

# Our Digitalisation Strategy

Stakeholder update March 2026

To enable the digital delivery of a sustainable, secure and customer-centred gas network, leveraging data, innovation and automation to enhance safety, drive operational excellence, and support the transition to a low-carbon energy future

**Cadent**

Your Gas Network

# Welcome to our Digitalisation Strategy

Stakeholder update March 2026

**We are committed to providing a safe and resilient low-cost gas network.**

We recognise the growing role of Data and Digitalisation in shaping our ambitions and commitments to our customers and stakeholders. This strategy demonstrates our plans to leverage digitalisation to maintain our investments in the gas network, reduce emissions of harmful greenhouse gases, expand the quality experience we provide for our customers and innovate to reduce our costs, delivering efficiencies through digitalising our ways of working.



## Embracing digitalisation

Digitalisation is part of everything we do at Cadent, helping us shape the future of the energy sector. Our Digitalisation Strategy is an enabler to deliver for our Customers, Colleagues and Communities. We would welcome your feedback, so together we can shape the future of our industry.

*I'm delighted to share our latest Digitalisation Strategy with you. It sets out our digital ambition for the RII0-3 period and the key investments we propose to accelerate our transition into a more data-driven, digitally enabled organisation. It highlights how we are embedding a digital mindset to deliver greater value for our stakeholders and help shape the future of the energy sector*

**Steve Fraser**  
Chief Executive Officer



## Embedding digital thinking

Our Digitalisation Strategy forms part of how we drive efficiencies; serving our stakeholders, engaging organisations we collaborate with, engaging our communities, running a safe and resilient network, digitalising the way we work and helping accelerate the journey towards net zero.

*I'm pleased to ensure that our Digitalisation Strategy is embedded in our business, driving better outcomes for our customers, partners, community and wider industry.*

**Howard Forster**  
Chief Operating Officer



## Evolving digital Products and Services

This Strategy is driven by a diverse and skilled workforce and key partners who collaborate to design and deliver products and services that enable our staff, address stakeholders' needs and support communities. We are expanding our digital capabilities and maturing our Data Products to provide more open and accessible insights and contribute to achieving the net zero goal.

# Content

## Our Digitalisation Strategy

### 1. Cadent Today



We explain **who Cadent are** and share **our purpose and vision**.

### 2. Our Commitments



We share **our commitments** and our **view on the future of the energy sector**.

### 3. Delivering for our Stakeholders



We explore the **needs of our customers, colleagues and communities** and the role that digitalisation plays in making our organisation more relevant to them.

### 4. Our Digitalisation Roadmap



We explain our **digitalisation framework** and the outcomes our key **digitalisation investments** will deliver over the next regulatory period.

### 5. Open to You



We explain how our stakeholders can contact us and **share feedback and ideas** to evolve our strategy, as we continue our digitalisation journey.

# 1

## Cadent Today

# Cadent Today

## Transporting critical energy for the UK

**We are, by some way, the largest gas distribution company in the UK, delivering gas to c.11m homes, business and 40,000 industrial customers. We feed 188 power stations and connect 45 biomethane production plants and 14 compressed natural gas offtake sites.**

In doing this we are responsible for maintaining our network, ensuring that it operates safely and reliably for those who rely on it. We also help homes, businesses and renewable gas suppliers connect to our network.

Collectively our networks carry almost as much energy as the entire UK electricity network does today and includes the three largest cities of London, Birmingham and Manchester. Our networks have very different characteristics, however, given the diverse regions they cover.

Our North West network is unique in that 40% of the gas is used for industry. In contrast, our North London network is dominated by a metropolitan landscape of high rise and multi-occupancy buildings with a more transient customer base.

Our West Midlands network covers major urban and industrial areas including Birmingham. The Eastern network is more complex and spans the urban areas of the East Midlands, the rural and coastal areas of East Anglia and South Yorkshire and the borders with London.

**Cadent**  
Your Gas Network



# 2

## Our Outcomes & Commitments

# Delivering our Future Outcomes

We submitted our 2026 – 2031 business plan to Ofgem in 2024 and through rounds of determination by the regulator we are now prepared to deliver our secured investments through RIIO-3.

These outcomes have been the driving force behind the creation of this strategy and our RIIO-3 submission. They are woven into our delivery plans, guiding the journey we are now embarking on. As we move into RIIO-3, we will build boldly on the strong foundations laid through our achievements in RIIO-2, carrying forward our momentum, our ambition, and our commitment to delivering lasting impact.

The four outcomes are presented below:



**Safe, Secure and Resilient Supplies**

To maintain investment in the gas network to ensure it continues to deliver world class safety, reliability and resilience.



**Infrastructure Fit for a Low-Cost Transition to net zero**

To drive down methane leakage from our pipes – we will reduce emissions of harmful greenhouse gases by rolling out state-of-the-art-technology we have invested in through innovation in RIIO-2.



**High Quality Service**

To drive a quality experience for all customers and to support customers in vulnerable situations by implementing and expending the sector-leading initiative we have developed over the past five years.



**System Efficiency and Long-Term Value for Money**

To continue to innovate to reduce our costs, continually striving to be efficient in order to keep our component of the customer gas bill as low as possible but also ensuring that the plan we put forward is investible, which is driven by the rate of return Ofgem sets and the overall incentive framework.

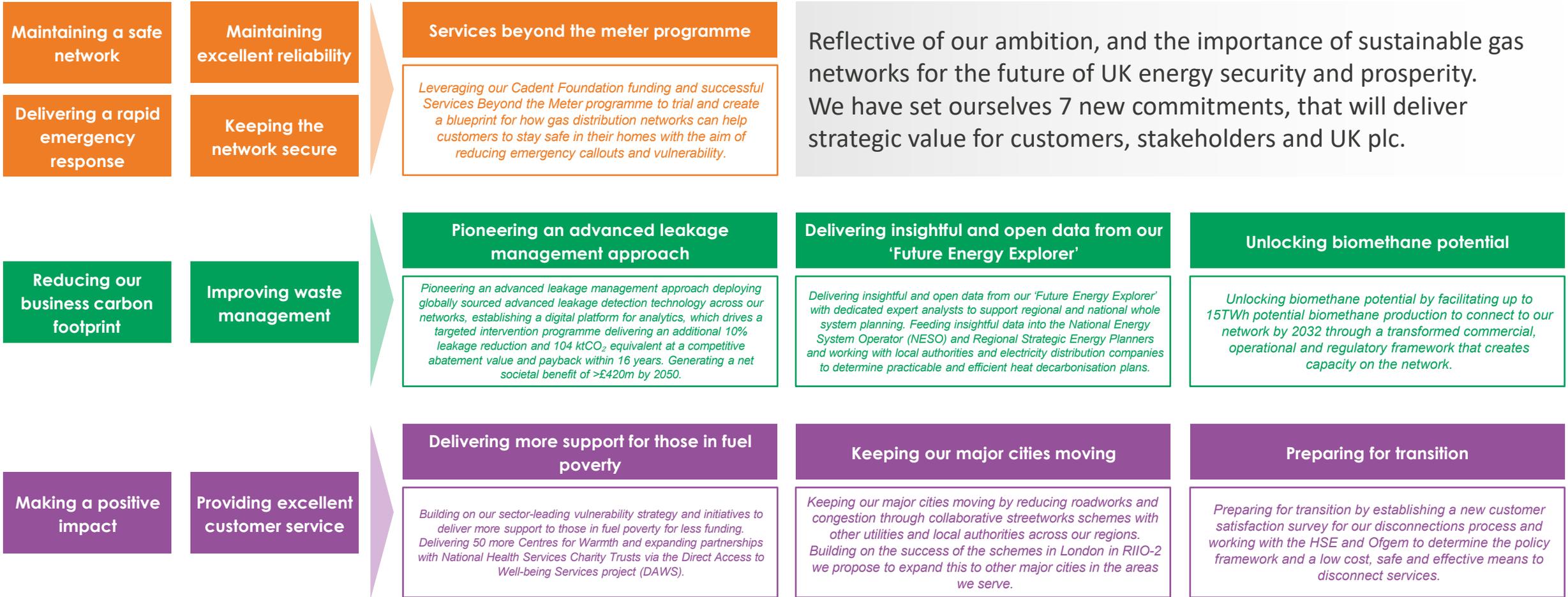
# Our RIIO-3 Commitments

**Our 2026-2031 business plan has 12 clear commitments and throughout RIIO-3 we will continue to deliver against our commitments to ensure continued customer value.**

<p><b>Maintaining a safe network</b></p>	<p><b>Maintaining excellent reliability</b></p>	<p><b>Delivering a rapid emergency response</b></p>	<p><b>Keeping the network secure</b></p>
<p><i>Replacing over 7,799km of iron pipes with plastic ones to keep customers safe.</i></p> <p><i>83% of the remaining mains replacement programme</i></p>	<p><i>99% network reliability through smart asset management and seven targeted major programmes.</i></p> <p><i>Only 1 in 3 customers will experience an unplanned gas interruption in their lifetime.</i></p>	<p><i>Network emergency calls answered within 30 seconds (&gt;90%) and the highest priority emergencies attended within an hour (&gt;97%)</i></p>	<p><i>Targeted operational resilience plans to managed evolving cyber, physical and climate change threats</i></p>
<p><b>Reducing our business carbon footprint</b></p>	<p><b>Improving waste management</b></p>	<p><b>Making a positive impact</b></p>	<p><b>Providing excellent customer service</b></p>
<p><i>Using science-based targets to deliver a 13%+ reduction from further decarbonising our vehicle fleet, property and energy usage</i></p>	<p><i>Reducing our environmental impact with a 2% year-on-year reduction in waste to landfill and a range of other commitments</i></p>	<p><i>Offering every single household which is vulnerable as a result of a temporary gas supply outage a tailored package of personalised welfare (estimated 165,000)</i></p>	<p><i>Maintaining upper-quartile customer satisfaction levels on emergency and repair, planned and connection services and complaint handling</i></p>
<p><b>Continuing to drive efficiency</b></p>	<p><b>Driving innovation</b></p>	<p><b>Leveraging digital and data best practice</b></p>	<p><b>Building workforce and supply chain resilience</b></p>
<p><i>Building on £625m of efficiency gains over RIIO-2. Continuing to set Ofgem's efficiency benchmark for the sector with c.£200m of further ongoing efficiency savings</i></p>	<p><i>Strategy aligned to the four key customer outcomes and a deployment framework focusing on green operations, a smart network and a connected workplace</i></p>	<p><i>Support the creation of a Data Sharing Infrastructure (DSI) and development of an open data portal as well as making performance reporting more efficient</i></p>	<p><i>Building capability, tackling skills gaps, driving efficiency through competition, collaboration and innovation, and driving workforce equity, diversity and inclusion</i></p>

# Our RII0-3 Commitments

We will also be including seven new commitments for RII0-3 which go above and beyond business as usual and, we believe, will set new industry standards. Digitalisation will play a key role across these commitments.



