

SP Energy Networks

# Digitalisation Action Plan

June 2024

Transmission Update





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This Digitalisation Action Plan update reflects on the progress we have made on our digitalisation and data initiatives for our transmission business since December 2023 and shares our plans for the next six months as we progress the delivery of our RIIO-T2 business plan.

This is our first Transmission Digitalisation Action Plan update. Previous documents covered both our Transmission and Distribution licenses, recognising the increasing significance and unique aspects of Digitalisation for SPT.

It also reflects the updates since our [Transmission Digital Strategy](#) update recently published in March 2024 which can be found on our website and provides an update on our plans to develop our use of digital tools to support our transmission business.

We have made the decision to separate our digitalisation strategies and action plans for our distribution and transmission businesses to enable clearer identification of activities associated with the different needs and regulatory drivers of these businesses.

Our Transmission Digitalisation Strategy focuses on enabling the efficient management and operation of the transmission network to deliver value and benefit for our customers and stakeholders. The drive to Net Zero has led to increasing demand for connections and load on our network and we are developing our digital platforms to support this in alignment with our strategic goals, which are outlined within this document.

During the RIIO-T2 period my Business Transformation function was created and is now fully resourced with our delivery plan well underway. Reflecting on the progress made throughout the RIIO-T2 period so far, we have set the foundations for evolving our transmission business into a digital age with improved systems to support the critical business processes being carried out.

Over the last 6 months we have implemented a number of key strategic digital solutions including:

- Launching our brand new Salesforce Customer Relationship Management (CRM) platform which will enhance our customer connections programme.
- Continuing the steady implementation of our Building Information Management (BIM) methodology, working closely with our supply chain.

In parallel with this, we are creating our RIIO-T3 business plan including the development of a Digitalisation Strategy for SPT. There are a number of key areas for Digitalisation that we believe will be key features of our RIIO-T3 plan. These include:

- Customer and Stakeholder Solutions
- Optimised Asset Operation
- Project Design & Delivery
- A Continued Focus on Data

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. We welcome all feedback on our plan and you can contact us with your views and submit information requests via the [website](#).

**Lynda Ward**  
Business Transformation Director





## 6 Month Highlights

We continue to make good progress delivering our ambitious RII0-T2 programme of work and have seen successes outlined below in the last six months.

### £1.6m

#### Q1/Q2 2024 Investment

Since January 2024 we have invested £1.6m in our digital initiatives to align with our data and digitalisation strategies and we are on track to deliver against our RII0-T2 commitments.

### 100%

#### 2024 Projects Planned and Authorised

We will invest £2m on digital solutions in 2024 and in the last 6 months we have planned and authorised 100% 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 SPEN 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.

### 16

#### 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.

### 6 BIM Pilots

#### Piloting the BIM framework across six projects

Successfully delivered 1 pilot project with 5 underway to test the BIM framework across our project lifecycle. Pilots will inform how our BAU Processes need to transform to adopt and embed BIM.

### 30+

#### Digital Initiatives Scoped as part of our RII0-T3 Business Plan

In preparation for our T3 submission, we have identified more than 30 digital initiatives that will form our digital strategy as part of the forthcoming T3 submission to Ofgem in December 2024.

### 30M+

#### Rows of Data Published in Open Data Portal

Open Data Portal is hosting over 30 million rows of SPEN data, all openly available and with detailed descriptions in place.

### c.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.

# Stakeholder Engagement

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

## SPT Connections Summit

Our SP Transmission team hosts their bi-annual Connections Summit to address key customer challenges within our licence area. Most recently held in May 2024, we invite along customers who are looking to connect, have connected to our Transmission network or who have contracted with us.

During the event, we provide updates on the network and key reinforcement works, as well as encouraging customer feedback on the day and in the future. Our most recent event focused on the upcoming Connections Reform. The event not only informs customers about the connection processes but is also a great opportunity for direct interaction with a range of our teams across the business as well as the ESO, Ofgem and DESNZ. At the event, we provided an update on our Quality of Connections score from 2023/2024 which has increased in comparison to 2022/2023.

### Key customer feedback contained:

#### People

Customers enjoyed speaking directly with our engineers at the pre-application stage.

Customers welcomed the increased of engagement with us throughout the application process.

#### Wait Times

Our pre-application meeting times have dropped from 20 weeks to 8 weeks, so we have seen positive feedback around this.

Customers happier to wait to speak with us directly rather than have regional webinars.

#### Connection Dates

Customers feel there is a change between what is offered as indicative connection dates in the pre-application meeting in comparison to what is in their connection offers.

SPT have improved wording following this feedback to inform customers of the volume of applications coming through the system meaning timeframes can be subject to change.

#### Disconnect

Customers ask that we continue to work together with ESO on policy updates to benefit the industry.

Customers have asked we work on improvements in communication across both organisations.

## External Accreditation – AccountAbility

To ensure our stakeholder engagement continues to be fit for purpose, we enlist external accreditors AccountAbility to provide an independent annual audit of our strategy, governance and processes.

AccountAbility’s AA1000 Stakeholder Engagement Standard (2015) is founded on the principles of: Inclusivity, Materiality and Responsiveness. It is a generally applicable, open-source framework for assessing, designing, implementing and communicating an integrated approach to stakeholder engagement. The HealthCheck from AccountAbility is a robust and comprehensive assurance and accreditation programme.

### Organisations are assessed against each of the six core pillars within the AA1000SES:

- A: Commitment and Integration
- B: Purpose, Scope and Stakeholders
- C: Engagement Planning
- D: Engagement Preparation
- E: Engagement Implementation
- F: Review and Improve

SPEN excels at tailoring its engagement methods to ensure inclusivity and maximise reach. This is evident in its diverse communication channels and data-driven approach.

AccountAbility Scorecard, 2024

## AccountAbility HealthCheck Progress

We are pleased to have once again improved our score in 2024. With a total score of 91%, SPEN continues to be placed within the Advanced stage of the AccountAbility Stakeholder Engagement Maturity Ladder.

