period, and is revised and published here, and in our Digitalisation Strategy every two years. This enables us to identify stakeholder priorities and deliver benefits early whilst maintaining our overall vision for a modern digitalised energy network.

Stakeholder Engagement in Action:

Connections Website Enhancements

We continue to use customer engagement in the refresh and development of our website, testing the new connections website and the online connections self-service tool with them. Market research sessions highlighted the need to simplify the customer journey on our online connections process, offering users better support and a more intuitive interface. With this feedback we streamlined the number of pages requiring completion to make this process straightforward. We continue to utilise customer research to define and shape future website developments.

Consolidated CRM

Our customers told us what is important to them is clear and accurate information, in a format that suits them. In 2023 we launched a new Customer Relationship Manager (CRM) and Telephony solution for Customer Service, "Total Customer", to implement cutting edge technology across all of our customer service processes. Using customer feedback we have built a programme that meets the needs of our customers for the future while implementing technology that will be constantly evolving ahead of customer needs.

Open Data Portal Developments

Access to data and information is a key enabler in our ability to achieve Net Zero. Through our ongoing engagement with stakeholders, we have outlined their needs for access to data about our network for development plans, enhancing project proposals, and understanding their impact. In response, our Open Data Portal has been developed to streamline the process to share data openly with our stakeholders. We will continue to publish additional datasets on our Open Data Portal to align with our Stakeholder priorities, alongside working with other licensees through various working groups to aid standardisation across the UK Energy Sector.

Further detail on these initiatives outlined here can be found in the relevant sections of this document.

External Accreditation

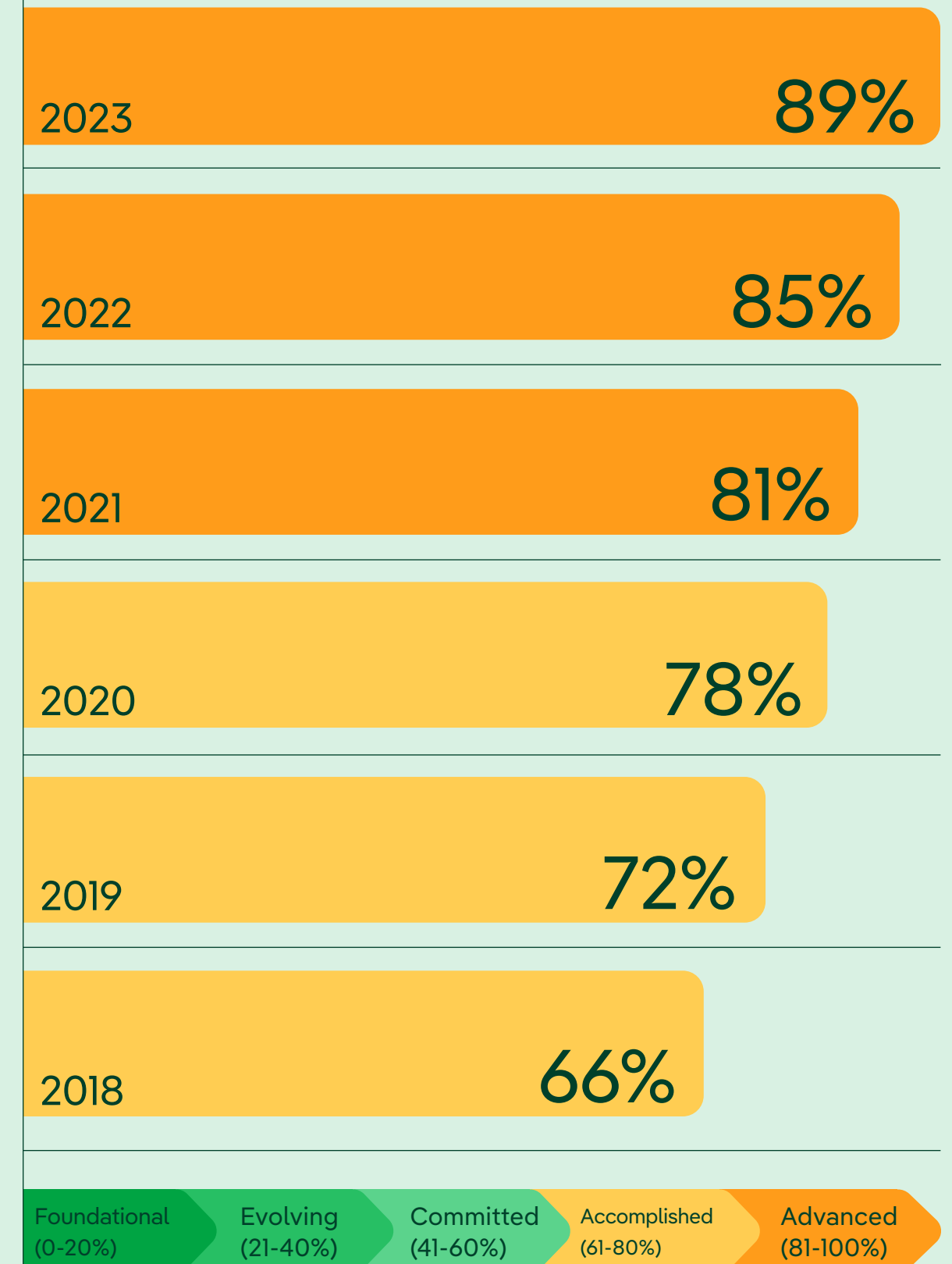
To support our programme of continuous improvement and the development of high-quality stakeholder engagement practices, we enlist AccountAbility, an independent company who own the global standard for stakeholder engagement, to conduct an audit of our engagement strategy and processes.

This robust and comprehensive assurance and accreditation programme is aligned to the principles of inclusivity, materiality, responsiveness, and impact against the AA1000SES global standard for stakeholder engagement.

We have once again improved our AccountAbility Health check score in 2023, achieving an 89% rating, one of the highest scores ever achieved globally.

Looking ahead, we remain fully committed to our work with AccountAbility, and have embedded this commitment within our future business plans to ensure we continue to learn from best practice and develop industry-leading engagement with our customers and stakeholders.

AccountAbility Health check Progress



89%
Health check rating achieved in 2023

Vulnerable and Digitally Excluded Customers

Supporting Vulnerable Customers

As part of our overarching customer service strategy, our aim is to deliver brilliant, tailored service to our customers with a particular focus on vulnerable customers and their specific needs.

In 2023 we embarked on our programme to deliver a CRM platform and integrated telephony as an enabler to deliver choice to our customers. This programme will conclude in 2024 with ongoing enhancement every month thereafter.



Examples of support we are delivering to our vulnerable customers through digital channels as part of our programme of work:



We will proactively contact customers through their channel of choice



We will contact customers in their language of choice



We have systems to capture customers specific vulnerability needs during a power cut and are able to track these through to delivery to ensure our customers are supported



Dedicated teams work in our community to reach customers to sign them to our Priority Services Register and discuss wider support services with them. These are registered and tracked through our systems to ensure delivery via our network of partners to provide satisfaction with the service we provide



We are developing a portal to be used by SPEN and our network of partners to share services easily to deliver a wider range of support for customers depending on their need



We are exploring innovation initiatives to support customers who have gone through the digital switchover to ensure we can communicate effectively in the future.

Reaching Digitally Excluded Customers

Customers can experience digital exclusion due to:

1. A lack of access to devices
2. A lack of confidence in access to digital channels
3. A lack of digital skills

The result of this is that they can be;

1. Exposed to lower earnings
2. Miss out on opportunities available to others
3. Find it harder to access service
4. Suffer social isolation



Examples of ways we support digitally excluded customers:



Engage with our customers in various ways including face-to-face and doorstep engagement, workshops and outreach to ensure we reach customers through non digital channels and they help us shape our services



Deliver services to our customers which fit their ever-changing needs to tackle the impact of digital exclusion such as Befriending Services, Fuel Poverty Support, Help accessing Low Carbon Technology



Communicate with customers via land lines if they have no mobile devices and ensure the service is to the same quality



Create a culture in our contact centres of kindness and support to ensure our teams look for ways to help customers whatever their need



Engage face-to-face with customers when we are planning to carry out work. Our field teams visit customers 6 weeks ahead of work to ensure they understand what will happen and we support our customer's needs.

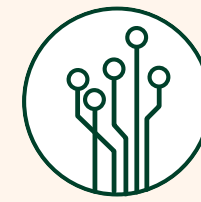
Our 6 Digitalisation Pillars

Our Digitalisation Strategy is supported by six key pillars that have been developed following customer and stakeholder engagement, to help us to measure and deliver success.