# Our Vision of the Future Energy System

## The four pillars of a future energy system

The future of the energy system is being shaped through ongoing, meaningful engagement with our stakeholders. As the journey toward net zero accelerates, the conversation around the role of our gas distribution network continues to deepen and evolve, opening new possibilities for how we contribute to a cleaner, more resilient energy future.

### 1 Our Stakeholder Ecosystem

- **Active participation with DSI** as part of our digital and strategic planning journey.
- **Collaborative ecosystem** involving DESNZ, Ofgem, and NESO, setting the overall direction, expectations, and pace for the sector.
- **Accelerating decarbonisation is reshaping digital needs**, driving new requirements across our services regardless of the net-zero pathway taken.

### 2 The Journey to net zero

- **Active participation in Regional Energy Strategic Planning (RESP)** to shape future whole-system regional plans.
- **Low-carbon gases, biomethane and hydrogen, are essential** components of future energy mixes across emerging scenarios.
- **Strong, diverse partnerships** continue to fuel innovation, particularly in reducing greenhouse gas emissions.

### 1 Our Stakeholder Ecosystem

*A quality experience for all our Customers and Stakeholders*

#### Our Customers

Domestic Customer

Customers in Vulnerable Situations

Business Customers

Low Carbon Connecting Parties

#### Our Community

Safeguarding Organisations

Government Authorities and Policy Makers

Supply Chain

Energy Industry and Other Utilities

### 2 The Energy Data Community

*Trusted to act for our communities*

### 3 The Journey to net zero

*Tackling climate change and improving the environment*

### 4 A Safe, Secure and Resilient Network

*Keeping the energy flowing safely and reliably*

### 3 The Energy Data Community

- **Better visibility of data assets** is essential across the entire energy chain, from generation through transmission and distribution to end use.
- **Interoperability is critical** to ensure the future energy system functions seamlessly across technologies and organisations.
- **Innovation depends on open data**, requiring new data and insights to be shared widely with both current and future Data Users to shape future ways of working.

### 4 A Safe, Secure and Resilient Network

- **Multiple stakeholders will operate the future energy system**, requiring strong collaboration and coordination to maintain stability and security.
- **Resilience is a top priority**, and understanding how people and processes interact helps contain cascading failures and protect business continuity.
- **Climate resilience is essential**, with a need to understand how climate-related physical impacts affect assets to ensure high-quality service for customers.

# 3

## Delivering for our Stakeholders

# Stakeholder Engagement Methodology

**The foundation of our Digitalisation Strategy and the definition of our digitalisation themes is underpinned by the capability/service needs of our customers, colleagues and communities.**

We apply a digital design thinking approach to understand the capability and service needs of our customers and the data needs of our wider stakeholder community. This ensures our digitalisation and data plans are firmly grounded in both current operational priorities and the future requirements of a modern, low-carbon gas network.

Through user stories and structured engagement, we have developed a suite of digital persona profiles that represent the different groups who rely on, or intend to use, our data assets, digital tools and digitalised services. These personas help us design solutions that strengthen operational and planning decision-making, improve the services we deliver, and build the digital and data infrastructure needed to safeguard customers, stakeholders and the network.

Our three-dimensional Stakeholder Engagement Methodology enables this approach by combining active and passive insight gathering to identify, validate and prioritise needs. This ensures that our digitalisation strategy remains responsive, evidence-led and aligned to evolving whole-system expectations.

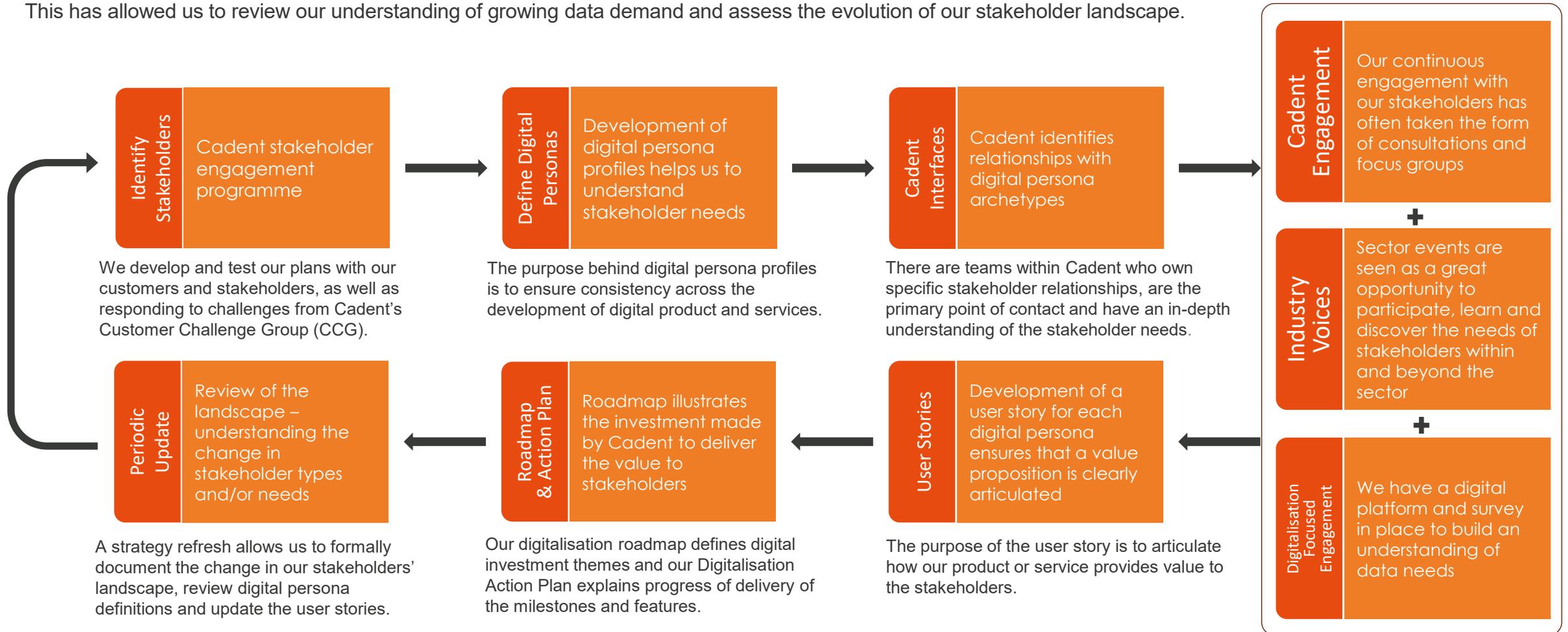
During the development of our RIIO-3 business plan, we engaged extensively with existing and potential data users to refine these personas and test our digitalisation proposals. Their feedback directly shaped our investment priorities. These personas, rooted in the needs they represent, now form the cornerstones of our digital and data roadmap to 2031, ensuring our plans support both today's requirements and the long-term transformation of our network.

The execution of the strategy is evidenced through reporting on progress on investments and digital actions through bi-annual updates to our [Digitalisation Action Plan](#).

# Stakeholder Engagement Methodology

Our engagement methodology has been designed to best reflect a variety of our stakeholders

We have expanded our stakeholder engagement over the last year introducing an online survey dedicated to capture the data and digitalisation needs of our stakeholders. This has allowed us to review our understanding of growing data demand and assess the evolution of our stakeholder landscape.



# Stakeholder Engagement Methodology

Our engagement methodology has been designed to best reflect a variety of Cadent stakeholders

Cadent Engagement	We continuously engage with our stakeholders through consultations, workshops and focus groups	<p>We utilise a variety of channels and methods, from direct engagements in the form of consultations and cross sector focus groups to indirectly gathering of feedback and needs through conversations and interviews with Cadent relationship owners.</p> <p>Cadent has been active in the working groups supporting forthcoming implementations such as DSI and RESP.</p> <p>Findings from Cadent's stakeholder engagement is additionally assured by our Customer Challenge Group. Our 2026-2031 business plan was been shaped based on the needs from our stakeholders.</p>
Industry Voices	We actively participate in sector events seeing them as a great opportunity to learn and discover the needs of stakeholders within and beyond the sector	<p>Through participation in sector events, forums and projects we have the opportunity to collaborate in the fields of:</p> <ul style="list-style-type: none"><li>• hydrogen and decarbonisation (<a href="#">Hydrogen Projects - Cadent Gas Ltd</a>),</li><li>• biomethane (<a href="#">Biomethane – Cadent Gas Ltd</a>), (<a href="#">Biomethane Connection Assessment – Cadent Gas Ltd</a>),</li><li>• innovative ways of serving our stakeholders (<a href="#">Innovation - Cadent Gas Ltd</a>) and</li><li>• making positive differences to the lives of our customers (<a href="#">Responsibility - Cadent Gas Ltd</a>).</li></ul> <p>These first-hand experiences allow our subject-matter-experts to describe and articulate stakeholders' evolving data and digital needs.</p>
Digitalisation Focused Engagement	We have a digital platform in place where we capture excellent metrics to understand data user needs, and to offer a strong route that data users can reach out to use to raise queries and questions	<p>The vast majority of our stakeholders are interested in Cadent asset data (assets location, material, operation and health) as evidenced by the metrics captured from the Open Data Portal. We openly publish data assets which have been developed to provide meaningful data, while protecting sensitive data, and continually review best practice from a security and risk perspective.</p> <p>We have engaged with stakeholders internally and externally to assess other data assets which are desired and will continue to expand the breadth of data assets published to meet the needs of more data users.</p> <p>We continue to welcome any data requests and feedback through our Open Data Portal website: <a href="https://cadentgas.opendatasoft.com/pages/feedback-and-engagement/">https://cadentgas.opendatasoft.com/pages/feedback-and-engagement/</a></p> <p>We will continue to develop and refine methods to improve the ease with which data users can engage with us and provide us with their insight.</p>

# Digitalisation Focused Engagement

## Recognising the growing need for visibility and accessibility of our Data Products

Requests for our data come from different stakeholders, including Government Authorities and Policy Makers, Supply chain and wider Energy Industry or Other Utilities. Development will continue to increase the breadth of data available, driven by data user need.