When we consider each pillar individually, our scoring is now in the Advanced stage across all six pillars, A to F – a first since we began undertaking these audits seven years ago, recognising improvements made. Looking ahead, we remain fully committed to a continual cycle of reviewing and improving our engagement practices. With recommendations from the AccountAbility Healthcheck, we are developing a programme of improvement, working together with our stakeholders to deliver meaningful engagement.

Advanced (81-100%)

Accomplished (61-80%)

Committed (41-60%)

Evolving (21-40%)

Foundational (0-20%)

89%

Health check rating achieved in 2023

91%

Health check rating achieved in 2024



## Stakeholder Priorities Survey

In March 2024, we invited all stakeholders to take part in an open survey, covering a number of important business areas including Priorities, Community Benefits, Engagement, and Data & Digitalisation.

For Data & Digitalisation, we tested the use of website services, satisfaction levels, and our Digitalisation Action Plans. The feedback we received from that has been used to shape our ongoing plans, supporting current initiatives or encouraging further exploration. Some examples are shown here:



### Stakeholder Feedback

A number of stakeholders referenced Open Data, requesting “As much open data as possible” and noting that “Open Data is the way to go”.

### Our Response

Our Open Data Portal is live and continually being developed – we are actively building on this and adding more data as we progress.

### Stakeholder Feedback

Connections queues was a focus for many stakeholders, who want “Queue transparency” and “details of Connections queue”

### Our Response

We’re actively looking at improvements across queue management and visibility of available capacity and constraints to give customers better up-front information. This has already started with the introduction of the SPT heatmaps which will continue to be developed and enhanced throughout T3.

### Stakeholder Feedback

Numerous stakeholders expressed frustration with the SPEN website’s chatbot function.

### Our Response

We are working on a full website refresh which will look into all improvements that can be made to the customer online experience. We are aware of previous customer feedback regarding the chatbot so this will be incorporated into the review.

We are currently expanding our Web & Application team, which will enhance SPEN Transformation’s capability to update the website dynamically.

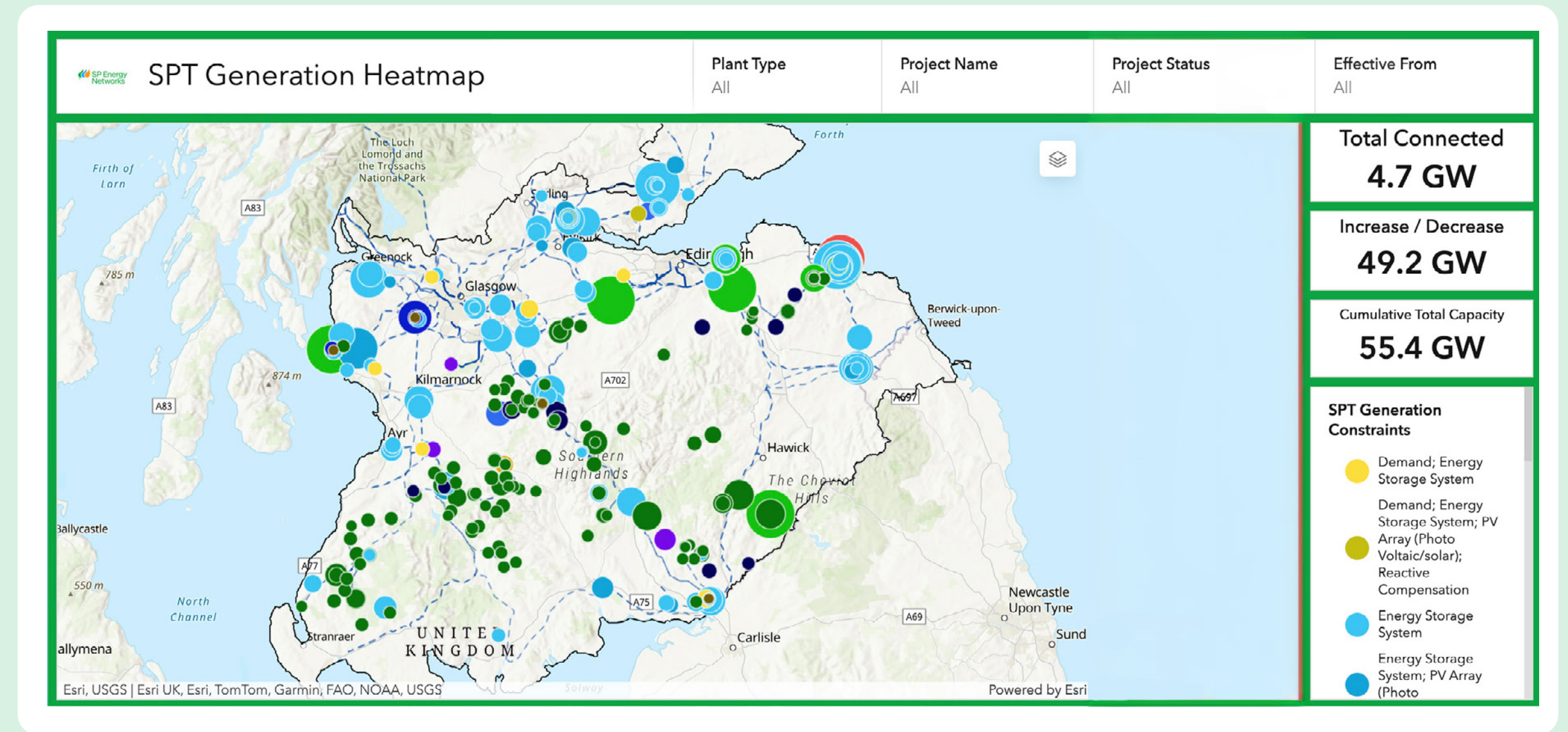
## SPT Heatmaps

In 2023 we recognised following stakeholder feedback that we need to make our data more available and accessible through system visualisations, the first phase was achieved last year; building on this success the team are now working on a new phase which will provide supplementary information including substation thermal rating, enriching the data layers with voltage information, and including regional filters – this work will conclude in 2024.