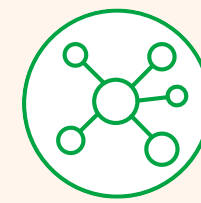
Over the following pages we detail our projects alignment with its digital pillar, breaking down a description of the project and its goals, the progress made over the past six months, an overview of activities planned for the next six months and how we will measure its success.



Our Digitalisation Strategy Facilitates the Delivery of our RIIO-2 Programme:



Using Digital Technologies to Deliver Enhanced Customer Service



Optimised Asset and Network Management



Developing Options to Manage Peaks in Load



Supporting the Development of New Business Models and Markets



Investing in the Digital Skills of our People



Improving Mastery of our Data

As part of the development of our RIIO-ED2 business plan, we developed and published our first Data Strategy. An element of this is the 'Mastery of Our Data' – below is an update on some of our Data Strategy Pillars:

Intelligent Data Operation and DataOps

Our data projects are leveraging our Azure cloud platform (Synapse) for delivering within a DataOps framework for repeatable and scalable deployments – three developments are included in this current period.

People and Culture

Our Data teams are expanding and we are developing our capability model to ensure high quality and high value project deliveries.

Data Governance

It is critical that we have strong governance as our data set grows. As we expand our cloud data, each is being iteratively added in our Information Data Governance tool, complete with data lineage and cataloguing.

Data and Analytics Capability Model

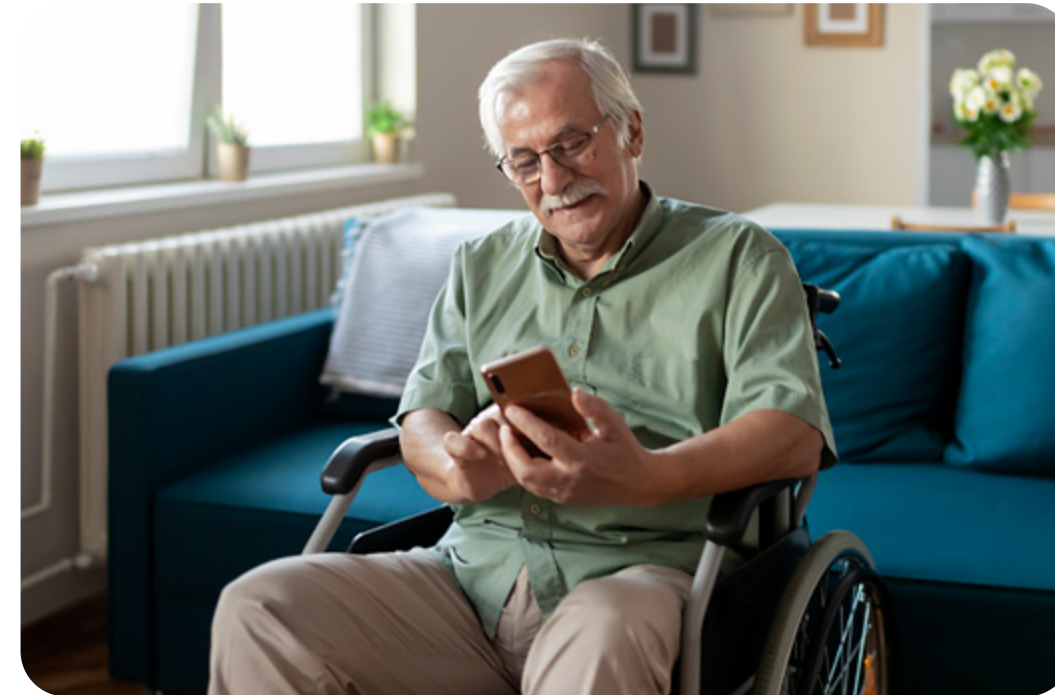
- 1. Purpose and Strategy
- 2. Operating Model and People
- 3. Data and Technology Capabilities
- 4. Policies and Standards
- 5. Service Design and Operations
- 6. Quality Assurance
- 7. Value and Cost Management



Using Digital Technologies to Deliver Enhanced Customer Service

Digitalisation of our services helps us create a tailored approach to prioritising the needs of our customers and stakeholders, while continuing to deliver a safe, reliable, and sustainable network.

Providing digital self-serve options such as interacting with virtual support agents, or a digital customer portal, will enable quicker response times for customers, while helping us manage the anticipated increase in customer inquiries for connection and decarbonisation.



We will deliver this by:

We have replaced our Customer Relationship Management Platform (CRM) with a new digital platform to incorporate existing processes, new processes, integration with our self-serve functions and integration to our asset, regulatory and control systems.

Extend and develop our self-serve capabilities to offer more services, multiple channels and cater for new customer types.

Improve our self-service quotation process to allow customers enhanced clarity over costs of new connections at point of enquiry without the need to speak to internal SPEN staff.

Creation a new self-service function to facilitate photo and video capture by customers. The images will be held as part of the customer's information pack which will be available to the SPEN teams during design and delivery.

This will deliver benefits such as:

Improved efficiency and quality of service to customers

Ability to adapt our offerings in line with customer preferences

Ability for customers to self-quote

Support the fault identification process leading to quicker resolution times.

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Customer Relationship Manager (CRM)



Driven by our ED2 plan, stakeholder expectations, and technology disruption, we are committed to introducing new digital solutions that help unlock value for our customers. This means looking across our Total Customer journey, and working with our customers to meet their needs. Our Total Customer journey has started with the implementation of a market leading CRM tool, Salesforce, which will enable us to deliver brilliant customer service now and into the future.

This CRM solution will have one single 360° view of the customer – meaning that all details and communication history will be visible against the customer, improving our response times and ability to provide a more tailored customer experience.

Since our previous update we have migrated five customer service processes, including complaints, into Salesforce to achieve our one view of the customer, removing the requirement for multiple systems. Over the next six months we plan on continuing our migration of related and near-obsolete systems to Salesforce, moving our focus to the Connections Transformation and Transmission business systems.

Current Status

1 in 4 customers in the UK are classed as vulnerable and this percentage is only increasing due to Covid and cost of living increases.

Storm response – Ofgem's recommendation of storm stress testing of contact centres and additional support processes for customers (learnings from Storm Arwen).

SPEN is a consistent high performer amongst UK DNO's (BMCS ~9.5/10).

ED2 Draft Determination – SPEN received positive feedback and outcome from Ofgem amongst our peers.

Have started on our journey towards becoming a leading Distribution System Operator



The value that CRM unlocks

Proactive customer engagement, digital shift towards self-serve and omnichannel operations

Dynamic and flexible business operational response to peak/overflow situations like storms, emergencies, major faults

Maintain or improve customer satisfaction, despite the anticipated challenges in ED2 (uptake of low carbon technology connections, flexibility, Net Zero)

Optimise the ED2 budget, making the most value of every £ of spend

Adapt and respond to industry-wide evolution (e.g. open data in utilities, DSO, technology/innovation programmes).



Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
CRM Platform implementation	<ul style="list-style-type: none"> Consolidation of multiple customer service solutions that are currently made up of a suite of disparate systems into one single system to manage all customer interactions. 	<ul style="list-style-type: none"> Five customer service processes migrated into the Salesforce CRM platform to achieve a consolidated one-view of customer information. Improvements made to the online Customer Journey Complaints Processes. 	<ul style="list-style-type: none"> Migration of customer processes relating to General Enquiries and Planned Outages into Salesforce CRM. Decommission obsolete systems no longer required as processes will now be carried out in CRM. 	<ul style="list-style-type: none"> A single view of all customer interaction across SPEN provides insight and quicker resolution paths for live chats or telephony interactions. Increased volume of customer enquiries resolved first time. Reduced volume of enquiries that need more than one person to resolve.
NAVI & LView	<ul style="list-style-type: none"> Creation of a connected network model from our geographical information system (GIS) data to allow flexible analytics to be performed without impacting the daily use or structure of the primary GIS system. 	<ul style="list-style-type: none"> Development of a High Voltage (HV) Earthing Calculator. Produced in-house power analysis tool to assist local authorities with their decarbonisation planning. Commence roll out of LView to SPEN field staff. Deployment of user led enhancements including support room staff messaging capabilities with field staff, enhanced tracing and search features, and voltage profile visuals. 	<ul style="list-style-type: none"> NAVI Power analysis capability development. Upgrade NAVI infrastructure for performance and exporting, and integration with other tools. Commence roll out LView to SPEN field staff. Mobile app deployment. Data Visualisation and Low Voltage (LV) network alarm alerts from temperature and humidity monitors. 	<ul style="list-style-type: none"> Faster network analysis for quicker customer responses on new connection quotes. More accurate and consistent data used for network data analysis. Significant enhancements to network visibility of our LV connectivity model. Faster fault finding and customer restorations, leading to reduced power outages.
ESCOMS Replacement	<ul style="list-style-type: none"> Estates, Consents and Management System, which is used to manage and report on land rights and consents. Needs to be replaced as is approaching technical obsolescence. 	<ul style="list-style-type: none"> Build started, with end-to-end features developed, including user work screens and reporting dashboards. 	<ul style="list-style-type: none"> Develop reporting functionality. Develop designs for integration with mobile platform. Deployment and roll out of ESCOMS. 	<ul style="list-style-type: none"> Centralise land and planning data, improve tracking of land rights and consents, and facilitate enhanced reporting capabilities. Provide greater visibility and clarity to agreements and assets, with integration to our core systems. Avoidance of delays in connection projects.
Graphical Design Tool	<ul style="list-style-type: none"> System to improve and automate parts of the process for creating designs for network development and new connections. The system will have the ability to overlay a customer's proposed development onto our network maps, visible to all stakeholders. 	<ul style="list-style-type: none"> Finalisation of all business requirements identifying functionality the system should have from key internal users. Finalised the requirements that can be achieved in the first deployable tool (Minimum Viable Product). 	<ul style="list-style-type: none"> Commence workshops to understand requirements and define solutions for integration with our corporate asset applications. Creation of development and testing environment. Complete development of minimum viable product. 	<ul style="list-style-type: none"> Creation of designs will be quicker allowing faster response to customer connection applications. Consistency of designs provided to customers regardless of geographical location or which SPEN designer.



Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
Connections Self-Serve Implementation	<ul style="list-style-type: none"> A self-serve facility for customers seeking new or upgraded connections. 	<ul style="list-style-type: none"> Investigated technical solutions to automate the provision of LV and HV budget estimates. Delivered a Proof of Concept online Capacity and Cost estimator tool for trial. 	<ul style="list-style-type: none"> Refinement and launch of LV use case solutions. Gather feedback on the project impact to inform a roadmap of enhancements and new solutions to support the increasing demand for new quotations. 	<ul style="list-style-type: none"> Customers can get cost estimate for a connections job online without the need to contact SPEN to understand if this fits within their budget before formally applying. Ability for customers to see what network capacity is available or where reinforcement would be required to connect to the network.
Connections Customer Online Journey Enhancements	<ul style="list-style-type: none"> Enhance the user experience and web-journey effectiveness for customers progressing Connections. 	<ul style="list-style-type: none"> Reviewed and revised our Connections web-journey. Engaged with Customer Panel to gain an understanding of their experiences and perspectives. Utilised an Agile development team to develop and deploy an improved web-journey experience on our website. 	<ul style="list-style-type: none"> Interrogate web analytics to identify further areas where the user experience would benefit from being enhanced. Continual development of web journey improvements based on customer feedback. 	<ul style="list-style-type: none"> Improved customer application experience with simpler online application process. Tailored online experience depending on the customer type and type of connection being requested.
Connections Fixed Price Quotes	<ul style="list-style-type: none"> Provide a Fixed Price quote offer to customers for small connections work. 	<ul style="list-style-type: none"> Obtained the necessary approvals to initiate an Agile project team to apply the Fixed Price concept to an initial subset of connections jobs. Determined suitable customer question sets and engaged with a software development company who have built an initial prototype for evaluation purposes. 	<ul style="list-style-type: none"> Evaluate and review feedback on the developed prototype and determine the appropriate next steps. 	<ul style="list-style-type: none"> Up front clarity of costs for customers Consistent connection cost provided to customers. Quicker turnaround of connections designs to facility quicker connection installation.
Land Rights Digitisation	<ul style="list-style-type: none"> Scanning and digitalisation of records relating to SAP and Land GIS, to deliver a digital and integrated solution to manage their workflow. 	<ul style="list-style-type: none"> 45,000 documents collected from our depots and sent to our 3rd party supplier to be scanned and digitised. 6,000 documents scanned. 1,000 documents integrated to GIS and SAP systems. 	<ul style="list-style-type: none"> Continued digitisation of the first 250,000 records from the overall 450,000 target. Complete scanning and quality checks of the first 250,000 records. 	<ul style="list-style-type: none"> Quicker turnaround for Land Rights information requests. Creation of consolidated digital document database.
Variations and Refunds Improvements	<ul style="list-style-type: none"> Improve the connections Variations and Refunds process that is used when a design varies from the original quote and costs. 	<ul style="list-style-type: none"> Workshops across all teams involved in these processes to determine all issues with the current systems and ways of working. Identification of best possible solution and how to embed financial control process to remove manual steps. 	<ul style="list-style-type: none"> Development and implementation of first in series of identified improvements. 	<ul style="list-style-type: none"> Streamlined and simpler process on occasions where additional costs are required to complete a connections due to unforeseen circumstances. Quicker turnaround of refunds from when it is identified that a refund is required through to the money being paid into a customer's bank account.

Faster Switching project not included in the above table as this has been de-prioritised until end of Q2 2024.

SPEN Website Refresh project not included in the above table as this has been de-prioritised until later in the RIIO-ED2 programme of work



Optimised Asset and Network Management

Our network will see an unprecedented volume of change so we will need to maintain our continuous supply levels to meet our customers expectations.

To ensure we deliver on this it is crucial that we invest in more efficient approaches to manage our assets, planning, scheduling, and delivering field work and managing our supply chain and logistics. This will support better decision making when planning the work needed on our network, reducing costs for customers, and lowering our carbon footprint.



We will deliver this by:

Use of connected construction technology to digitalise our delivery of capital projects.

Automation, fault location technology, and predictive analytics for outage detection.

Digitalise our inspection regime using aerial LiDAR and drone footage image processing technology.

Development of advanced field technology such as wearables and the use of virtual reality training techniques

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This will deliver benefits such as:

Increased network reliability and reduced outages through proactive management of defects

Accurate, timely, verified, and accessible geospatial data about our network, our assets and their environment underpin much of our ED2 programme

Improved workforce efficiency through access to rich dataset of geospatial data at the point of decision

Efficiencies in the design process will lead to increased capacity to deliver against the needs of our customers as they seek to transition to low carbon transport, heating, and industrial energy supply

Acceleration in our response time to outages.

Mobility and Scheduling Project



Salesforce Field Service will be the main solution used to streamline processes related to field activities for both planned and reactive work in our Operations businesses. Through this initiative we aim to improve Safety, Operational Efficiency, Customer Service and Environmental Performance in SPEN.

To do this we will deliver a two-way link of real time data between our offices and the field, reflecting the progress of work, resulting in increased productivity and employee satisfaction, and allowing better collaboration across our teams. The first step of Salesforce Field Service is to make planning and scheduling

processes more efficient by aligning processes and making use of automations available in Salesforce. To succeed we must deliver a simplistic user experience, the ability to complete over the air updates and enhanced abilities to gather data. With one single system, we will create the possibility to manage field inquiries in the most efficient way.

The project began in September and has seen a team of product owners working alongside our development partner to form the Blueprint for the project, now nearing completion. This will provide a clear view of milestones and deliverables.