Between the start of RIIO-2 in 2021 and the end of 2024 we had c.100 Open Data Sharing requests.

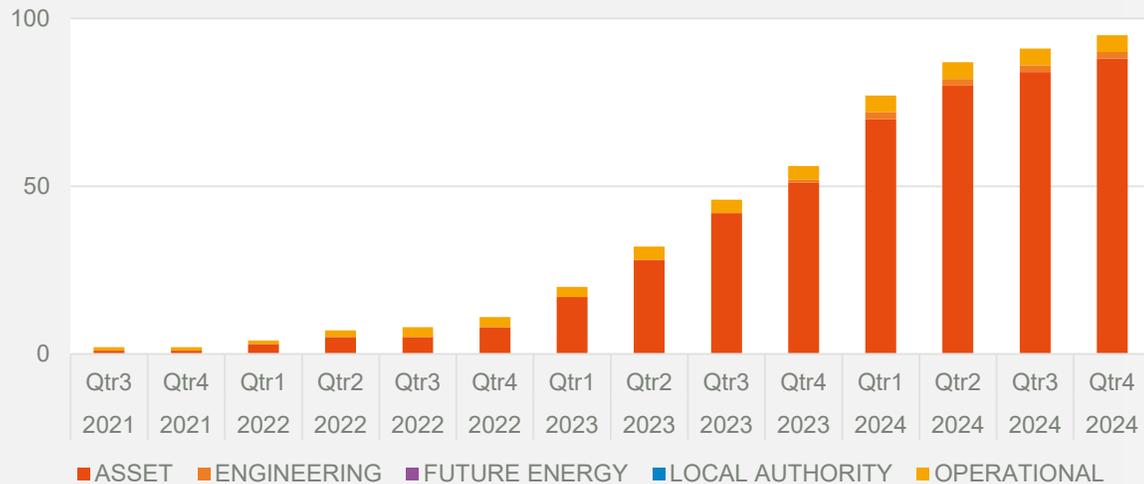


Figure 1: Data Sharing requests by Data Asset type – manually served (Cumulative)

The launch of the Open Data portal and dedicated, targeted Data Assets to serve specific customer personas has driven engagement substantially

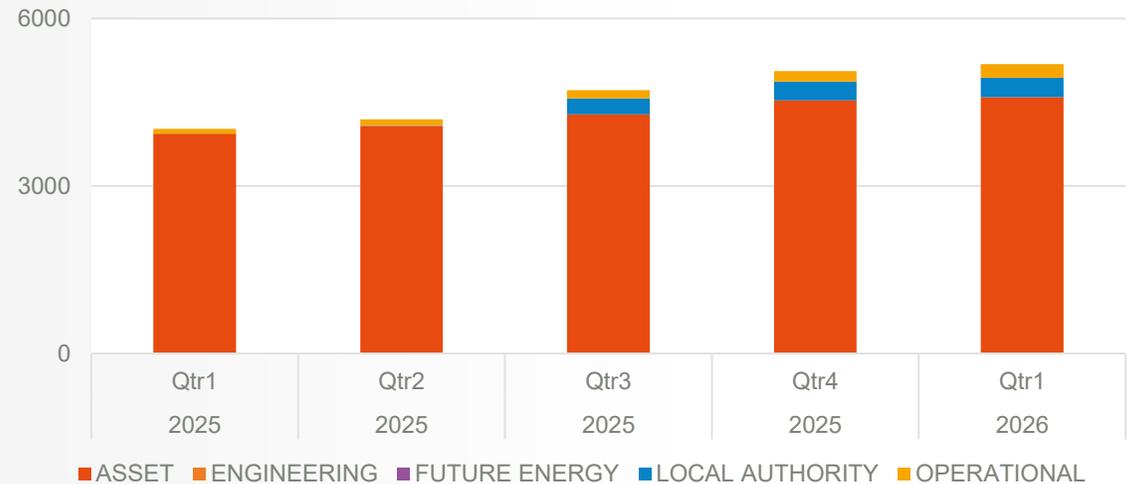


Figure 2: Full or partial data asset downloads from the Open Data Portal (Cumulative)

# Gas Data & Digitalisation Collaboration Group

We are a member of the Gas Data & Digitalisation Collaboration Group (GDDCG), which was formed by all the Gas Networks to collaborate in efforts to make gas data more accessible and interoperable for our Stakeholders, and collectively mature our approach and compliance with the Data Best Practice guidance. Through this group, we enjoy regular engagement with NESO in relation to the development of Data Sharing Infrastructure (DSI).

We continue to attend the Energy Network Association's Data & Digitalisation Steering Group open meeting as a guest, where regular updates from Innovate UK, NESO, Ofgem and DESNZ are presented.

We participate in the Open Data Working Group, a cross-sector forum for best practice.



Under the GDDCG we have established other sub-groups dedicated to looking at specific interoperability issues, including the initial development of the Gas Networks Interoperable Technical Data Standard, which has created a proof of concept (POC) of a common information model to define live pipes, and will continue to be expanded through RIIO-3, supporting wider investments with aligned data.

Through consultation with our CCG and through internal consultation, the data needs of both our internal staff and our communities & customers were profiled into digital personae. These were a foundational driver of the investments which have been approved for delivery in RIIO-3 and remain a touchstone to ensure delivery aligns to customer need.

# Industry Voices

**Our staff regularly participate in sector events, forums and cross-sector projects in areas of future energy, decarbonisation, innovation and safeguarding.**

Our staff share their insights and priorities from stakeholders they interact with. These first-hand experiences allow our subject-matter-experts to describe and articulate needs of their stakeholders and translate them into our user stories, ensuring that our digital personas evolve with growing data needs from the industry.

## Stakeholder Survey

In 2023, we issued a digital survey to 442 organisations and partners to understand their data and to prioritise delivery of this data through our Open Data Portal investment during the last 2 years of the RIIO-2 period.

Through direct activity metrics and the feedback mechanism available on our dedicated Open Data Portal we now have effective tools to continue to identify data assets to meet data user needs.

<https://cadentgas.opendatasoft.com/pages/feedback-and-engagement/>

Data Assets Type	Percentage of responses indicating interest in Data Asset Type*	Data Asset download through Open Data Portal by Asset Type
Gas Assets location main characteristics	95%	94%
Cadent Network Boundaries	89%	5%
Operational Data	58%	
Asset Health Data	53%	0.02%
Gas Demand Data	53%	Implementing

Figure 3: Demand for Cadent Data Assets from Stakeholder Survey 2023 vs Open Data Portal User Downloads 2025 - 2026

# Stakeholder Engagement Delivers User Led Change

The launch of our Open Data Portal to allow stakeholders to self-serve Cadent Data Assets, but also allowed us to deliver specific niche data assets to support data user need directly. By publishing curated open data assets we support our colleagues by minimising risk of data loss and reducing repetition.

Through assessment of user metrics on the Open Data Portal, and through engagement directly with the business in support of data sharing requests, we have identified areas of high demand for our data.

By investing in dedicated open data assets, we've unlocked deeper engagement and opened new pathways into these sectors. Gas is a critical part of the energy mix, and engagement with critical stakeholders, supported by accurate and timely data best represents the benefits Cadent's services provide.

	To 2025	2025 - 2026
Local Authorities Engaged in support of LAEP	23	120+
Dedicated Local Authority Asset Data assets	0	378

Figure 4: Indicative increase of engagement through development of dedicated data assets

This service provides insights on the behaviour and trends of our Data Users:

- **Statistics of stakeholder visits and types of organisations they represent**
- **Data Assets that are browsed and downloaded**

We are committed to sustain the three-dimensional stakeholder engagement methodology, as we believe it provides a comprehensive understanding of stakeholder needs; addressing both direct and indirect forms of engagement that is well suited for our diverse stakeholder community.

We will continue to broaden the range of data available to stakeholders, adapt to new routes of communication and engagement, with deliveries focussed on high interest areas such as Future Fuels.

Supporting direct engagement between stakeholders and our expertise within the gas sector allows us to deliver not just data but value through interpreting and modelling accurately and appropriately.

# Delivering for our Customers

## Applying digital design thinking to help us understand the changing needs of our Customers

We are delivering gas to 11+ million homes and businesses across our North West, West Midlands, Eastern and North London networks. We recognise the diversity of our customers and have developed four distinct digital persona profiles to systemise the needs expressed by our customers.



### Individual and Business Customers

*“I want a safe, reliable and affordable service”*

#### Priorities

- Affordable, transparent and fair bills
- A reliable and resilient energy supply
- Visibility of any planned work in my area, disruption to services and a quick response to fixing the issue
- Support customers in greater need with particular care during disruptions



### Customers in Vulnerable Situations

*“I want a reliable energy source, feel safe and independent in my home”*

#### Priorities

- Dedicated support throughout any outage to ensure my needs are met
- Clear communication in a format tailored for me and quick responses to my questions and needs
- A reliable and resilient energy source
- Affordable and fair bills, in a format tailored to my needs



### Low Carbon Connecting Parties

*“I want to be able to quickly and easily connect low carbon technologies at the lowest cost”*

#### Priorities

- Low cost, rapid and simple connections processes consistent across all Gas Distribution Networks
- Visibility of Cadent’s network capacity and network planning so I can understand where best to connect
- Collaborate on innovation projects and the journey to net zero



### Industrial Customers

*“I need to make the right investments for the future of the business”*

#### Priorities

- Collaborate in defining the future energy supply and decarbonisation plans
- Visibility of Cadent’s network planning and its readiness to supply low carbon energy
- Continue to have a secure and reliable energy supply at a fair price

# Individual and Business Customers

*“I want a safe, reliable and affordable service”*

Today, we provide a safe and reliable gas network to 11+ million homes and businesses. We have three main points of contact with our customers;- if they report a smell of gas, when they need to be connected to or disconnected from our network, or when our street works may impact them.