The aim was to contextualise the volumes of generation capacity and their associated project status in the same view as the SPT network.

This was launched in June 2023 and demonstrated at our SPT Connections Summit. Feedback was positive, and we are now in our second development phase where additional functionality will be added, including:

- Improving the data and information displayed to show the connection between projects and the respective point of connection.
- Incorporating information on the distribution embedded capacity export.
- Improving clarity on line voltage colour coding.
- Displaying the thermal rating of substations and their respective available capacity.
- Providing regional information to improve understanding of saturation on parts of our network.





# Our RIIO-T2 Strategic Goals

As described in our recent [Transmission Strategy update](#) in March this year ScottishPower Transmission (SPT) is a wholly owned subsidiary of SP Energy Networks, responsible for the transmission of electricity in central and southern Scotland.

We take electricity generated from power stations, wind farms, and various other utilities and transport it through our vast transmission network, consisting of over 3,700 kilometres of overhead lines and over 600 kilometres of underground cables. We have over 150 substations and in excess of 100 grid supply points in our network where we take the high voltage supply and reduce it to the low voltage needed for use in the home.

This is our first Transmission Digitalisation Action Plan update, previous documents covered both our transmission and distribution licences, recognising the increasing significance and unique aspects of Digitalisation for SPT.

This document builds on our RIIO-T2 NonOperational IT and Telecoms Business Plan, reflecting changes since its publication in 2020. It also reflects the updates since our previous SPEN Digitalisation Strategy documents which can be found on our [website](#) and provides an update on our plans to develop our use of digital tools to support our transmission business.

Our SPT Digitalisation Strategy focuses on enabling efficient management and operation of the transmission network to deliver value and benefit for our customers and stakeholders. The drive to Net Zero has led to increasing demand for connections and load on our network and we are developing our digital platforms to support this in alignment with our strategic goals, which are:

## Our RIIO-T2 Strategic Goals

### A sustainable Net Zero future



We will take the lead to build a healthier, more accessible energy model – one which leaves the carbon economy behind. We will meet carbon targets, consumers and network users’ low-carbon ambitions, and make a large, proactive contribution towards Net Zero.

### Increase efficiency through constant innovation



We will continue to improve our performance through a continual cycle of innovation. With smarter solutions, we can do more with less – deploying new technology, processes, and ways to share data. Innovation will help us deliver uninterrupted supply, faster connections, and meet the ambitions of consumers, network users and wider stakeholders.

### Adapt our world-class, resilient network

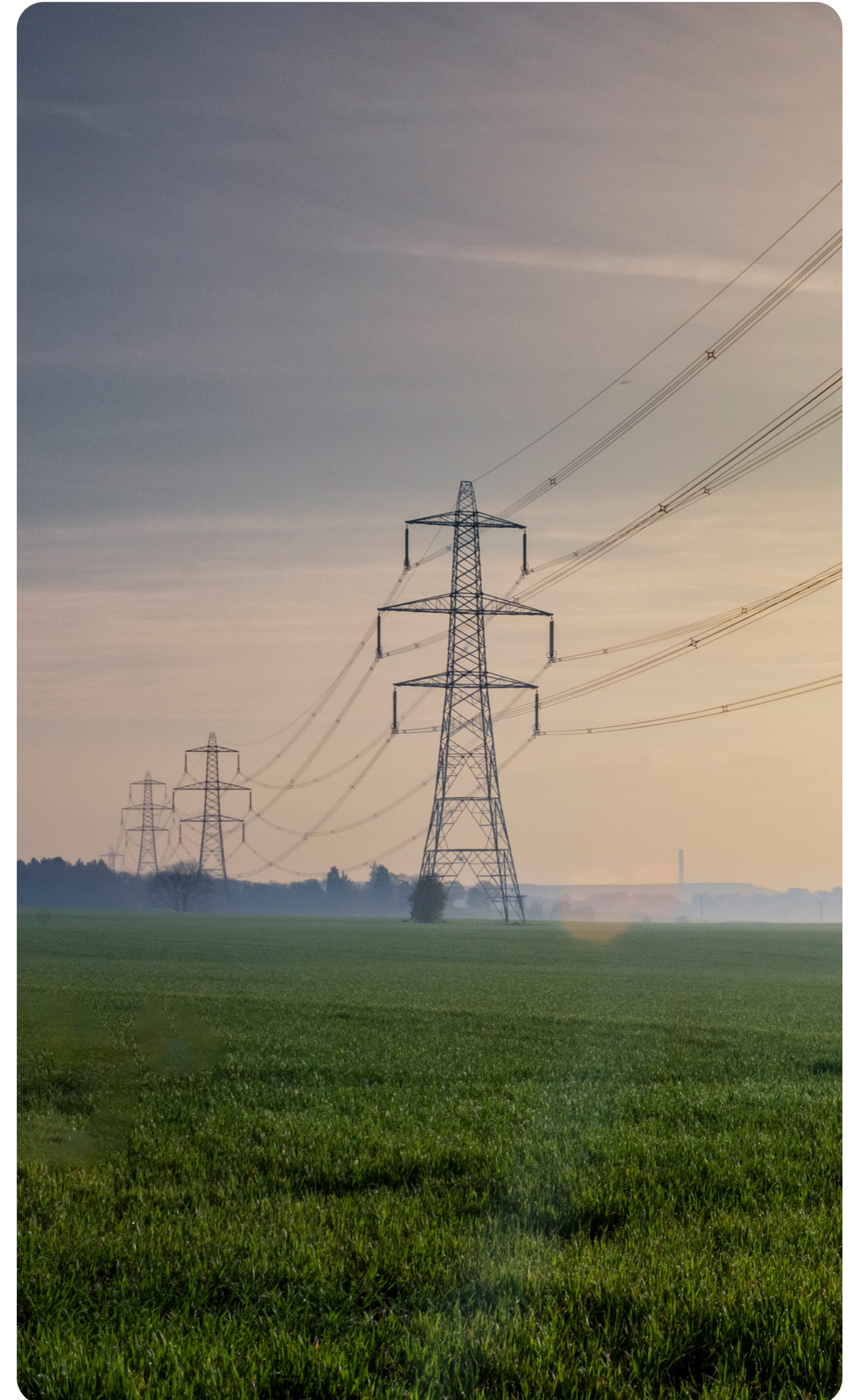


This is a critical time for networks. Demand is changing, generation is evolving, and new threats are emerging. We will adapt our world-class network to meet these challenges, including extreme weather, cyber security, and black start events – delivering ever higher performance for consumers, network users and wider stakeholders.