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
Building Information Modelling	<ul style="list-style-type: none"> The digital integration of asset design, construction, management and operation of any project. The integration to our portfolio and project management system for construction units, data integration for sustainability, 3D models of SPT assets, digital twin workflows, and supplying digital data to field workers. 	<ul style="list-style-type: none"> Installation of OneClick Lifecycle Assessment and carbon estimation of plant and civil elements. Integration of cost management tool. Completed 3D designing phase. Appointment of dedicated team. Commenced integration workshops. 	<ul style="list-style-type: none"> Prepare and conduct training plan. Procure devices for on-site teams. Finalise software to support scheduling. Prepare action plan for integration with SPEN systems. Explore options for capturing carbon estimation of electrical equipment. 	<ul style="list-style-type: none"> Improved quality across all aspects of the project planning lifecycle from design to delivery. Reduction in time, effort and cost of changes throughout project life cycle resulting in cost efficiency for customers and reduced variation from original designs. Improve project implementation by seamless data sharing with design engineers co-ordinating and making changes within one environment, improving customer satisfaction.
GIS Platform Upgrades	<ul style="list-style-type: none"> Our Geographic Information System (GIS) is an integral system for our asset master data and is used throughout our asset management systems. Investment in the migration of our GIS platform from the current software (due to become obsolete from 2025) to ArcGIS Pro on the Utility Network data model, the upgraded software with enhanced functionality. 	<ul style="list-style-type: none"> LocatorHub: A core part of the SPEN GIS solution providing address and asset searching is being retired in December 2023, a replacement solution, is undergoing final testing for deployment by end of 2023. LiDAR data ingestion implemented ahead of schedule, and has been well received. GeoLocation Tool Strategy defined, integration with What3Words, giving location identification to within three meters is in progress, now moving to build mode. 	<ul style="list-style-type: none"> Natural Capital and Biodiversity layer, with requirements captured and build started. Data migration, Data cleansing, Interface tools and add-in migration will be in progress; an iterative approach will be taken for these. SPT Building Information Modelling (BIM) related integration development. Rising and Lateral Mains (RLM) data load works commencement. 	<ul style="list-style-type: none"> Migration to UN (Utility Network) data model in ArcGIS Pro will enable new capabilities for analysis and manipulation of information as well as for representation (3D and 4D). Improved functionality out of the box in new ArcGIS Pro environment allows for more configuration over customisation of tools – reducing future obsolescence and therefore expenditure. Increased accuracy of the real world location of our assets within our corporate systems improves our ability to effectively manage them.
Mobility and Scheduling	<ul style="list-style-type: none"> Streamline processes related to field activities for planned and reactive work to improve Operational Efficiency, Customer Service and Safety and Environmental Performance. 	<ul style="list-style-type: none"> Integration needs and requirements for field service solution defined. Salesforce Field Service discovery phase commenced. 	<ul style="list-style-type: none"> Select software for integration, data mapping, integration plan, risk assessment, resource allocation, data clean-up, testing, go-live, documenting and reporting. Commence the development of the Agile development programme and deliver the first agreed MVPs. 	<ul style="list-style-type: none"> Faster delivery of work to our field workers, with optimisation based on resource location and expertise. Customers can get better visibility of scheduled work and estimated duration.
SDIF and Field Online	<ul style="list-style-type: none"> The SDIF platform manages large volumes of network monitoring and event data, facilitated by providing standardised interfaces between systems and automating complex sequences of actions to automate business processes. 	<ul style="list-style-type: none"> Enhancements to our Smart Grid Operations solutions and integration with new data sources from LV sensors. Solution development and testing continuing throughout Q3/Q4. 	<ul style="list-style-type: none"> Phased implementations of use cases as prioritised from ongoing investigations. Ingestion of data from LV monitors. Commencement of SDIF infrastructure upgrade and refresh programme. 	<ul style="list-style-type: none"> Improved information on the location of a fault to accelerate restoration. Inclusion of monitoring data, analysis and orchestration of alarms. Enhanced analytics on LV network from data captured by third party LV sensor solutions.



Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
IOT Gateway	<ul style="list-style-type: none"> Build of an IOT (Internet of Things) platform to manage a wider array of sensor types to improve our knowledge of our networks and our assets. 	<ul style="list-style-type: none"> New solution deployed to manage and collect data from sensors across the LV network and cloud based AWS (Amazon Web Service) IOT Platform design completed during Q3 2023. IOT platform commissioned and deployment of first application to collect data and manage LV Monitors. 	<ul style="list-style-type: none"> Design for second application to consolidate data communication via one device at each substation. 	<ul style="list-style-type: none"> Instant awareness of faults on the networks leading to quicker response and resolution times, in some instances predicting a fault before it occurs.
SAP Enhancements	<ul style="list-style-type: none"> Facilitate the realisation of effort/time efficiencies through reduction of manual transactions and human error within our core asset management platform using an automated solution implementation. 	<ul style="list-style-type: none"> Introduction of the Project Dashboards. Continuous improvement programme of SAP enhancements of varying sizes and impact. 	<ul style="list-style-type: none"> Continuous improvement programme of SAP enhancements of varying sizes and impact. 	<ul style="list-style-type: none"> Quicker internal productivity across multiple internal process resulting in quicker processing of customer related tasks. Improved data accuracy – Reduction in system errors and issues.
SPT Asset Risk Management Tool	<ul style="list-style-type: none"> New Tool to enable SPT to allow SPEN to identify potential condition based issues across our asset range and make any required interventions. 	<ul style="list-style-type: none"> Development of core system functionality completed and the system has gone live. Staff training completed. 	<ul style="list-style-type: none"> Development of Reporting requirements. System optimisations following go live. 	<ul style="list-style-type: none"> Increased network reliability and reduced outages through proactive management of defects. Reduction in customers off supply due to faults and increased network resilience against extreme weather events.
Compliance Stores Equipment Register Digitisation	<ul style="list-style-type: none"> Digitalisation of the process for signing out and displaying the status of network test equipment, through a Salesforce application, including an automated alert system advising when maintenance checks are required on the equipment. 	<ul style="list-style-type: none"> Discovery phase complete with all business requirements identified. Requirements prioritisation exercise complete and project split up into multiple phases of deliverable functionality. Build completed and ready to deploy. System and User Acceptance Testing completed. 	<ul style="list-style-type: none"> Finalise schedule for implementation. Training. Go-live. Post Implementation Support. 	<ul style="list-style-type: none"> Ability to track any items through journey from in-stock, item ownership, and return. Health and Safety benefit from ability to track equipment at the click of a button, and Enhanced product recall process.
Condition Based Assessment	<ul style="list-style-type: none"> Alignment of two overhead line inspection and maintenance processes by creating a function to take asset and defect information provided by external contractors and load them into our corporate systems. 	<ul style="list-style-type: none"> Technical build complete, tested and implemented into business as usual operations. Training of new technical processes rolled out to relevant internal staff. 	<ul style="list-style-type: none"> Post Implementation Support. Project close down. 	<ul style="list-style-type: none"> Removal of duplicate visits to SPEN assets on customers land. Greater visibility within corporate systems of potential health and safety issues on the network which can be reacted to and rectified.



Developing Options to Manage Peaks in Load

The electrification of transport and heat will dramatically expand the loading on our network, particularly our 'last mile' low voltage network.

Without this intervention, when customers install Electric Vehicles and heat pumps on network areas without sufficient capacity it will overload the network, leading to power outages, shortening of network asset life, higher overall costs for customers, and possible safety concerns.

To manage this load increase we are using a combination of traditional engineering (business as usual) and new digital solutions. We also manage vast increases in volume and frequency of data from technologies such as remote sensors, IoT devices, wearable technology, and drones. The initiatives within this digital pillar are critical to how SPEN will deliver the capacity that our customers and communities need.

We will deliver this by:

Deployment of advanced digital monitoring and control equipment on our low voltage network including 14,000 monitors.

Deployment of 10 constraint management zones in SPD and 12 in SPM enabled by data and digital solutions.

Innovative technology to enable new choices for our customers 'beyond the meter' to support the low carbon transition.

This will deliver benefits such as:

Increase in network data, allowing us to monitor and make more informed decisions on load management

Improved network asset lifespan, reducing replacement and repair costs

Reduced likelihood of network overloading, making it safer for engineers to complete vital work.

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LV Monitor Rollout

As we consider the volume of uptake of electric vehicles (EVs) and heating systems in the upcoming years (forecasts predict by 2030 between 1.2 and 1.5m EVs and 0.6 to 0.9m heat pumps on our network), amongst other low carbon technologies, and an increasing need for network flexibility and operational improvement, the challenges ahead for our LV network are enormous. Hidden within these challenges though are several transformational opportunities for our business.

With our business and society, we are adapting to our ambitions and government targets to enable the efficient transition to DSO which requires the LV network to be flexible and dynamic with real time data, network visibility and control. To address this and the existing operational challenges, we propose to deploy a significant number of LV Monitors within ED2 regulatory period.

We will install these monitors with a live connection to our internal systems to obtain, manage, and visualise the LV Network data internally. This allows us to combine several datasets into a single platform, including among others: LV Monitoring, Smart Metering, and PowerON (network faults). Each of these will be overlaid on our connectivity model to provide our control rooms and field staff a near real-time consolidated view of the network for improved fault management.

The installation of these monitors has begun with ambitious roll out plans being tracked to ensure we can realise the benefits.