The primary need of our customers is a safe, reliable and affordable service. Recent changes in energy prices brought serious financial challenges to some of our customers, therefore fair and transparent bills are seen as the top priority. Our customers also want to use their preferred method of contact when engaging with us, and transparent processes and information about any disruptions in their areas. 45% of our customers searched online for help; journeys starting online set an expectation of a continuation through their channel of choice. With the growing interest and care about our environment, our customers want to understand how we can help them to decarbonise and access low carbon energy.



## *Enable channels suitable to my needs*

- Choice in contact method and easy access to Cadent services
- Automated self-service channel
  - Ability to find help and support via online channel
  - Quickly answered calls via our contact centre
  - Consistent and accurate information in an understandable format



## *Identification and personalisation*

- Personalised interactions:
- Relevant communication about interruptions or other forms of disruption
  - Regular updates when things change and proactive offers of solution to inconvenience caused
  - Visibility of gas assets around customer's location



## *Convenient process*

- Tailored services:
- Visibility of planned work or disruption in customer's area
  - Quick response to fixing issues
  - Tools and resources to self-serve over specialist visits where possible
  - Convenient online process to problem resolution



## *Green Energy*

- A reliable energy supply with no disruption
- Affordable and transparent bills
- Help in understanding customer's role and choices in decarbonisation
- Easily accessible and transparent information on energy transition and the role of gas in the future

# Customers in Vulnerable Situations

*“I want a reliable energy source, feel safe and independent in my home”*

We know our customers’ needs are varied; and some households need extra help to maintain a safe and warm home. This can be due to financial, social, health or environmental factors and our obligation is to identify additional services to support our customers who need them.

Today we provide an accessible and personalised service to customers in Vulnerable Situations. Over 7 million homes in Britain are registered on the gas suppliers’ [Priority Service Registers](#). We constantly strive to understand the range of circumstances that can lead to permanent or temporary vulnerability and how we can best support customers and colleagues in providing the best possible experience whilst interacting with us. Cadent provides a variety of support for vulnerable customers, such as centres for warmth and highly trained customer service teams. We are removing barriers to digital interfaces to prioritise ease, speed and responsive of Cadent services.



## *Enable channels suitable to my needs*

- Offering traditional and digital channels of communication
- Choice of channel for proactive engagement based on my needs
- Choice of channel for notification about planned work and disruption
- Easy and transparent information about planned interruptions in gas supply



## *Reliable and affordable service*

- Affordable and transparent bills
- Transparent and easy ways to join the Priority Service Register and associated support schemes and advice
- Proactive support during outages
- Awareness regarding special services and how to access them



## *Tailored Support*

- Dedicated support throughout any outage to ensure specific needs are met
- Identification to quickly deliver personalised and tailored products and services
- Evolve the support schemes to all who need support
- To include proactive support for new connections

# Low Carbon Connecting Parties

*“I want to be able to quickly and easily connect low carbon technologies at the lowest cost”*

As renewable energy becomes more important in the efforts to preserve our planet and its ecosystem, there are constant innovations in the world of science and the development of new energy sources. Cadent does not produce the low-carbon energy, but undertakes a critical role in delivering this to customers by enabling awareness of network opportunities.

We are involved in several hydrogen projects in partnership with the energy sector and lead in the areas of hydrogen blending and industrial and transport decarbonisation. The HyNet North West Hydrogen Pipeline project gives the opportunity for development of the first 100% hydrogen pipeline (<https://hynet.co.uk/>). The Hydrogen Valley project is a demonstration of how the current network can be repurposed and connect hydrogen producers and industrial off-takes across the Hydrogen Valley project region (<https://www.hydrogenvalley.co.uk/>).

Our gas network is already connected to 45 different biomethane production sites and provide heat for more than a quarter of a million homes. We are looking to significantly grow the number of connections over the next few years (<https://cadentgas.com/future-of-gas/biomethane>).



## Tailored Support

Simple and efficient connections process:

- Offering customers both digital and non-digital processes for the end-to-end connections journey
- Support through the connections process to provide connection options and solutions



## Reliable and affordable service

An open environment, collaborating to deliver net zero:

- Collaboration and open environment to help support both short and longer-term investment decision making
- Collaboration with wider industry stakeholders to deliver innovative solutions for net zero



## Convenient process

Simple and efficient process:

- Offering efficient tools to understand entry connection conditions, capacity constraints and cost estimates
- Consistency of the requirements and process across other distribution networks



## Information Sharing

Access to relevant network information:

- Relevant assets data and estimate of infrastructure upgrade
- Sharing scenario options for projects and collaborations
- Feasibility studies and safety cases documents

# Industrial Customers

*“I need to make the right investments for the future of my business”*

Our industrial customers are interested in understanding decarbonisation pathways for the regions in which they operate, the impact of energy transition on their businesses and the economic impact of the energy transition and market uncertainty.

Industrial customers are interested in renewable energy options, plans for industrial decarbonisations and how they can contribute to the discussions on the transition to net zero in Britain. There are long term economic impacts and investment choices that our industrial customers want to understand and influence. The considerations about future solutions that will keep the industrial clusters connected to the reliable energy sources, impact of the conversion on the stability of their businesses and deployment options are key areas of interest.

At the same time, visibility of low carbon solutions available today and security of gas supply for daily operations continue to be the main priorities for our customers.



## *Collaborative environment*

Access to relevant network information:

- Sharing information on network performance, capacity and other relevant insights to support business decision making
- Collaboration with other utilities and local government in the development of future plans affecting businesses



## *Tailored Support*

Easy access to Cadent:

- Personalised channels for support
- Self-service support options
- Digital channels and automated processes



## *Convenient process*

Simple and efficient processes:

- Automated processes for repetitive activities
- Simple and efficient processes for standardised services
- Dedicated support for more complex enquiries



## *Green Energy*

Support development of future strategy:

- Understand the options and paths for receiving green energy and reduction of carbon footprint
- Support in understanding the impact of energy transition on businesses

# Delivering for our Communities

## Applying digital design thinking to systemise the needs of our communities

We collaborate very closely with our stakeholders to fulfil our regulatory commitments and licence obligations and aim to be a force for good in society, making a real, sustainable difference to the communities we serve.

We recognise our distinct duties and obligations towards our communities and our role in developing future energy system for all.



### Safeguarding Organisations

*“I want to support and protect communities”*

#### Priorities

- Affordable bills and support for communities
- Collaboration with the energy sector to provide continuous and reliable energy to customers especially those in fuel poverty
- Collaboration with the energy sector to support inclusivity



### Government Authorities and Policy Makers

*“I need to ensure that the wider community’s interests are met”*

#### Priorities

- Collaboration and visibility of Cadent’s commitments, progress and journey to deliver net zero
- Visibility of network plans, new connections and disruption to service
- Accurate and interoperable data that allow us to understand the energy system at a national level



### Supply Chain

*“I want real time information and collaboration to deliver a better outcome”*

#### Priorities

- Provide open and reliable communication channels to share updates and changes
- Visibility of planned work and requirements for emergencies to deliver a safe and reliable network



### Energy Industry and Other Utilities

*“I want to shape the future of the energy system”*

#### Priorities

- Access to relevant gas network data through open data
- Collaborate to define the needs to enable net zero targets
- Visibility of planned work that will affect communities and put pressure on other energy networks

# Safeguarding Organisations

*“I want to support and protect communities”*

We strive to be a force for good within the communities we serve, helping customers and stakeholders to benefit from easier warmth, fairer opportunities and a greener society.

We are actively engaged in supporting charities and safeguarding partners, striving to help households improve their financial wellbeing and become more efficient through advice, support and practical measures (<https://cadentgas.com/cadent-foundation>). We bring industry participants together and contribute into governance groups in relation to customer safeguarding; being the voice of our community at the National Mental Capacity Forum Leadership Group.

We recognise that organisations supporting our customers often look for strategic, programme and specific project partnerships with us.



## Tailored Support

Personalised and tailored products and services that:

- Are supportive of the vulnerable and communities' specific needs
- Offer opportunities to co-create education material, training and communication
- Support joint community engagement



## Collaborative environment

A collaborative environment to:

- Develop new services to communities
- Increase accessibility to services
- Promote equity within the energy sector

Our digital strategy supports People and Place by strengthening collaborations such as Centres for Warmth and partnerships across the Priority Services Register. Through improved digital capability, we enable more effective support, education, planning and delivery of a fair, customer aware and affordable service. We are building digital environments that enhance Cadent colleagues' awareness and decision making, particularly around social return on investment and safeguarding, ensuring we deliver greater value for the communities we serve.

# Government Authorities and Policy Makers

*“I need to ensure that the wider community’s interests are met”*

The Government is responsible for setting policy for energy sectors, Local and Regional Authorities develop Local Area Energy Plans (LAEP). Regional Energy Strategic Planners (RESP) and the Authority (Ofgem) protect consumers by ensuring they are treated fairly and benefit from a cleaner and greener environment.

We recognise these parties as stakeholders with specific requirements and needs that we are obligated to satisfy.

We work with government authorities on local, regional and national level in efforts to decarbonise the energy system. The Department for Energy Security and net zero Digitalisation Strategy, and the subsequent response to the energy taskforce report on delivering a digitalised energy system, sets out the expected efforts the energy sector should undertake in accelerating net zero through digitalisation.

We are an active voice in shaping the hydrogen role in Britain's future energy system and support local authorities in shaping their decarbonisation plans.



## Information Sharing

Access to relevant network information:

- Performance against our business plan commitments.
- Impact of major disruptions on consumers
- To understand future energy transition scenarios

## Collaborative environment

An open environment:

- To discuss the required changes within the industry to accelerate net zero efforts
- Innovative on solutions that bring efficiencies to the sector
- Support for LAEP and RESP

## Whole System approach

Evidences and inputs on:

- Options and scenarios for long term network planning

## Green Energy

Ensuring security of energy supply by minimising digital and physical threats:

- Ensure sector and system resilience and stability

# Supply Chain

*“I want real time information and collaboration to deliver a better outcome”*

Cadent consists of four distribution networks, covers a significant geographical area and relies on a wide supply chain for both goods and services. The companies we work with help us create a sustainable and reliable supply chain and we recognise their needs as part of our community. We recognise excellence with the [Cadent Congratulates awards](#).