### Keeping network users & consumers at the heart of our decisions



We will listen and learn even more from our stakeholders. This will allow us to continue to improve lives, create jobs, and protect vulnerable customers. In everything we do, we aim to do more.





# Digital Pillars

As described in our recent [Transmission Strategy update](#) in March this year, our Digitalisation Strategy is aligned with our RIIO-T2 strategic goals and provides a number of key capabilities that underpin their delivery. We have summarised our strategy against 4 pillars:

### Customer and Stakeholder Solutions:

Implementing and upgrading our existing customer service applications, including the Customer Relationship Management (CRM) platform, and our Open Data Portal where we publish data for consumption by external stakeholders.

### Technology Enablers:

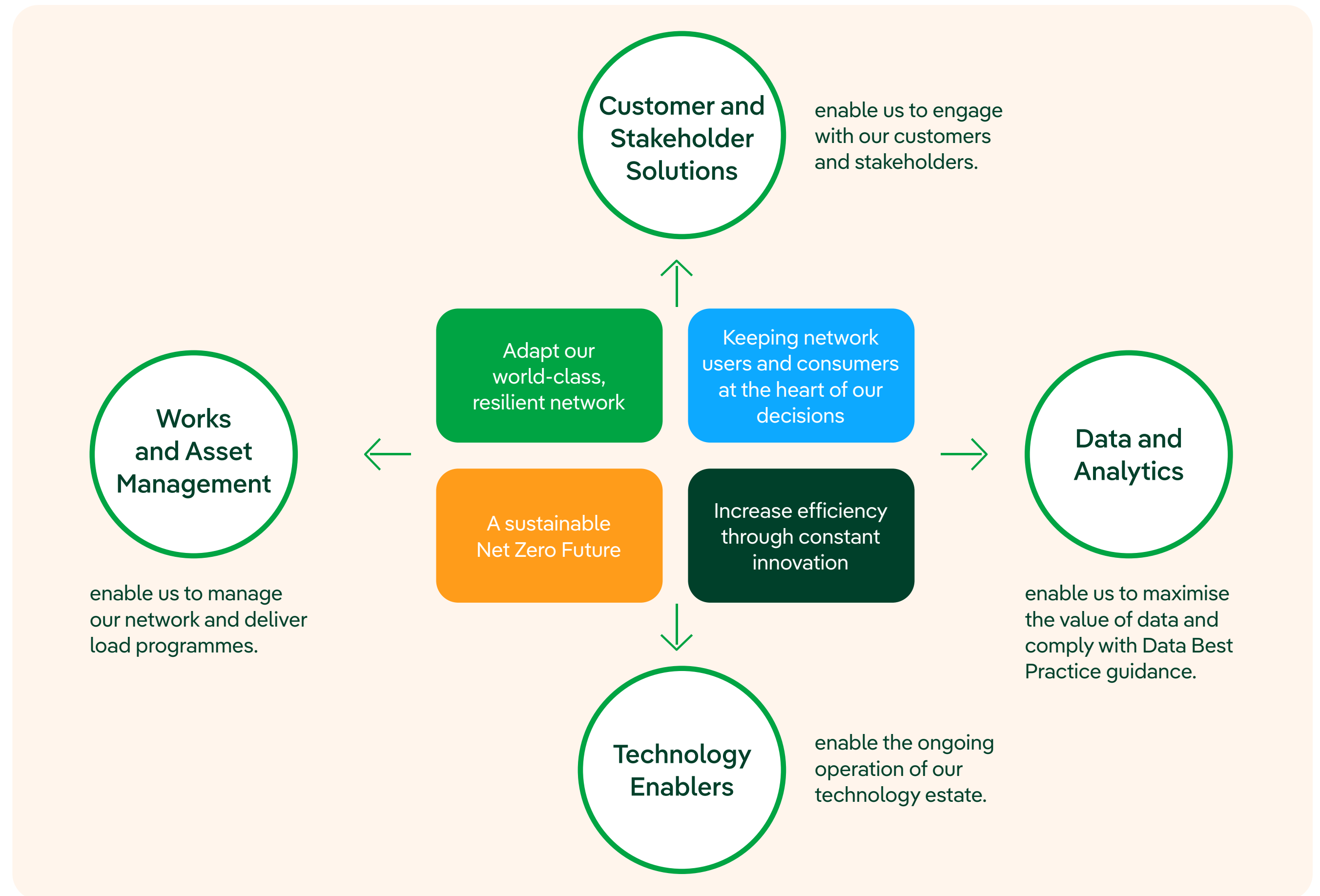
We continue to invest in our platforms to support the operation of the business and the initiatives shown here bring new technical capabilities which will enable future development of solutions.

### Works and Asset Management:

Our business manages and maintains a large and complex set of assets. Our Building Information Model (BIM), mobile field workforce solution, and environmental systems are designed to support the management of these assets.

### Data and Analytics:

Data is at the heart of our digitalisation programme. Without well governed data, our technology solutions will fail. We have a suite of initiatives that enable us to manage and extract the maximum value from data.