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
LV Monitoring Rollout Programme	<ul style="list-style-type: none"> Installation of over 14,000 LV Monitors across substations to manage and visualise real-time network operating data. 	<ul style="list-style-type: none"> Successful testing and configuring of LV Monitor devices and commenced rollout of LV Monitors. Proprietary solution created for LV monitoring and connection to SPEN systems. 	<ul style="list-style-type: none"> Continued rollout of devices in Q1 2024 on the new IOT solution. Visualisation developed and available within user front end tool LView. 	<ul style="list-style-type: none"> Instant awareness of faults on the networks leading to quicker response and resolution times, in some instances predicting a fault before it occurs. Ability to view and manage peaks in Load.
NCP Rollout Programme	<ul style="list-style-type: none"> The deployment of Network Controllable Point (NCP) devices that monitor the network at scale, in order to improve the network reliability and outages. 	<ul style="list-style-type: none"> Increase in volume of NCPs installed. Established the process to improve the teams installation capabilities. Deployed new tool to identify optimal sites that will increase the network efficiency and resiliency. 	<ul style="list-style-type: none"> Standardisation of the rollout to increase the efficiencies in the process. Increase in the number of technologies used for the communications of the devices. Improve the asset monitoring to increase the device availability. 	<ul style="list-style-type: none"> Significant enhancements to network resiliency and fault resolution resulting in less unplanned power outages. Ability to view and manage peaks in Load.
LV - Smart Meter Automated Fault Prediction	<ul style="list-style-type: none"> Development of Artificial Intelligence tools to identify patterns in Smart Meters fault data to identify cables that have a neutral fault risk. 	<ul style="list-style-type: none"> Digital pilot began to show how Low Voltage data can be used to predict faults. 	<ul style="list-style-type: none"> Development of full solution, integrated with existing SPEN LV systems. 	<ul style="list-style-type: none"> Improved network resilience by intervening ahead of failure, resulting in reduction in customer interruptions.
Smart Metering Data and Analytics	<ul style="list-style-type: none"> Delivery of a new cloud-based solution to manage network event and time series data for analytics activities. Visualisation of data to end users for analysis and decision making. 	<ul style="list-style-type: none"> Development of integrating LV Monitoring data into current systems, with visualisation in LView and PowerBI reporting tool. Initiated upgrade of unified analytics platform. Developed algorithms in analytics platform for additional analysis scenarios. 	<ul style="list-style-type: none"> Begin system replacement tender process. Complete integration for storing and visualising LV Monitor data. Complete migration for unified analytics environment. Develop further use cases within analytics platform. 	<ul style="list-style-type: none"> Facilitation of better reinforcement planning and forecasting to prevent asset failures resulting in power outages. Optimised maintenance planning and historical data used to build predictive fault modelling. Improved visibility to LV network allowing more informed decisions when designing customer connection requests.
Engineering Net Zero (ENZ) Platform	<ul style="list-style-type: none"> Development of a near real-time analytical platform, enabling data-driven visibility, planning and operation of the network which relies on four integrated data sources (network monitoring, smart meters, enhanced forecasting and asset condition). 	<ul style="list-style-type: none"> Updating demand and generation forecasts. Updating key network parameters, including asset utilisation and topology. Comparison of ENZ and NAVI functionalities to facilitate future integration of the two platforms. 	<ul style="list-style-type: none"> Updating ENZ with latest forecasts for customer demand and generation. Planning the inclusion of asset condition information in the ENZ optimisation process. Develop high level design for initial integration of ENZ into wider corporate systems. 	<ul style="list-style-type: none"> More informed network operations and optimised network investment planning to reduce target network reinforcement ahead of time and avoid capacity overloads. Improved customer connections processes. Flexibility tendering will be improved.



Supporting the Development of New Business Models and Markets

Our commitment to reaching Net Zero will require alternatives to traditional working practices, and the development of New Business Models and Markets which will be enabled through digitalisation.

Firstly, digital solutions will be fundamental in our transition to Distribution System Operation (DSO). Digitalisation will enable the functions and activities such as flexibility procurement and Distributed Energy Resources (DER) dispatch. By adopting an open, collaborative

approach, we will harness innovation to lower costs for customers, accelerate the low carbon transition and take steps on our journey towards becoming a DSO. Secondly, it is our vision to embed sustainability into how we operate, ensuring decisions are made with a detailed

consideration of environmental impacts upstream and downstream of our activities

To enhance UK network interoperability, a number of these solutions are in collaboration with other DNOs/DSOs.

We will deliver this by:

Enabling the open sharing of data and information through our newly developed Open Data portal.

Introducing an Active Network Management (ANM) platform, to monitor and allocate power capacity to customers in areas at risk of exceeding network capacity.

Providing stakeholders with a platform to manage flexibility processes from procurement through to settlement.

Development and pilot of methodologies and tools for Biodiversity and Natural Capital assessment, including Carbon Accounting methodologies and tools.

Development of tools for the efficient collection and reporting of waste, carbon and materials from our Supply chain and contractors.

This will deliver benefits such as:

Supporting our customers and stakeholders to develop solutions and innovations through provision of data and information

Enabling customers to connect ahead of conventional reinforcement solutions by unlocking capacity in our network.

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Flexibility Services and Platforms



Since our June 2023 update, we have signed a two-year partnership with Piclo, the leading independent marketplace for flexibility services. Flexibility services allow connected customers to support the management of the electricity grid and receive payment for doing so. The two-year contract will allow us to simplify the procurement journey for Flexibility Service Providers (FSPs), by removing the need to onboard them through multiple different platforms. A strong message from potential providers is that reduced complexity and standardisation would help them to participate. Piclo's new end-to-end service will support these objectives allowing more potential FSPs to participate, ultimately supporting the transition to Net Zero at the lowest overall cost for UK customers.

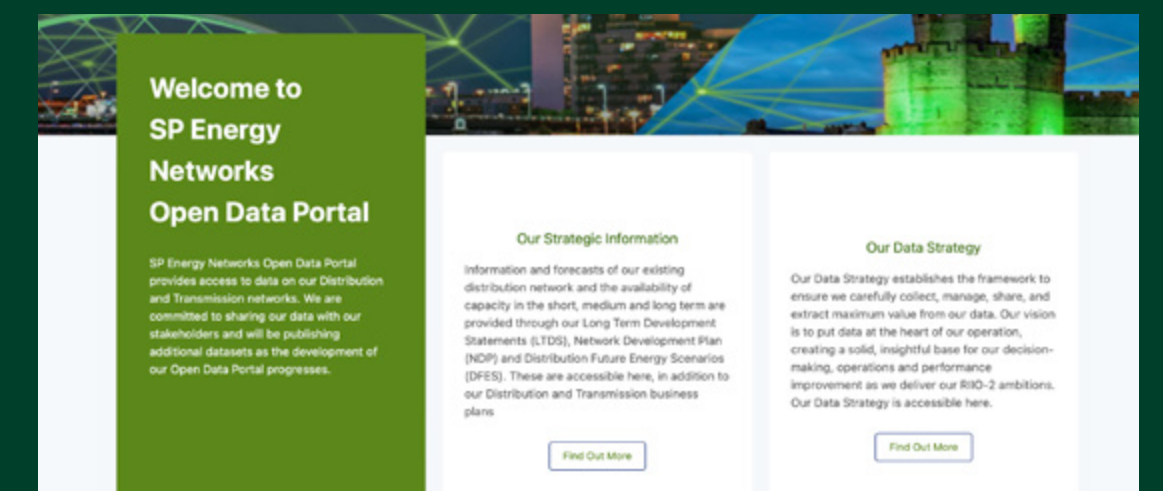
As the first UK DSO to sign up to the expanded end-to-end services on Piclo, the expanded marketplace will enable us to dispatch and settle flexibility services, in addition to using the platform to advertise and procure assets to meet its network needs. This simplifies the process for FSPs when it comes to providing services to SP Energy Networks, enabling us to achieve flexibility at scale. For more information and to view our Flexibility Services Roadmap please [click here](#).

To enable us to efficiently and effectively share our data, we have developed and launched an online "Open Data Portal". This portal can be freely accessed by our customers and stakeholders via our website.

The site enables users to search, view, and export datasets in simple, standardised formats, supporting them in fields such as Academia, Consulting, Business Development, and Innovation. Users can easily search our data catalogue and detailed metadata, as well as independently download, export and consume via an API.

The portal has been developed with our customers and stakeholders, and hosts a wide range of information, including demand and generation for our grid and primary substations; generation connection capacity heat maps; embedded capacity registers; shapefiles of our assets; and secondary network ratings and utilisation.

Work is underway to develop the visualisation capabilities of the Portal, enhancing the experience for users. We have already received positive feedback from stakeholders about the accessibility of our data, and are actively working with them to identify opportunities for improvement and future datasets for publication.