Our supply chain is an essential component in the energy ecosystem, so we will continue to leverage and collaborate with each other to innovate across the end-to-end value chain of the energy sector.

Through data sharing and innovation, we co-create new products and services that benefit our customers.

Our collaboration brings tangible efficiencies; decreases operational costs and reduces the impact of delivering our essential work for our customers.



## *Enable channels suitable to my needs*

Tailored communication channels:

- Open and reliable communication channels to share updates and changes



## *Information Sharing*

Access to relevant network information:

- To enable optimised planning of work execution
- Understand changes in the network



## *Live updates*

Live updates and information:

- Access to real time planning updates to enable end to end visibility of the service to provide to customers real-time information



## *Collaborative environment*

- An environment and tools that enable innovation through joint working

# Energy Industry and Other Utilities

*“I want to shape the future of the energy system”*

The future of the energy sector is influenced and delivered through ongoing collaboration across a broad community of stakeholders. Our partners in the energy sector and other utilities want to work together to address the main challenges of the industry and optimise the ways we work for the benefit of our consumers.

We work in collaboration with peers in the energy sector (Distribution and Transmission Network Operators) and beyond (e.g. water, infrastructure and transportation industries) to explore paths of energy transition and the delivery of net zero ambition.

We continue to collaborate in shaping delivery plans and engage on their execution to deliver better customer outcomes, drive innovation and develop and share best practice between each other.

Our partners within and beyond the energy sector expect us to work in an open and transparent way, co-create new ways of working through joint programmes and industry debate, and invest in sharing our data and insight to unlock customer value.



## Whole System approach

A whole systems approach to:

- Understand the resilience of energy system and reduce disruption and cost
- Effective planning of investments to provide the best value to the consumers



## Information Sharing

Access to relevant network information:

- Sharing of network information both in real-time, to understand disruptions, and future looking decarbonisation plans
- Data which is interoperable between energy networks
- Data shared through common channels



## Collaborative environment

An open environment:

- To support both short- and longer-term investment decision-making to deliver innovative solutions and pathways for net zero
- To exchange ideas and look for synergies between investments



## Tailored Support

Access to:

- Relevant network and asset information to boost effectiveness of their services
- Best practice and adopted methodologies to collaborate on common standards across industry
- Learnings and discoveries from chosen projects to capitalise on our experiences

# Delivering for our Colleagues

## Our Engineering colleagues ensure our network operates in safe and secure manner

Engineering staff are at the heart of our gas network operation. They control and manage the pressure system within our network to ensure we are meeting gas demand in a safe and secure manner. They are responsible for oversight and safety of any intervention being performed at any of our gas sites or to gas assets, through development of engineering polices, standards and processes that meet expectations of Health and Safety Executive.



### Energy Control Centre Specialist

*“I need to understand the performance of our network at any time to ensure we operate in a safe and secure manner.”*

#### Priorities

- Visibility of the network performance in real-time and any unplanned interruptions
- Accurately predict future demand of gas and forecasting models



### Engineering Team Specialist

*“I want to effectively maintain and manage the integrity of our network assets”*

#### Priorities

- Comfortable access to engineering documentation, plans and data
- Ability to predict and simulate events on our network



### Energy Operations Specialist

*“I want to perform required activities on our network assets in the shortest time possible”*

#### Priorities

- Explore use of analytics to identify preventative maintenance opportunities
- New tools and processes to reduce intervention time on site

# Energy Control Centre Specialist

*“I need to understand the performance of our network at any time to ensure we operate in a safe and secure manner.”*

Energy Control Centre Specialists monitor high pressure gas network performance. They respond to alerts, coordinating with Energy Operations field teams to ensure the continuous safe and reliable supply of gas to customers. With such complex controls, ensuring a user-centric design is critical to improve visibility and control over the network.

Energy Control Centre (ECC) team monitor our gas network in real-time to ensure that we are meeting the gas demand from our customers. It is also their responsibility to anticipate future gas demand to ensure resilience of our gas network.

The team triages any alarms flagged by our main network control system to understand if intervention is required and assign work to be completed by Energy Operations team to maintain reliable operation of our network.



## Live updates

To perform in my role, I need:

- Live updates from alarms and sensors
- Visibility of the network performance in real-time and any unplanned interruptions
- Streamlined processes to assign work to field teams



## Information Sharing

In my role I need access to:

- Data about construction and condition of our gas assets
- Information about planned works
- The location of field teams and status of faults resolution



## Whole System approach

To increase network resilience, I want:

- Access to weather and environmental information to understand the impact of climate on the resilience of the network
- The ability to detect abnormal behaviour of any asset in our network



## Collaborative environment

I need to work with others to:

- Accurately predict future demand of gas and forecasting models
- Ensure integrity of data between control system, planning assumptions and work execution
- Have visibility and understanding of lower pressure network behaviour and constraints

# Engineering Team Specialist

*“I want to effectively maintain and manage the integrity of our network assets”*

The Engineering team is responsible for the engineering framework of policy, procedures, and competence and compliance to manage the integrity and functionality of our network assets. They provide technical expertise and assistance to ensure functional safety of our network by appropriate management, design, installation and operation of the network assets that reduce the risk of a major incident.

The Engineering team is our technical authority for all components of the engineering framework applicable to the high-pressure network and local distribution network, standards and engineering discipline throughout the electrical, instrumentation, tele coms, gas quality assets lifecycle and standards for emergency response and safe control of operations.

This includes both current transportation of natural gas and emerging hydrogen transportation requirements.

The team provides subject matter expertise and second tier technical support to other teams in our organisation and undertakes key interactions with the Health and Safety Executive (HSE) to demonstrate compliance with regulations.



## Information Sharing

To perform in my role, I need:

- Access to engineering documentation (e.g. site drawings, diagrams) and existing technical and maintenance asset plans and data
- Access to historical and new sensor, environmental and fault data
- Access to process documents and engineering specifications



## Tailored tools

To ensure safety of our network assets, I need to:

- Diagnose and model the cause of the asset failure supported by diagnostic data
- Analyse asset performance
- Detect anomalies in network asset behaviour and calibrate the assets



## Convenient process

To manage our compliance with regulations, I need:

- A robust and accessible document management system that links to engineering documentation, maintenance processes and handover plans



## Whole System approach

To support our investment strategies, I need:

- The ability to predict and simulate events on our network to ensure competency within the organisation to react to rare events and support development of proactive maintenance plans
- To research new equipment and technology to effectively manage obsolescence in our network

# Energy Operations Specialist

*“I want to perform required activities on our network assets in the shortest time possible”*

The Energy Operations teams develop plans and perform routine maintenance activities. They react to alarms and resolve issues on our network to maintain the operation of our network.

The team is responsible for managing the network asset health through development, with collaboration with stakeholders, regular maintenance plans.

This includes sourcing network assets parts and spares, asset renewals and decommissioning activities.

The objective of the team is to minimise the downtime of our network; therefore, Energy Operation Specialists are looking for opportunities to reduce reactive work and maximise the time focused on improving the network performance with proactive maintenance plans.



## Information Sharing

To perform my role, I need to:

- Access gas asset construction, performance and diagnostic data to execute the maintenance activities
- Understand the construction, layout and design of our gas sites to ensure fast and right-first-time resolution to any issues



## Tailored tools

To reduce the downtime of our network I want:

- The ability to predict the failure of our assets before they occur to minimise the network down time and develop proactive maintenance plans
- Seamless self-service access to engineering schemes and data to perform my tasks quickly



## Convenient process

To optimise my performance, I want to:

- Have visibility of equipment stock levels and easy access to photos and videos of the sites to minimise the time spent on site
- Understand the leakage across the network areas to optimise the site visits



## Live updates

To support development of proactive maintenance regime, I want to:

- Explore use of analytics to identify preventative maintenance opportunities
- Remotely access the sites to resolve issues to reduce time on site
- Have visibility of real-time controls performance

# Delivering for our Colleagues

## Enabling data driven insights and decision-making

We have a number of colleagues who shape our investment proposals and plans, analyse our networks' resilience and evaluate plans to fulfil the commitments and obligations we have to our customers and communities. We recognise their expertise and contribution towards shaping the future of the energy system and optimising the way our organisation work and operates.

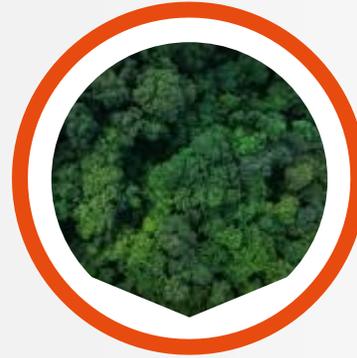


### Future Energy Specialist

*“ I want to explore future energy pathways and understand what it means to our investments and our customers”*

#### Priorities

- Provide data, insights and subject matter expertise to our communities to support their net zero plans
- Easily compare different energy scenarios and quantify potential implications for our organisation and our customers



### Climate Resilience Specialist

*“I need to understand the physical impact of climate disruptions to enable the safe and reliable operation of our network”*

#### Priorities

I want to understand:

- levels of climate risk across our network in the short and long term
- dependencies we have with other systems which may also be impacted by climate change



### Asset Investment Specialist

*“I need to understand the appropriate balance of investment in our network in the short and long term to maintain a safe and reliable gas network”*

#### Priorities

- Ability to develop robust investment plans flexing assumptions and potential changes in gas-supply demand
- Unify the tools and approach for investment planning at different planning horizons

# Future Energy Specialist

*“I want to explore future energy pathways and understand what it means to our investments and our customers”*

Future Energy Specialists work with our communities (e.g. NESO, DESNZ and Local Authorities) to shape proposed future energy pathways and support development of localised net zero plans.

Their role is to provide critical information and expertise regarding information about our gas network, quantify what the introduction of additional low carbon gases might mean to our customers and understand the role for our gas distribution network in the future energy system.

Our specialists understand the potential and implications of new sources of energy such as hydrogen and biomethane to the energy mix and how these can change gas networks over time.

They provide expertise and guidance on considerations for long term asset investments and actively collaborate with NESO and Regional Energy Strategic Planners (RESP), providing data and expertise to refine the Future Energy Scenarios (FES) and ensure these realistically reflect the complexities of the energy transition at a regional basis.