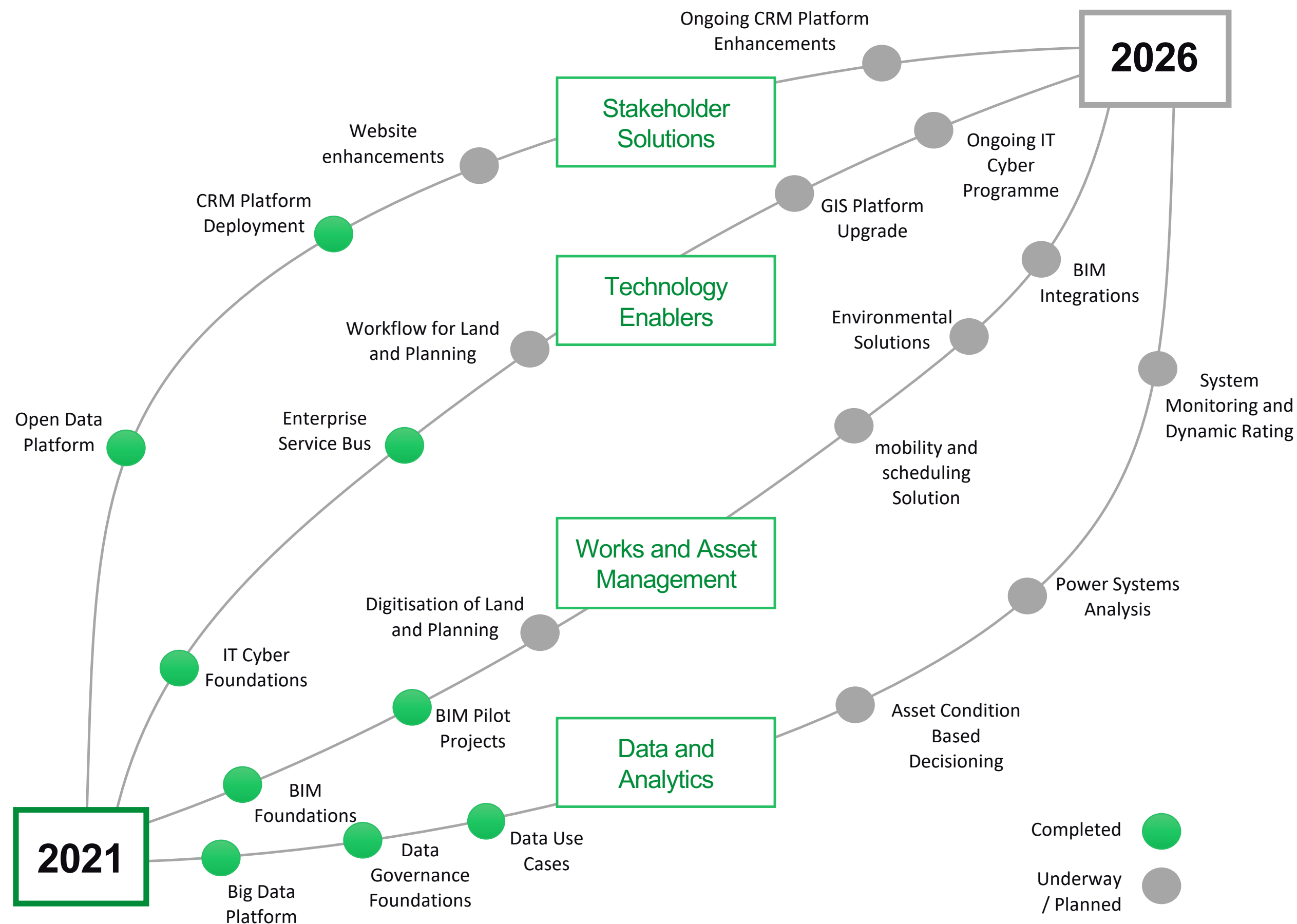






# Our Digital Initiatives and Roadmap

As described in our recent [Transmission Strategy update](#) in March this year, the diagram below provides an overview of our digital solutions that are part of our RIIO-T2 Digitalisation Strategy. A number of these have been fully delivered and the remainder are on track for delivery as per our roadmap. These are shown against our 4 digital pillars.



## Data strategy

Our strategy on Data has evolved over the last few years as we have anticipated and planned for the growing needs of our stakeholders, our customers and our workforce, and aligned ourselves with Ofgem’s and the wider industry’s thinking with regards to Data Governance and Data Best Practice. In light of this, we are now updating our Data Strategy, published alongside our RIIO-ED2 Business Plan, to make it SPEN wide. This strategy sets out our vision to place data, and information, at the core of our operations and to establish the framework, policies, processes and skills to ensure that we manage Data in the same way that we manage our physical assets.

Below is an update on our key 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, with recruitment campaigns ongoing, and we are developing our capability model to ensure high quality and high value project deliveries.

### Data Governance

To be able to have trust in the quality and integrity of our data, we must treat our data as an asset – this is enabled through the establishment of Data Governance. As part of this, we are developing a suite of policies that will standardise how we govern data and enable us to evaluate compliance. We are also deploying our Data Governance platform Informatica, building up a catalogue of SPEN data and capturing detailed metadata descriptions.

### Data as an Asset and Service

We are committed to sharing data with our Customers and Stakeholders on a “presumed open” basis. We have developed a comprehensive Data Triage framework, which aligns with the guidance in Ofgem’s Data Best Practice, ENA’s Data Triage Playbook and the NPSA’s Triage Process Guidance. In response to industry direction from DESNZ, we recently reassess all our datasets published openly – concluding no change and satisfying ourselves that our Data Triage is secure by design.

## Data and Analytics Capability Model

Purpose and Strategy

Operating Model and People

Data and Technology Capabilities

Policies and Standards

Service Design and Operations

Quality Assurance

Value and Cost Management



## Our RIIO-T2 Digital Strategy Goal Alignment

Digital Strategy	Strategic Goal
Development of digital platforms to facilitate improved interactions with users (internal and external), enabling improved capture, recording, analysis, and reporting of data.	
Consolidation of IT solutions around key asset management platforms together with increased and enhanced data capture across a wider base of business operations enabling more information to be used in business decisions.	
Extension of IT platforms to capture more data (e.g. geospatial, time series, additional measurement points, video) on SPT assets using IoT devices, edge computing and social media to enable more informed decision making.	
Introduction of robotic process automation to facilitate the rapid processing of larger data volumes.	
Exposing more information closer to the point of consumption through the widespread adoption of mobile platforms, the development of focused applications, deployment of edge computing solutions and technologies such as virtual and augmented reality.	
Adoption of cloud-based solutions where these provide the greatest opportunity for business and technology effectiveness and efficiency.	
Implementation of BIM Level 2 compliant solutions including full 3D modelling of assets and the establishment of the Common Data Environment for collaboration.	