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
Active Network Management Portal Implementation	<ul style="list-style-type: none"> A customer portal giving a view of our distributed control system that continually monitors the limits in a given area of the network and then allocates the maximum amount of capacity to customers in that area. 	<ul style="list-style-type: none"> System requirements fully defined and documented. Approval of funding to commence build of ANM Customer Portal. 	<ul style="list-style-type: none"> Commence design of a secure data platform to receive ANM Data and present the data to our customers in an event-driven fashion via a secure login within our Customer Portal. 	<ul style="list-style-type: none"> Customers able to Self-Serve ANM Data, creating data engagement with customer without requiring additional SPEN resources. Improved Governance, increased data security and compliance with license obligations.
Flexibility Platforms	<ul style="list-style-type: none"> Creation of a single Market Place platform that enables the procurement, dispatch, and settlement of flexibility services. 	<ul style="list-style-type: none"> Finalised 2 year partnership with Piclo, the leading independent marketplace for flexibility services. 	<ul style="list-style-type: none"> Commence development of the roadmap for platform integration to ensure interoperability with internal systems and external stakeholders. 	<ul style="list-style-type: none"> Simpler and quicker procurement process for our Flexibility Service Providers. Single platform registration for customers rather than multiple platform registrations as was the case previously.
Contractor Waste Management Tool	<ul style="list-style-type: none"> Implementation of a tool that allows SPEN to track all waste that is generated by our contractors, the type and quantity of each material, where it is generated and moved for processing and disposal. 	<ul style="list-style-type: none"> Researching the tools available for the efficient collection and reporting of waste, carbon and materials use has been completed. 	<ul style="list-style-type: none"> Technical evaluation of potential tools against SPEN requirements to determine preferred option. Trialling of solutions/ tools to collect and report data. 	<ul style="list-style-type: none"> Understand the fate of waste being produced to inform business decisions to increase reuse and recycling as per our Circular Economy strategy. Inform infrastructure design decisions to minimise greenhouse gas emissions during development.
Biodiversity and Natural Capital	<ul style="list-style-type: none"> Development and pilot of methodologies and tools for delivering Biodiversity and Natural Capital assessment. Creation of a desk based baseline of Natural Capital across our network using GIS capabilities, in collaboration with stakeholders and other DNOs. 	<ul style="list-style-type: none"> Continued development of AECOM Natural Capital tool. Updates to stage optioneering for Biodiversity Net Gain considerations. Continued digitalisation of network land data. 	<ul style="list-style-type: none"> Obtain digitalised SPEN land ownership file for running in tool. Commence sandbox sessions on AECOM Eco Uplift Tool, procurement, and build of Natural Capital Baseline of the Network. 	<ul style="list-style-type: none"> Natural Capital tool and Optioneering tool successfully embedded in routing/ siting decision making processes. Minimisation of impacts on biodiversity from development of network. Enhancement of natural capital across the network where possible.
Carbon Accounting	<ul style="list-style-type: none"> Development of a digital tool to replace manually edited spreadsheets used to gather lifecycle sustainability information from electrical equipment suppliers. 	<ul style="list-style-type: none"> Agreed a solution for the digitalisation of Carbon Product Calculator Tool and selected supplier. 	<ul style="list-style-type: none"> Complete the digitalisation of the Carbon Product Calculator Tool. Development of a digital carbon calculator tool for substation design. 	<ul style="list-style-type: none"> Digital Carbon Product Calculator Tool successfully embedded in tender contracts. Minimise the greenhouse gas (carbon) emissions from the development of infrastructure.

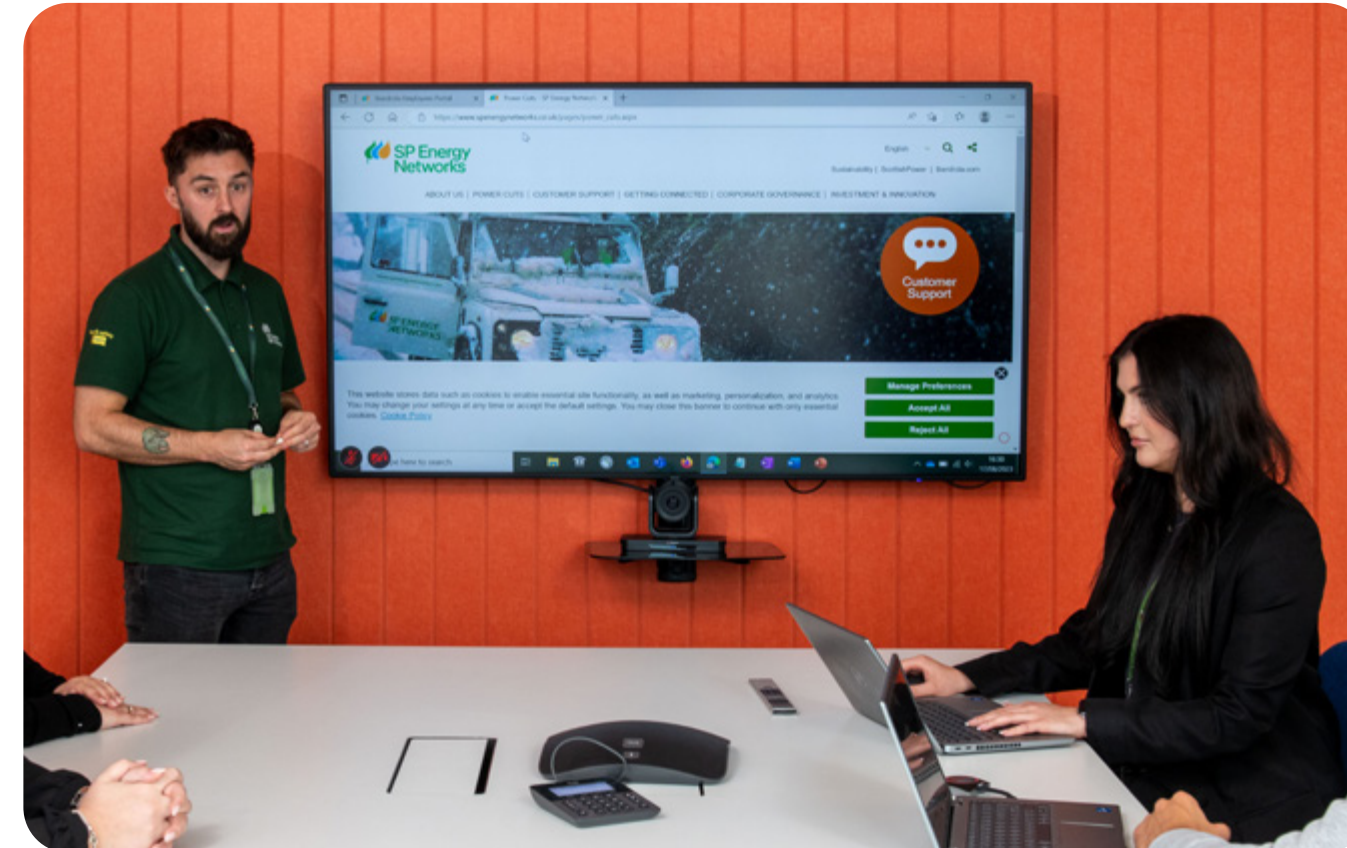


Investing in the Digital Skills of Our People

Investing in our people will enable us to accelerate adoption of digital technology and empower our people to identify new and innovative ways of performing their tasks. We will support our people in this transition by equipping them with the right agile and digital skills

We recognise the value that these skills bring to our customers and provide exciting opportunities for our people to play their part in the creation of a modern digitalised energy system.

We have now started tracking the specific training activities being carried out across each of our key project deliveries to ensure successful adoption of these products, which are detailed in the following pages.



We will deliver this by:

Implementing a cultural change programme so that our people recognise the value data and digital skills can unlock for our customers, stakeholders, and our own organisation

Specialist training delivered by external and internal subject matter experts.

Expanding our graduate programme and recruitment policies to include digital skills.

Using gamification of training and knowledge-based AI assistants to enhance our learning and development programmes.

This will deliver benefits such as:

Expertly skilled staff / More diverse employee skillset

Accelerate the adoption of digital technology in SPEN to allow early delivery of benefits for our customers

Provide crucial skills to adapt to industry change

Embed a culture of continuous learning and development.

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Gamification of Learning (Trailhead)

Gamification of learning is a training approach that uses elements of gaming to create a fun and interactive environment. This method improves engagement, encouraging our teams to train on a wide range of topics.

To foster a culture of professional and personal growth within the Customer Service, Land and Planning and Business Transformation teams, we have created and curated content for a learning and development platform used by over 1,000 members of staff on the Salesforce Trailhead online learning platform.

As a gamified online platform, Trailhead allows our team to skill up by learning skills from Salesforce to crucial business and interpersonal skills. As the team complete modules and projects, they earn points and badges while climbing the Trailblazer ranks, making learning fun along the way.

Our partners have developed bespoke and curated existing modules that reflect the digital skills and knowledge that are crucial to our employees growth and development as we continue on our digitalisation journey. We invited the team to see who could earn the most badges and create friendly competition, sharing modules they found beneficial and build on our collaborative learning and knowledge share.