## Collaborative environment

To perform my role, I need:

- To have appropriate tools to educate, explain and evaluate local and regional planning scenarios
- To provide data and insights to support accurate projections of Future Energy Scenarios
- Convenient solutions to share data and plans with Local Authorities to support their LAEP and RESP



## Information Sharing

I need to have access to solutions that allow me to:

- Enable effective collaboration with my stakeholders
- Leverage high quality Data Assets describing our network operations and network assets
- Access third party data and securely use them to support scenario modelling and analysis



## Tailored tools

Accessible platforms that allow me to:

- Scale and evolve scenario modelling parameters
- Introduce new global and local assumptions
- Recalculate the scenarios quickly and consistently
- Share chosen outputs from the modelling with others

# Climate Resilience Specialist

*“I need to understand the physical impact of climate disruptions to enable the safe and reliable operation of our network”*

There is a need to understand and quantify climate risk exposure to ensure our asset health plans and interventions appropriately mitigate our risk, and our continuity plans, environmental frameworks and reporting are in place so we can provide transparency and visibility of the impact of climate change on the resilience of the operation of our network.

Uncertain and changing climate events bring the risk of more disruption and damage to our assets than our historically stable climate. Subsequently, continuing to meet our legal obligations requires us to adapt to climate change. We want to develop a systematic response and clear strategy that allows us to identify, quantify and mitigate these new risks to ensure safe and resilient operation and investment in our network.

Further longer-term granularity of the effects of the changing climate will help us to improve accuracy of our forecasts to better understand how our network is likely to change in the future.



## *Collaborative environment*

To perform in my role, I need:

- Introduce a common language and framework to describe climate change risks and potential implications (e.g. in asset investment, supply chain and on customers)
- Develop climate resilience reporting standards make our information accessible



## *Tailored tools*

To achieve my obligations, I require:

- Tools which allow us to model the risk by individual networks and local geographic areas
- Platforms to store and organise climate related data to be used for modelling
- Local environment data easily interoperable with our network and asset data



## *Whole System approach*

A collaborative environment to:

- Ensure that climate scenarios are easily integrated with asset management plans
- That other Data Users potentially impacted by climate change can access and use the model outputs



## *Convenient process*

An efficient process to :

- Provide modelling outputs to support the environmental framework
- Systemise reporting against climate risk and impact on our environmental plan

# Asset Investment Specialist

*“I need to understand the appropriate balance of investment in our network in the short and long terms to maintain a safe and reliable gas network”*

Our Asset Investment team is responsible for identifying and planning the execution of investments we make in our network assets to efficiently deliver a safe, secure and resilient distribution network now and in the future.

Our Asset Management community’s ambition is to create and maintain a 10-year rolling investment plan and have flexibility to adjust the plan to account for changing stakeholders’ needs and possible scenarios, as we shape the UK future energy sector and identify new opportunities to address network resilience risks while ensuring investments at optimal cost.

We want to utilise more of our existing data and new information to easily refresh and expand our models to help us shape a proactive operating model in our organisation focusing on operational excellence and balanced investments cost.



## Information Sharing

To perform in my role, I need:

- Interoperable Data Assets that describe our network, its health and condition by geographic regions and by gas asset types.
- Detailed history of failures, risk profiles and interventions made to our gas assets
- Robust financial data that allow to forecast the cost of future investments

## Tailored tools

To achieve my obligations, I require:

- Tools that can accommodate our network models, financial assumptions and quantify the risk factors to be considered in our investment plans
- Visibility of the entire gas asset portfolio, investment forecasts and data that explains how we perform against the plans in regular intervals to allow us to change elements of our plans if required

## Collaborative environment

A collaborative environment to:

- Share our plans with the wider Asset Management community in our organisation and our partners to drive change in ways of working in our organisation
- Incorporate new data to continuously evolve and adapt our investment strategies and decisions

## Whole System approach

To accelerate our efforts towards net zero, I need to:

- Have visibility of, and easy access to, future energy scenarios and climate risk scenarios for stress-testing our investment plans

# Delivering for our Colleagues

**Our colleagues interact directly with our Customers to keep them safe and well informed.**

We execute our commitments and obligations by attending our assets when interventions are required, keeping our customers informed, supported and safe and regularly report on our performance and update our Stakeholders on how we are meeting our commitments and obligations.



## Field Engineer

*“I want to have the right tools and support to deliver first-time-right resolution”*

### Priorities

- Accurate information to execute jobs efficiently
- Right tools to easily capture required details about the work status



## Customer Experience Specialist

*“I want to quickly and easily provide assistance to Customers and ensure they are safe”*

### Priorities

- Information about customer contact history and status to ensure I can provide relevant updates
- Visibility of any current interventions and interruptions' status in the local area that might be affecting customer



## Reporting Specialist

*“I need the right data and tools that allow me to describe how we are meeting our obligations and commitments”*

### Priorities

- High quality Data Products describing organisational and regulatory Key Performance Indicators
- Training and skills to feel confident in business intelligence and self-serve analytics

# Field Engineer

***“I want to have the right tools and support to deliver a first-time-right resolution”***

Our Field Engineers attend emergency response situations and conduct repairs on our gas networks. We complete the work for large scale Mains Replacement programmes (Repex) through our Local Delivery Partners network. The Field Engineers spend most of their time performing work directly on our gas assets, working in, sometimes, challenging on-site conditions.

Our Field Force community is required to perform their work in line with safety, regulatory and legal obligations. They need to easily access information that help them execute their work in compliance with gas engineering practices. Field Engineers are also responsible for providing information and details about the work execution, gas asset status and condition details, safety checks and test performed, and people and properties affected by any interruption of gas supply. Their first-time-right resolution of interventions heavily rely on accurate information to be on hand.



## Tailored tools

To perform in my role, I need to:

- Understand which gas assets are at any given location, how they are constructed and what work is required to be completed
- Have access to historical maintenance and service records
- Easy way to correctly record details of the work performed



## Information Sharing

To achieve my responsibilities, I require:

- The right information about affected properties and customers
- The ability to visualise the gas network elements and procedure details if I require additional information
- Convenient way of sharing details of my work status with others



## Live updates

To ensure first-time resolution, I need:

- To be in contact with my colleagues and supervisors
- Solutions that allow me to reduce my manual data inputs and convenient ways of capturing work details that can reduce time spent at a given location.



## Convenient process

I need convenient processes to:

- Ensure I travel to a designated location well prepared
- have the right equipment, tools and parts available to execute my work

# Customer Experience Specialist

***“I want to quickly and easily provide assistance to customers and ensure they are safe”***

Our Customer Experience Centre focuses on providing a quality experience to all our customers. Our Customer Centre is responsible for operating the National Gas Emergency line 24 hours a day, 365 days a year. The Dispatch team is responsible for allocation of our Field Engineers as soon as possible to make our customers safe. The Connection team ensures that gas services are delivered to customers and the Customer Insight team is handling customer enquiries and complaints.

Our colleagues in the Customer Experience Centre are often the first point of contact for our customers. They strive to keep customers safe and well informed. Their success is dependent on the availability of communication platforms and systems that provide visibility of the work near the customer’s location.



## Live updates

- To perform in my role, I need:
- Access to real time information about our network operations in the customer’s local area and timely updates to keep customers well informed
  - Information about customer contact history and status to ensure I can provide relevant updates



## Information Sharing

- To provide excellent service, I need to:
- Have consistent information regardless of customer’s choice of communication channel
  - Have easy access to materials that can guide me through more complex customer’s interactions



## Tailored tools

- Understand customer’s preferred contact channels and be able to respond and deliver the required support through the chosen channel
- Resilient communication platforms and telephony service, so I am always available
- Ability to deliver the same quality experience across digital and in personal communication channels

# Reporting Specialist

***“I need the right data and tools to allow me to understand our current performance and how we are meeting our obligations and commitments”***

As a regulated organisation we have a Licence which specifies how we need to evidence that we meet our obligations and fulfil commitments we make to our stakeholders. Every year we share our cost and volume submission with our regulator to explain how we are performing on our obligations. We also make other statistics and Key Performance Indicators (KPI) available to our stakeholders to evidence our safety, environmental and resilience commitments.

A significant number of our colleagues have responsibilities to prepare relevant operational and regulatory reports to provide transparency of Cadent’s performance.

Reporting is an area that can be significantly automated and digitalised to decrease the effort involved in the preparation and curation of data required to feature in our regular reporting, enabling a shift in focus for our data experts to interpret the information presented to them and understand how to promote data-driven decision making in our organisation.



## *Collaborative environment*

To deliver my commitments, I need:

- The right platforms to access data products with appropriate tools to allow me to interrogate the results, and perform additional analysis quickly and confidently
- To understand what data is available and accessible to me and request changes to be made in timely manner to data I need



## *Tailored tools*

To perform my responsibilities well, I need:

- High quality data from our IT systems and from our partners, aggregated to the definition of prescribed KPIs
- Fully automated and auditable processes and workflows that generate the right information for me at the required frequency



## *Information Sharing*

- I want the same data to be available in different tools I interact with
- I want to be assured that data I am responsible for is visible only to those who require access to this information
- I want to be able to reuse the same data multiple times for different purposes

# 4

## Our Digitalisation Roadmap

# Digitalisation in the Energy Sector

The Energy Sector Digitalisation Plan outlines six sector outcomes to form the Clean Power Action Plan, underpinning [Clean Power 2030](#)

[NESO's 2025 Energy Sector Digitalisation Plan](#), developed in partnership with Energy Systems Catapult, "aims to help unlock the full potential of digital technologies across the sector, fostering innovation and driving progress towards a more efficient and resilient energy system". This document, and 2022s "[Delivering a Digitalised Energy System](#)" has shaped Cadent's Digitalisation Framework, which in turn has underpinned our digitalisation investments into RIIO-3.



# Our Digitalisation Framework

Our Digitalisation Framework defines three main investment themes underpinned by cyber security principles



## Interoperability

### Breaking down the silos

Interoperability is key to increase safety, security, resilience and efficiency of the energy system. There is value in breaking down the existing siloes within and between organisations and harnessing the emerging interactions of different digital assets.

Suitable digital standards, tools and platforms are required to realise the vision of an efficient distributed energy system.



## Data & Digital Literacy

### Setting up our people for success

Delivery of a digital energy system requires digitalisation culture to be embedded within organisations.

Data and Digital competencies, predominantly required within Information Technology & Data functions, need to grow in all areas of the organisation to enable effective management of a digital system.