Digital Strategy	Strategic Goal
Development of analytical solutions to enable automated processing of larger data volumes to provide insights into SPT's operation at a level currently not possible.	
The implementation of a data exchange layer using enterprise service bus technologies will facilitate the further adoption of process automation through different aspects of SPT's operation.	
Improved condition assessment of assets based on broader and deeper data sets to enable better decisions on the operation, maintenance and replacement/upgrading of assets.	
The integration with additional monitoring points on the network to enable system monitoring and dynamic rating calculations to be performed. Solutions will be developed that will facilitate the capture of the real-time information for use in determining optimal network operation.	
Consideration of the impact of the transition to Net Zero on the data modelling or asset operation of management data.	
Introduction of machine learning and artificial intelligence solutions to provide new insights and decision making.	



A sustainable Net Zero future



Increase efficiency through constant innovation



Adapt our world-class, resilient network



Keeping network users & consumers at the heart of our decisions



# 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 strategic 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.



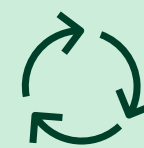
### Architecture and Strategy Team

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, whilst we continue to align our team with SPENs Cyber function to ensure solutions are secure by design.



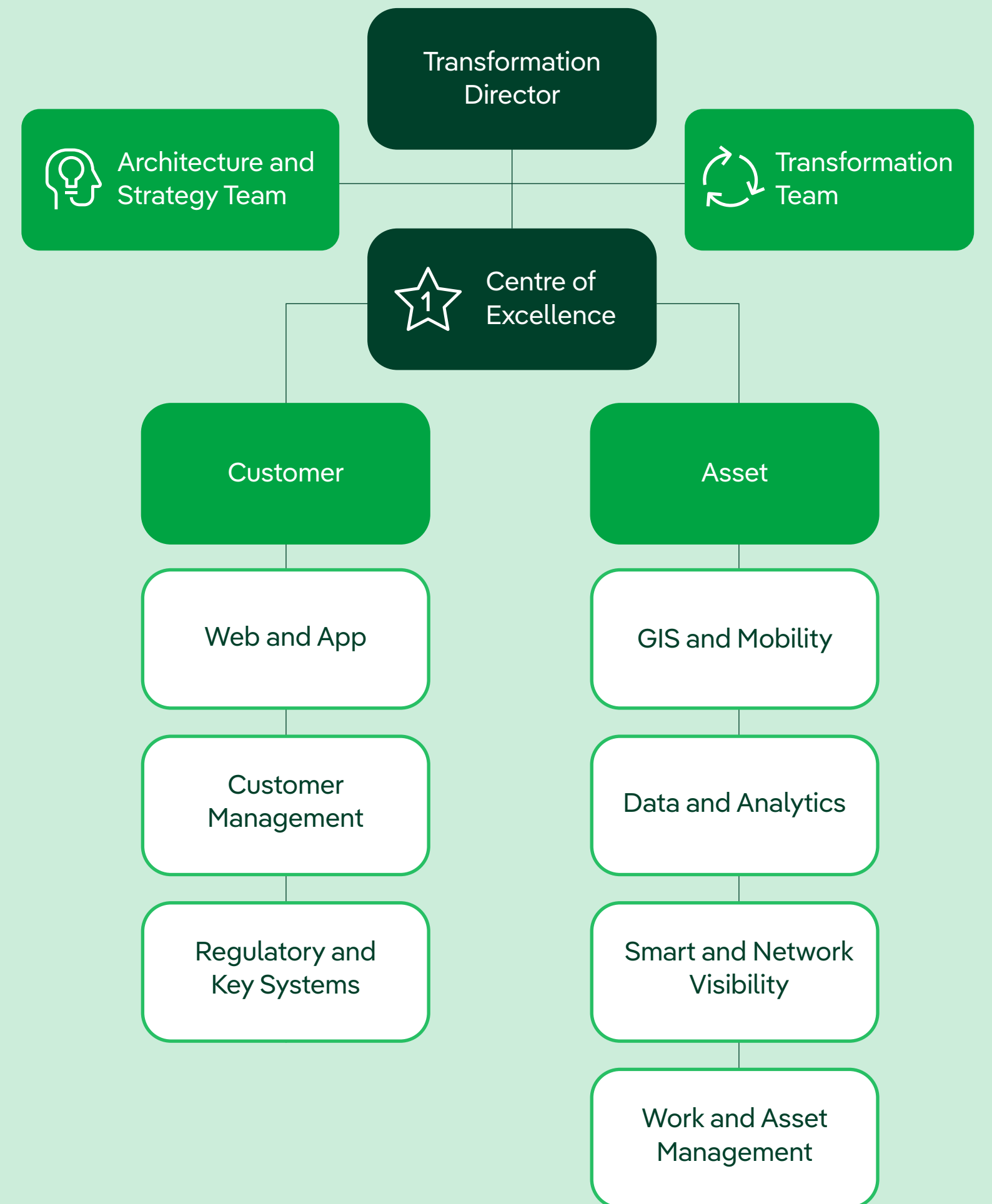
### Centre of Excellence

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. Our team of experienced technology delivery professionals 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.