Initiatives	Summary	Activities planned for the next six months	Deliverables
Salesforce Training	<ul style="list-style-type: none"> We have partnered with Salesforce and Accenture to develop and upskill our pool of Architects, Product Owners, Developers and Administrators. Through instructor led training sessions and SPEN specific learning pathways on their gamified learning platform Trailhead to ensure the workforce has the skills and knowledge required during this transition. 	<ul style="list-style-type: none"> Development of SPEN specific role-based learning pathways for our teams across the business. Instructor led training sessions to ready the team for the transition. A series of Brown Bag events to highlight and introduce key topics and functions related to new system. 	<ul style="list-style-type: none"> Role specific learning pathways to target the key skills and knowledge required. Increased engagement with Gamification of learning. Increase workforce engagement prior to transition.
LView Tool Training	<ul style="list-style-type: none"> The LV Training Tool LView provides a near real-time digital connectivity model of the network, and is used to train the workforce in its functionalities and potential uses. 	<ul style="list-style-type: none"> A pilot has been developed to expand the functionalities, use and knowledge of LV room within SPD and SPM. One Superuser is to be trained per district to help implement the training plan, via instructor led training sessions in all district locations. Update of online learning repository to include guidance notes, troubleshooting, and FAQs. 	<ul style="list-style-type: none"> Increase user engagement and use of LView tool. Designated Superuser within each district to assist in the roll out to users. Training to include specific modules, demos, practices, and quizzes.
PROSCI Practitioner Training	<ul style="list-style-type: none"> To raise awareness of why change is being introduced and to make sure the context is understood in terms of people, processes and systems, a number of our workforce have completed Prosci Practitioner training. This training aligns with our Agile strategy as we implement an Agile form of the Prosci ADKAR model to drive successful change at an individual level. 	<ul style="list-style-type: none"> Participants to embed the proficiencies gained through training to drive change while fostering a change ready culture. Implementation of monthly Change Practitioners Forum, allow for the share of knowledge, best practice and support the development of new practitioners. 	<ul style="list-style-type: none"> Increase understanding and management capabilities related to required changes in the business. Align training with our agile strategy.
Knowledge Transfer Portal	<ul style="list-style-type: none"> A new SPEN specific training platform to improve our training delivery. The Knowledge Transfer Portal has greater flexibility with more options for users depending on learning level or preference. 	<ul style="list-style-type: none"> Development of training material to sit within the portal. Training modules, process and procedural documentation will be aligned to business areas and defined roles. 	<ul style="list-style-type: none"> Communication system where employees can ask questions and receive answers in a quick and agile way. A user-friendly and intuitive platform. Greater flexibility with more options to obtain feedback, evaluations, and reporting.



Initiatives	Summary	Activities planned for the next six months	Deliverables
Trailhead 10-Week Challenge	<ul style="list-style-type: none"> A gamified online platform, Trailhead allows our team to skill up for the future by learning skills from Salesforce to crucial business and interpersonal skills. As the team complete modules and projects, they earn points and badges while climbing the Trailblazer ranks making learning fun along the way. 	<ul style="list-style-type: none"> This incentive was initially on a 10 week basis to introduce Trailhead as a Learning Platform. All employees continue to have access to the learning platform to promote new skills and self-development. 	<ul style="list-style-type: none"> Encourage professional growth. Role specific learning pathways to target the key skills and knowledge required. Gamification of learning.
Cyber Security Awareness	<ul style="list-style-type: none"> Cyber security awareness training is crucial in safeguarding sensitive data and digital assets. By staying informed about best practices and emerging risks, we strengthen our organisations cyber defences. 	<ul style="list-style-type: none"> Cyber security remains a key focus with mandatory training to equip our team with the knowledge and skills to identify and mitigate potential cyber threats. Cyber Security team to host webinars, expanding upon and embed a robust culture of cyber awareness related to potential threats and best practice. 	<ul style="list-style-type: none"> Increase employee awareness of cyber security, and how to identify and mitigate potential threats. Improve business security. Increase knowledge on managing and reporting potential malicious attacks.
Agile Methodologies	<ul style="list-style-type: none"> Adopting Agile methodologies plays a key role in steering our Digital Skills strategy, we have continued to invest in the enhancement of our workforce's proficiency in Agile principles and practices. 	<ul style="list-style-type: none"> Facilitate the seamless integration of agile methodologies within our team, through targeted training and resources. Expert led coaching and mentoring to aid in adoption of ways of working and to promote an agile mindset. Promote a collaborative environment to share knowledge, best practice and lessons learned between different teams. 	<ul style="list-style-type: none"> Increased knowledge and capability to deliver projects in an agile manner with the minimal viable product developed and released as early as possible followed by continuous, iterative improvements. Early realisation of project benefits for customers.
NAMS Training	<ul style="list-style-type: none"> The Network Asset Management Systems (NAMS) are integral systems within SPEN and so is critical the workforce has the training, skills, and knowledge to use these systems effectively. 	<ul style="list-style-type: none"> Knowledge Management Master Plan assessment and creation of To-Be Model covering policies, process, governance, roles, and tools. Refresh plan to update materials and training modules. 	<ul style="list-style-type: none"> Targeted role based training for all New Starts. Updated training for existing staff within SPEN. Continuous training and process updates through BAU.



Improving Mastery of Our Data

Data is an important key enabler of a decarbonised, decentralised, and digitised energy future. It's the tool that will bridge the gap between where we are now versus where we need to be – to achieve Net Zero by 2050.

Data is essential to optimising the value of assets, driving innovation, better understanding risks, and increasing system resilience. As the owner and operator of three licence businesses, data about our assets, our services, and our capabilities, will be key in supporting the transition to Net Zero.

Improving the mastery of our data allows us to quickly, and more effectively, make information available, and improves our ability to manage data security. Sharing our data with external parties will lead to better whole system solutions and new, innovative ways of working.

We will deliver this by:

1 Implementing our Data Governance platform and establishing a SPEN data catalogue, which will support delivery of our Data Governance Framework.

2 Deploying fully integrated analytics capability through Azure and AWS platforms, and realising value add data use cases.

This will deliver benefits such as:

Improvements in data quality, enhancing data sets shared with our stakeholders

Improving our data triage processes, enabling quicker and more secure transfer of data to our stakeholders.

Develop data use cases to support customers in how they access and use our data.



The Informatica Tool

Informatica is a Data Governance platform that enables SPEN to monitor, control and report on our data assets. A core component of the Data Governance platform is its' Data Catalogue; a detailed inventory of all data assets that exist in SPEN, and which enables the data to be categorised according to business rules such as type of data, data ownership and access rights. This inventory of data assets, and associated attributes, is made available to all business users so that they can better understand what data is available and find the most appropriate data for any analytical or business purpose. The Informatica platform also introduces a quality solution, allowing SPEN to define quality measures for our data assets and enabling an assessment to be made as to whether the data is fit for purpose.