## Open Data

### Enabling data driven decision making

Access to good quality data is a fundamental requirement of digital innovation, both internally within the organisation and across the sector.

The energy data needs to be available through appropriate solutions and services tailored to different needs of energy Data Users.

## Cyber Security Principles

Defence in  
Depth

Secure by  
Design

Zero Trust  
Architecture

Governance

Collaboration

User  
Awareness

# Role of Security Strategy in our approach to digitalisation

## Key Security principles at Cadent

The core of our Cyber Security Strategy is to adopt a threat-based approach to risk to inform our approach to resilience across our assets and processes and in support of the development of digital Products and Services.

*Defence in Depth*

Defensive measures are layered throughout our systems and networks to increase redundancy and minimise the impact of a single point of failure.

*Secure by Design*

Security is built into the design of new systems from the outset and considered throughout its operational lifecycle rather than as part of a review and transition to operations. A secure architecture is an essential requirement alongside security assurance activities.

*Zero Trust Architecture*

The principle of zero trust architecture will be a 'North Star' for the management of all identities including Data Users, services and devices. Inherent trust in the network is removed so each identity request should be assumed hostile and verified based on policy.

*Governance*

Governance controls are effective in directing our approach to cyber security with clear responsibilities, goals and board risk appetite adherence. Published frameworks are used to continually improve our security management system such as NIST and ISO27001.

*Collaboration*

We take a collaborative approach to cyber security to strengthen all our defences. Strong relationships are built with government, industry peers, regulatory bodies, key suppliers and academia.

*User Awareness*

People should be considered the strongest link in security. A well informed and vigilant workforce will provide a strong first line defence against threats, improve cyber risk management and overall organisational resilience.

# Our Ethical AI Principles

Technological innovation is taking place at pace. Artificial Intelligence is a rapidly emerging technology that may impact delivery during RII0-3. To be prepared for this we have created six ethical AI principles to guide implementation of these exciting new tools. These are aligned to Ofgem's [Ethical AI use in the energy sector](#)

## Safety and technical robustness

We design and implement AI systems that prioritise the physical safety of the public, our workforce, and infrastructure.

Our systems are rigorously tested for resilience, with built-in redundancies and fail-safes to prevent harm from errors, faults, or malicious attacks.

Cybersecurity is integral to our AI design, ensuring protection from evolving threats while maintaining service continuity.

## Security and accountability

We are committed to ensure all AI-driven decisions and processes are transparent and auditable.

We maintain robust documentation and clear lines of responsibility, empowering internal and external stakeholders to scrutinise and understand how AI systems function and are governed.

We are committed to ongoing monitoring and timely updates to mitigate risks as they emerge.

## Fairness, Diversity and Inclusion

We are committed to developing AI systems that are fair, unbiased, and inclusive.

Our data and algorithms undergo continual evaluation to identify and eliminate potential discriminatory outcomes.

Cadent supports equitable energy access for all communities and uses AI to help reduce systemic inequalities in energy services.

### Ethical AI Principles

Safety and technical robustness

Security and accountability

Fairness, Diversity and Inclusion

Environmental Sustainability and Societal Benefit

Human Oversight and Transparency

Privacy and Data Governance

# Our Ethical AI Principles - continued

## Our six ethical AI principles continued.

### Environmental Sustainability and Societal Benefit

We leverage AI to enhance energy efficiency, reduce emissions, support the transition to low-carbon gas systems and better identify and serve the needs of vulnerable customers.

We assess the environmental impact of our digital infrastructure and optimize our systems to minimize resource use while maximizing societal value.

### Human Oversight and Transparency

We ensure that human judgment remains central in critical decision-making.

All AI deployments at Cadent are designed to support - not replace - human expertise, with clear interfaces for oversight, intervention, and accountability.

We are committed to explainable AI, enabling stakeholders to understand how AI outcomes are derived and what data informs them.

### Privacy and Data Governance

We uphold the privacy rights of individuals by embedding responsible data governance throughout our AI lifecycle.

Data used in our AI systems is managed securely, ethically sourced, and processed in compliance with all relevant legal and regulatory frameworks, including GDPR.

### Ethical AI Principles

Safety and technical robustness

Security and accountability

Fairness, Diversity and Inclusion

Environmental Sustainability and Societal Benefit

Human Oversight and Transparency

Privacy and Data Governance

# Interoperability Theme – Investments

Interoperability investments focus on data platforms and tools that allow our colleagues to organise and store different types of energy data and integration efforts to ensure that our energy data is made available to a range of our stakeholders for use through digital Products and Services.



## Interoperability

### Breaking down the silos

Interoperability is key to increasing safety, security, resilience and efficiency of the energy system. There is value in breaking down the existing siloes within and between organisations and harnessing the emerging interactions of different digital assets.

Suitable digital standards, tools and platforms are required to realise the vision of an efficient distributed energy system.

### Categories of investments within interoperability workstream:

- Gas network interoperable technical data standard
- Energy Data Catalogue
- Digital spine for the energy system
- Internal data architecture & integration

### We have invested so far in:

- Foundational data platforms that allow us to build reusable enterprise data models – in line with decomposable target data architecture that we have adopted in our organisation - to ensure that each of our Data Assets have clear definition and supporting information for Data Users. We will continue developing our Data Assets in core platforms to enrich the set of our Data Assets while ensuring that accompanying standards and definitions are appropriately governed within our organisation.
- We are collaborating with other Gas Distribution Networks, through the Gas Data & Digitalisation Collaboration Group, to identify and create consistently formatted Data Assets developed with common definitions where appropriate. These are driven by either data user need, or will be developed as part of industry-wider project requirements.

### We will invest in:

- Expanding data platforms to enable us to prepare new types of Data Assets by introducing capabilities to manage Building Information Model data, analyse the information from Operational Technology (OT) devices and understanding the impact of different scenarios and events on our network.
- A common standard shared between Gas Distribution Networks for a Gas Data Information Model to provide to our Stakeholders within and beyond our sector, providing one definition for gas data to simplify and reduce efforts related to modelling gas energy information in other digital solutions.
- Connecting to developing Data Sharing Infrastructure in preparation for new data sharing mechanism within energy sector.

# Interoperability Investment Roadmap

RIIO-3 Start

FY 25/26

FY 26/27

FY 27/28

FY 28/29

RIIO-3 Yr 4+

Standards for Gas Data

● Live Pipe Asset comparison between GDNs

● LDZ Boundaries

● Decommissioned Pipes

Digital Spine Of Energy System

● Development of the DSI gas data related use-cases, pre deployment workshops

● Data Sharing Infrastructure (DSI) MVP

● Data Sharing Infrastructure (DSI) Public Beta Starts

Energy Data Catalogue

● Data Cataloguing Approach and Standard

● Evolution of Data Asset Catalogue

Delivering Target Data Architecture

● Third Party Data Ingestion Standard

● Scenario modelling internal capability

● Asset Risk & Hazard Library

● Re-usable API library MVP

● Cloud based data solution adoption

● Building Information Model

● OT Analytic Platform

# Data & Digital Literacy Theme – Investments

We continue to build a strong data user community by incorporating experts from across our business at all stages of our investments, maximising digital investment value and embedding digital ways of working. This prepares us for emergent technologies within our processes and across the wider sector



## Data & Digital Literacy

### Setting up our people for success

Delivery of a digital energy system requires a digitalisation culture to be embedded within organisations.

Data and Digital competencies, predominantly required within information technology and data functions, need to grow in all areas of the organisation to enable effective management of a digital system.

### Categories of investments within data & digital literacy workstream:

- Digital Governance and Risk management models
- Data and Digital Literacy
- Change management and business value and need driven mindset

### We have invested so far in:

- A dedicated Data and Digitalisation team that develops and maintain our existing data platforms, develops and matures associated reusable enterprise data models definitions and integration.
- Dedicated Cadent IT delivery process developed to support digital Product and Services development.
- We have grown internal skills to address the need to evolve our compliance with Data Best Practice (DBP) and expanded our Data Governance team to align our internal data management goals and targets with digitalisation requirements.
- We have adopted Data Best Practice standards and introduced in the organisation Open Data Triage process, Data Catalogue requirements and Metadata standards.

### We will invest in:

- Strengthening and expanding our Data Users community to maximise adoption of our digital investments across the organisation and sharing insights with the wider energy sector.
- Mature our compliance with Data Best Practice guidance and further educate our internal staff on principles and activities required for effective management of our Data Assets.
- Explore how and where ML & AI can help us drive operational efficiency.
- We will expand our engagement with external stakeholders: focus on growing the relationships with local authorities to support development of their Local Area Energy Plans (LAEP), development of Regional Energy Strategic Plans (RESP) and whole system planning.