## Digital Action Plan Project Updates

Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
<b>Asset Condition Based Decision Support</b>	<ul style="list-style-type: none"> <li>We're introducing a new tool that uses smart sensors to keep a real-time check on our assets. This tool will help us understand the health of our assets better, allowing us to make smarter decisions about their maintenance. We're also working on a small-scale project to show how this tool can add value to our operations.</li> </ul>	<ul style="list-style-type: none"> <li>The implementation of the transmission Network Asset Risk Metric (NARM) solution has been completed, providing this platform to perform asset health and criticality calculations.</li> </ul>	<ul style="list-style-type: none"> <li>Continuing to enhance the way we transfer data to better monitor our assets.</li> <li>Connecting our current platform with Azure, a cloud-based service, to help us analyse our data more effectively.</li> </ul>	<ul style="list-style-type: none"> <li>Facilitation of improved data analytics and assessment of datasets across an integrated system.</li> <li>Analysis of data trends to allow for asset deterioration rates to be reviewed for asset intervention decision making.</li> <li>Improve network resilience resulting in a reduction of customers off supply due to unexpected faults or extreme weather events.</li> </ul>
<b>Big Data Platform</b>	<ul style="list-style-type: none"> <li>Our Big Data Initiative will see the consolidation of SPT's core asset systems onto a single platform, including the implementation of the Esri ArcGIS Utility Network framework to enable full 3D modelling of the network, and the integration with OSIsoft Pi for key asset information and asset video data capture. SPT has three existing asset and business information systems (GIS, SAP &amp; e-Terra) which are synchronised by nightly batch updates, plus an SAP Business Warehouse reporting universe that is populated nightly. With this initiative we aim to improve the currently limited integration with real-time data.</li> </ul>	<ul style="list-style-type: none"> <li>Our Azure Synapse platform has been adopted and asset data is being synchronised to the platform for regulatory reporting (RRP and NARMS). As well as the migration of the data processes, the associated master data is being integrated into a common data model which will underpin future requirements, to enable connectivity with multiple datasets.</li> </ul>	<ul style="list-style-type: none"> <li>Develop further SPT reporting use cases with disparate datasets to further strengthen the data held in Azure.</li> <li>Scope and develop the data model required to support automated creation of SPT heatmap datasets.</li> <li>Scope integration of PI data for analysis of real-time data.</li> </ul>	<ul style="list-style-type: none"> <li>Development of a data catalogue providing a detailed inventory of all data assets and associated metadata.</li> <li>Integration with real-time systems to improve data quality, enabling us to make more informed decisions.</li> </ul>





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
<b>Building Information Modelling</b>	<ul style="list-style-type: none"> <li>The digital integration of asset design, construction, management and operation of any project.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Analysis of electrical equipment in OneClick LCA (Carbon estimation – 6D).</li> <li>Finalised software to support 4D scheduling including Autodesk and Navisworks.</li> <li>Completed mapping of SAP PPM with Revit Models.</li> </ul>	<ul style="list-style-type: none"> <li>Successful Implementation of Change Plan: The change plan will be prepared and implemented, leading to improved processes and systems within the organisation.</li> <li>Enhanced On-site Operations with New Devices: Procuring devices for on-site teams will enhance their efficiency and productivity.</li> <li>Improved Financial Management with Finalised Cost Management Tool: Finalising the Cost Management tool will improve financial management and budgeting processes.</li> </ul>	<ul style="list-style-type: none"> <li>Improved quality across all aspects of the project planning lifecycle from design to delivery.</li> <li>Reduction in time, effort and cost of changes throughout project life cycle resulting in cost efficiency for customers and reduced variation from original designs.</li> <li>Improve project implementation by seamless data sharing with design engineers co-ordinating and making changes within one environment, improving customer satisfaction.</li> </ul>
<b>Power System Analysis Software</b>	<ul style="list-style-type: none"> <li>This initiative covers the adoption of new Power Analysis tool capabilities to enhance functionality and facilitate analysis of new network challenges. At the start of the T2 period DigSILENT PowerFactory was used to undertake network analysis of the transmission network. Further investment in modelling tools is expected to meet the needs of the changing transmission network.</li> </ul>	<ul style="list-style-type: none"> <li>Conceptual approach has been approved. Work underway to develop high level design and costing based on a solution developed by Iberdrola Innovation Middle East for harmonic impedance loci.</li> </ul>	<ul style="list-style-type: none"> <li>Complete high level design and gain approval through appropriate forums.</li> </ul>	<ul style="list-style-type: none"> <li>Increase understanding of potential impacts on the network due to changes in connected generation and load.</li> <li>Upgraded Power System Analysis Software will improve overall Whole System Design.</li> </ul>
<b>System Monitoring &amp; Dynamic Rating</b>	<ul style="list-style-type: none"> <li>System monitoring and dynamic rating involves the capture and analysis of near real-time operational information on SPT field assets to enable more informed operational decisions about the network. Additionally, the capability to further analyse our asset and system data will aid design of efficient and strategic risk mitigation. Current system analysis is undertaken retrospectively using fixed data recorders collected for fault investigations and network planning.</li> </ul>	<ul style="list-style-type: none"> <li>This project is not started yet and has a planned delivery for the period 2025/26. Internal discussions have taken place to enable high level understanding of the potential scope and boundaries of the initiative for budget planning purposes.</li> </ul>	<ul style="list-style-type: none"> <li>Submission of 2025 budget including this initiative.</li> <li>Finalise scope and systems architecture, ready to kick off implementation activities in early 2025.</li> </ul>	<ul style="list-style-type: none"> <li>Allows analysis of assets to optimise their usage and to reduce the volume of potential risks.</li> <li>Improved network asset lifespan, reducing replacement and repair costs.</li> </ul>