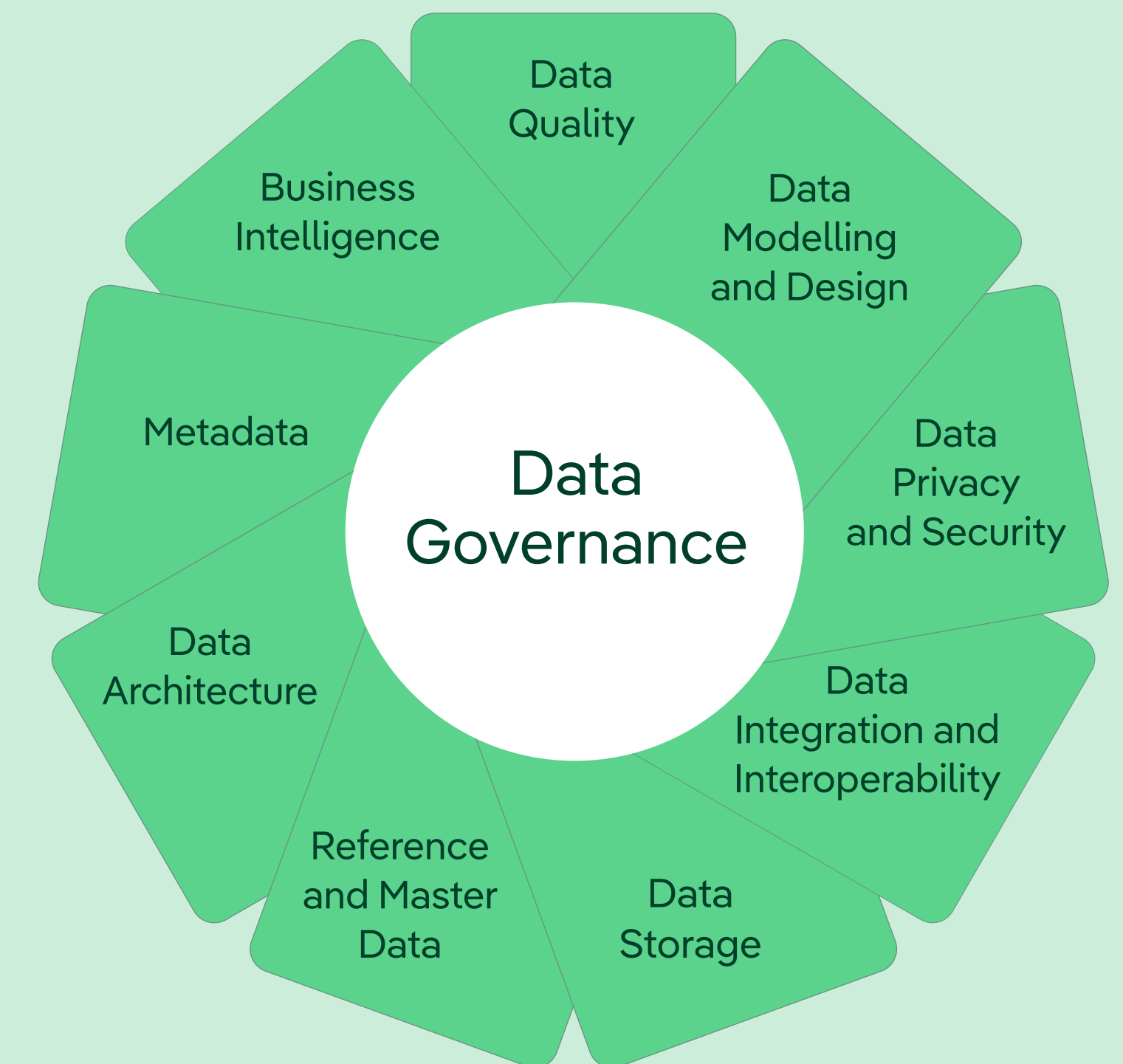
The operating model for Informatica has been defined and the platform will be deployed into SPEN on an incremental basis throughout the RIIO-2 period. This deployment will be on a Data Use Case basis, prioritised through our Data Governance Forum.

Our Data Governance Framework

We have established a dedicated Data Governance and Open Data team within SP Energy Networks. It is their role to ensure that our Data is effectively governed, that a suitable Data Governance framework is in place, and that we are meeting our obligations under Ofgem's Data Best Practice Guidance.

Recent activities include:

- Facilitation of Open Data Requests; over the last year we have successfully facilitated over 200 request for access to our data.
- Transition of our Open Data Portal to be compliant with the Dublin Core Metadata standard, in line with Ofgem's Data Best Practice Guidance.
- Definition of the operating model for deployment of our Data Governance platform in our organisation.





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
Data Governance Platform	<ul style="list-style-type: none"> Implementation of our Data Governance platform will enable us to monitor, control and report on our data assets. The solution includes establishment of a data catalogue, a detailed inventory of all our data assets which enhances data access to our business users. 	<ul style="list-style-type: none"> Deployment of our platform in a development environment, and establishment of the business operating framework. On track to complete our initial “Proof of Concept” for our first “data use case” by year-end 2023. 	<ul style="list-style-type: none"> Our Data Governance platform will be deployed into SPEN on an incremental basis, aligned with prioritised “data use cases” that have been identified by our Data Governance forum. 	<ul style="list-style-type: none"> Establishment of data accountabilities in SPEN. Development of a SPEN data catalogue – providing a detailed inventory of all data assets and their associated metadata. Data quality metrics in place.
Prosper Replacement	<ul style="list-style-type: none"> Power Systems performance reporting system used to produce information on customer interruptions and equipment failures, and to report on customer statistics for customer service and equipment reliability. 	<ul style="list-style-type: none"> Completion of the Migration of database along with conversion of scripts from PLSQL to TSQL. Front End Replacement of IBM Blue underway with Python Programming. Synapse access and configuration. Ingestion pipeline, Curated pipeline, Report pipeline has been completed. 	<ul style="list-style-type: none"> Go Live and implementation of a fully developed solution. Realisation of initiative benefits. Completion of system testing and training. 	<ul style="list-style-type: none"> Increased security and data encryption for protection of data. Improved audit capabilities. Prosper and Transactional Data response time improvements, measured against expected time.
SMART Replacement	<ul style="list-style-type: none"> Smart Meter Systems analyse all network data, including smart meter and substation monitoring data for a better understanding of network operations and conditions. 	<ul style="list-style-type: none"> Target semantic data model completed (3NF, Semantic, 40+ metrics). SPD Voltages and Alarms and Extremes Reports completed with 22 metric. 	<ul style="list-style-type: none"> Go Live and implementation of a fully developed solution. Realisation of initiative benefits. Completion of system testing and training. 	<ul style="list-style-type: none"> Increased security and data encryption for protection of data. Increased data encryption. Improved audit and reporting capabilities. Transactional Data response time improvements, measured against expected time.
ENSAPMIG	<ul style="list-style-type: none"> This project is the first data use case to utilise Azure Synapse Data platform to migrate ENSAPMIG, an obsolete oracle database used for operational & regulatory reporting. 	<ul style="list-style-type: none"> Business requirements established. Developed platform logic and algorithm. Incremental testing solution as it is developed. 	<ul style="list-style-type: none"> Completion of development phase, testing and production deployment. Parallel runs of the two systems to compare data before commissioning of legacy database. 	<ul style="list-style-type: none"> As more data use cases are implemented on the platform, this will increase accessibility to data and potentially produce instances where this data can be accessible externally via our Open Data Platform.

Setting Ourselves Up For Success

In early 2023, our Business Transformation Directorate completed a re-structure that has transformed the team and the way we work. Our headcount increased from 50 to 88, introducing additional capacity and new roles into the team. This enhances our capabilities to better serve our business, and deliver outcomes for our customers and stakeholders.

Our Digitalisation Strategy, drives and shapes our programme. Our delivery programme has been segmented into Value Streams, where each Value Stream is responsible for the design, development and delivery of projects aligned to a specific theme. We supplement our Value Streams with supply chain partners to increase capacity, capability, and technical expertise to ensure we have the right mix of skills and support to deliver on our digital plan commitments. Our Value Streams have clear accountability for end-to-end products and systems lifecycle, providing application support for systems within their remit.

Our Delivery Model is underpinned by two central support functions, providing a central pool of expertise to make sure the programme delivers quality, outcomes and value. One of the key principles of our delivery model is to ensure the right delivery method for each initiative with the

right mix of internal and external resources and skill sets. This hybrid resourcing model utilises a combination of external partners and SPEN staff, allowing us to develop our people and build more skills and capability internally, driving cost and efficiency.

Functionality and technology change impacts our internal stakeholders, and to enable and manage that change, we use the Prosci ADKAR Change Management methodology. Operating a 'hub and spoke' model, the Transformation Team are viewed as experts in Change Management and provide coaching and upskilling to our network of Change Practitioners across our organisation. A skilled network of people who understand the importance of managing the people side of change ensures that new technology and digital solutions are fully adopted, and that solutions deliver value for our Customers and Stakeholders.



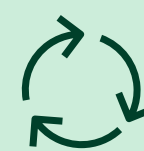
Architecture and Strategy Team

Our Architecture and Strategy Team own our Digitalisation Strategy and Roadmap and are responsible for developing and driving our digital strategy. They provide architectural oversight and test solutions for compliance with Digital and Data roadmaps. They are responsible for all our Digital submissions and publications which provide updates on our Digital Strategy and delivery progress. The number of Architects in this team has grown to ensure we have expertise available across our growing suite of projects, and we have recently appointed two Cyber Security roles, ensuring that all of our solutions are 'secure by design'.



Centre of Excellence

Our Centre of Excellence is our delivery engine. We have created a delivery model which is efficient, and ensures clear accountability for delivering outcomes for our customers and stakeholders. This structure strengthens our delivery capability, capacity, agility and provides us with resilience to grow in the future as and when we need to. We have introduced three new roles, Training Manager, Testing Manager and Contracts Manager, and have recruited experienced professionals to provide their domain expertise and stewardship into all our project delivery teams.



Transformation Team

Our Transformation Team ensure change is managed holistically across our programme, and that changes for people, processes, and systems are fully impact assessed, communicated, and trained. A team of Sigma Black Belts are deployed on key Strategic Transformation projects, using their expertise to enable transformation. Our PMO branch of this team underpin the entire Business Transformation Directorate to make sure the programme is well defined, managed, delivers planned outcomes and committed value for our Customers and Stakeholders. This team have dedicated Communication experts who support effective communication as solutions and new technology is implemented.