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
<b>Technology Enabler: Cyber</b>	<ul style="list-style-type: none"> <li>The continued investment in cyber security as part of our risk-based approach, underpinning our digital platforms and contributing to the continued operation of a secure and resilient transmission network.</li> </ul>	<ul style="list-style-type: none"> <li>Our cyber delivery programme is ongoing as part of our risk-based approach to managing cyber security risks. Our IT cyber re-opener was approved and we are delivering against a series of Price Control Deliverables as determined by Ofgem.</li> </ul>	<ul style="list-style-type: none"> <li>Continue delivery of our IT cyber programme.</li> </ul>	<ul style="list-style-type: none"> <li>Continued management and mitigation of cyber risks.</li> <li>Provision of scalable and automated solutions to deliver efficiencies.</li> <li>Maintaining technical/software currency of our estate through upgraded products/platforms.</li> </ul>
<b>ESCOMS Replacement*</b>	<ul style="list-style-type: none"> <li>Estates, Consents and Management System, which is used to manage and report on land rights and consents.</li> <li>Needs to be replaced as is approaching technical obsolescence.</li> </ul>	<ul style="list-style-type: none"> <li>New system built in Salesforce and delivered to ~150 users in the Land and Planning department, along with ~300 users in the wider SPEN business who require access to raise and monitor jobs.</li> </ul>	<ul style="list-style-type: none"> <li>Enable mobile functionality and roll out for use in the field.</li> <li>Enhanced integration with the GIS system.</li> </ul>	<ul style="list-style-type: none"> <li>Improved ways of working, with significant levels of automation increasing efficiency and ability to prioritise jobs and manage teams and workflows with measured effectiveness.</li> <li>Centralised, secure and fully supported solution that allows for GDPR transparency, improved data management and enhanced reporting capabilities.</li> </ul>
<b>Technology Enabler: GIS Platform Upgrade</b>	<ul style="list-style-type: none"> <li>Our Geographic Information System (GIS) is an integral system for our asset master data and is used throughout our asset management systems.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Data Model including Data migration, Data cleansing commenced, due for completion July 2024.</li> <li>3rd party development partner mobilised to complete redevelopment of 29 interfaces, additional Web Applications and SP Tools. Agile approach adopted to run this activity in parallel to Data Modelling.</li> <li>GeoLocation Tool Strategy defined, integration with What3Words, giving location identification to within three meters is in progress, now moving to build mode.</li> </ul>	<ul style="list-style-type: none"> <li>Progress Data Modelling and cleansing element to ensure our data is accurate, consistent, and can be used for analysis and decision making.</li> <li>Complete interface and integration development and testing for connectivity to all relevant systems including SAP.</li> <li>Integrate SAP with our the key systems to help streamline business processes and improve operational efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>Increased accuracy of the real world location of our assets within our corporate systems improves our ability to effectively manage them.</li> </ul>

\*ESCOMS wasn't part of our latest strategy, however the benefits to our business and customers were significant, therefore this work was brought into scope for 2024





Initiatives	Summary	Progress in the last six months	Activities planned for the next six months	Measures of Success / Customer Benefit
<b>CRM Platform Implementation</b>	<ul style="list-style-type: none"> <li>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 and provide a 360 degree view of the customer.</li> </ul>	<ul style="list-style-type: none"> <li>Transmissions Go-Live successfully completed.</li> <li>Knowledge functionality in Salesforce has gone live and this will give our staff access real time information to enhance the customer experience.</li> <li>On-going Application and Maintenance releases to continually enhance processes in the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Migration of survey functionality to Salesforce.</li> <li>Continue to work through smaller enhancements based on current priorities.</li> <li>Decommission obsolete systems no longer required as processes will now be carried out in CRM.</li> </ul>	<ul style="list-style-type: none"> <li>A single view of all customer interaction across SPEN provides insight and quicker resolution paths for live chats or telephony interactions.</li> <li>Increased volume of customer enquiries resolved first time.</li> <li>Reduced volume of enquiries that need more than one person to resolve.</li> </ul>
<b>Biodiversity &amp; Natural Capital</b>	<ul style="list-style-type: none"> <li>Development and pilot of methodologies and tools for delivering Biodiversity and Natural Capital assessment.</li> <li>Creation of a desk based baseline of Natural Capital across our network using GIS capabilities, in collaboration with stakeholders and other DNOs.</li> </ul>	<ul style="list-style-type: none"> <li>Continued development of AECOM Natural Capital tool.</li> <li>Sandbox test of tool carried out but glitches identified.</li> <li>Updates to stage optioneering for Biodiversity Net Gain considerations.</li> <li>Continued work to find solution to digitalisation of network land data.</li> <li>Quote obtained from AECOM for running of tool by consultants to generate baseline.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce sites needing digitised for input to tool.</li> <li>Obtain digitalised SPEN land ownership file for running in tool.</li> <li>Commence sandbox sessions on AECOM Eco Uplift Tool, procurement, and build of Natural Capital Baseline of the Network.</li> </ul>	<ul style="list-style-type: none"> <li>Natural Capital tool and Optioneering tool successfully embedded in routing/siting decision making processes.</li> <li>Minimisation of impacts on biodiversity from development of network.</li> <li>Enhancement of natural capital across the network where possible.</li> </ul>
<b>Carbon Accounting</b>	<ul style="list-style-type: none"> <li>Development of a digital tool to replace manually edited spreadsheets used to gather lifecycle sustainability information from electrical equipment suppliers.</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Product Calculator Tool development launched in May 2024.</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholder engagement (internal and external) and change management process (internal) to ensure the tool is used.</li> </ul>	<ul style="list-style-type: none"> <li>Digital Carbon Product Calculator Tool successfully embedded in tender contracts.</li> <li>Minimise the greenhouse gas (carbon) emissions from the development of infrastructure.</li> </ul>
<b>Land Rights Digitisation</b>	<ul style="list-style-type: none"> <li>Scanning and digitisation of records relating to SAP and Land GIS, to deliver a digital and integrated solution to manage their workflow.</li> </ul>	<ul style="list-style-type: none"> <li>Collected 96% of SPM site documentation and Scanned 126k documents of which we've digitised 121k (as of end May).</li> </ul>	<ul style="list-style-type: none"> <li>Continued scanning and digitisation records to reach overall 450,000 target.</li> </ul>	<ul style="list-style-type: none"> <li>Quicker turnaround for Land Rights information requests.</li> <li>Creation of consolidated digital document database.</li> </ul>