# Data & Digital Literacy Investment Roadmap

RIIO-3 Start

FY 25/26

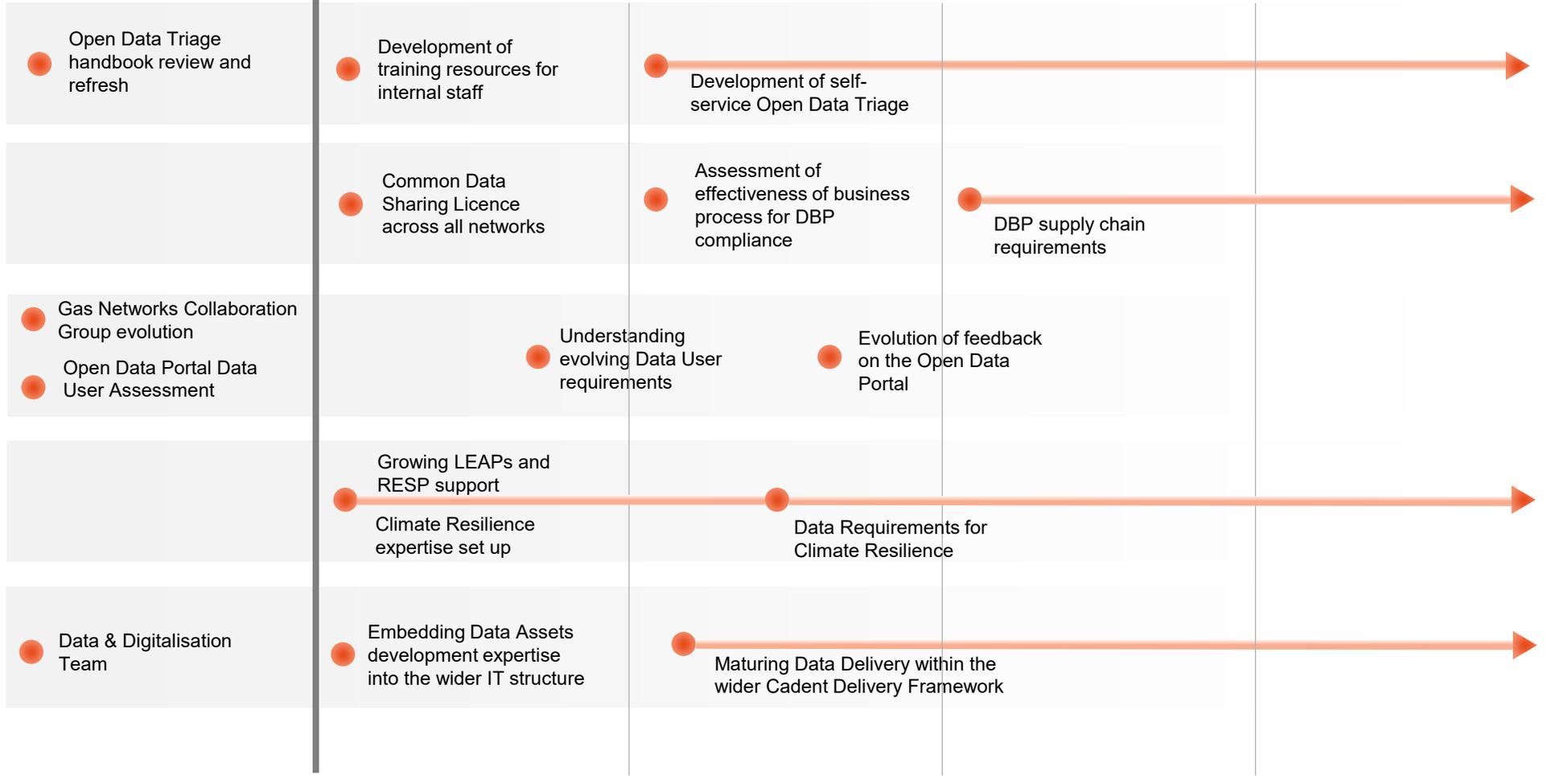
FY 26/27

FY 27/28

FY 28/29

RIIO-3 Yr 4+

- Data Triage Capability
- Evolution of DBP compliance
- Evolution of stakeholder engagement
- Expanding Data User community
- Digital Ways of working



# Open Data Theme – Investments

**We will invest in development of modern interactive digital interfaces for scenario modelling and geospatial visualisation to enable our staff to shape business strategies based on data driven insight.**



## Open Data

### Enabling data driven decision making

Access to good quality data is a fundamental requirement of digital innovation, both internally within the organisation and across the sector.

The energy data needs to be available through appropriate solutions and services tailored to different needs of energy Data Users.

### Categories of investments within open data workflow:

- Open Data Portal
- Digital services for our customers
- Digital partnerships with our community

### We have invested so far in:

- Open Data Portal, a digital solution for our stakeholders to access and discover Cadent Data Assets, complemented by supporting information and available for use to Data Users in machine readable formats.
- Dedicated sub-page on our website that presents our approach, standards and vision for digital Products and Services.
- Field Service Management (FSM) digital solution dedicated to the field to capture data and submit it to our core ERP system.

### We will invest in:

- Expanding our offering on the Open Data Portal to encompass Data Assets required by our supply chain and wider energy industry and other utilities.
- Digital interface for visualisation and simulation of energy transition scenarios in support of development of local authorities, government and regulatory net zero plans and strategies.
- Digital interface for assessing climate risk and impact of climate scenarios on our network to support development of resilience plans and strategies.
- Digital solution for our Asset Investment team to mature data driven cost and impact analysis of investment options on our network and customers.
- Collaborate with Ofgem to modernise and digitalise our Regulatory Reporting process.
- Continue development of the digital platform for leakage analytics.

# Open Data Investment Roadmap

RIIO-3 Start

FY 25/26

FY 26/27

FY 27/28

FY 28/29

RIIO-3 Yr 4+

 Cadent Data Assets on Open Data Portal

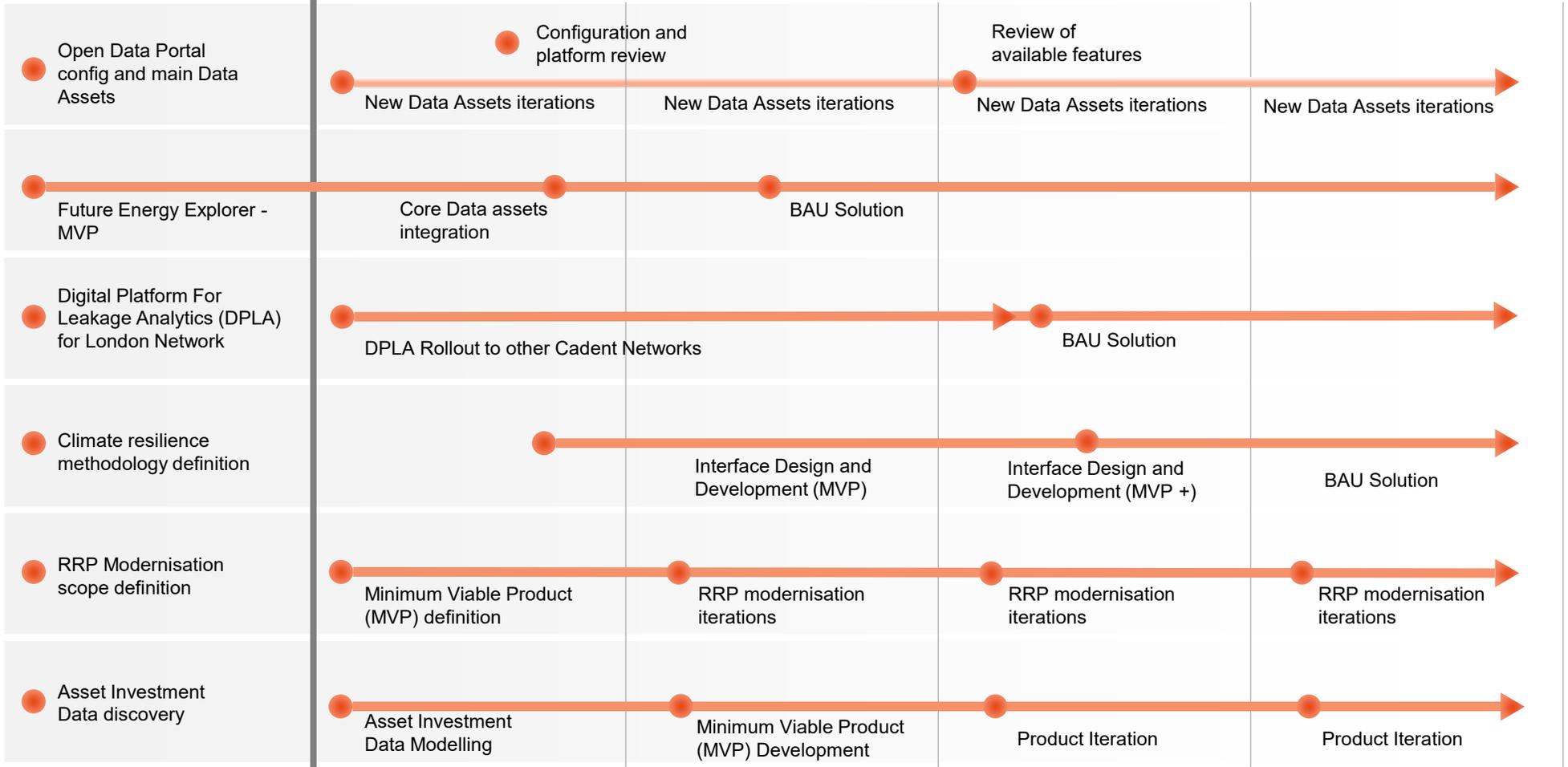
 Whole system scenarios solution

 Leakage detection and management

 Climate resilience digital interface

 RRP Modernisation

 Asset Investment Portfolio Management



# Managing Delivery of our Digitalisation Strategy

We have established governance, operating model and behaviours to deliver our Digitalisation Strategy

## How we govern and develop our strategy:

Our Board recognise the enabling role of digitalisation for our organisation and our Stakeholders. We are providing twice-annual updates on our progress and outcomes included in our Digitalisation Strategy and Action Plan (DSAP).

Twice a year we provide an update to our Executive Team to ensure transparency and visibility of the delivery of our commitments and signposting any major changes in execution of our plans.

This broad senior level sponsorship is possible through aligning the digital enablers (formulated within our Digitalisation Strategy) directly to outcomes and commitments within our business plan.

We also understand the value of external benchmarks and opinions to challenge and build upon our Digitalisation Strategy. We work alongside our work strategic partners who support benchmarking our capability, as well as welcoming input from Stakeholders and the Customer Challenge Group to shape our Digitalisation Strategy.

## How we ensure we deliver our digital investments:

Digitalisation is now a consideration more broadly across activity within Cadent, with numerous committees now focusses on delivering for the challenges set for the sector in RIIO-3.

Expert groups such as the Future Network Committee focus on ensuring that a data-driven approach is taken to deliver meaningful change. Others such as Gas Data & Digitalisation Collaboration Group promote interoperability and efficiency of solutions across the gas networks, providing a solid foundation supporting further developments.

Our Digital Delivery department has developed a new methodology to optimise delivery of digital capabilities. This approach puts a strong emphasis on planned delivery of key milestones, with excellent visibility of possible dependencies and close monitoring of resource and activity.

Our RIIO-2 investments closed strongly, creating a solid foundation for the delivery of RIIO-3 activities. With the increase in whole of sector solutions, the complexity and interdependence of key outputs and the management of meeting challenging timescales has only increased.

## Ensuring data supports our Digitalisation Strategy:

Our Data and Digitalisation Team places significant value in data governance. It aims to reduce data risk, embed the value of data within our culture and establish leading data management practice, including adoption of the Data Best Practice Principles..

Our approach to data governance is described within our Information Management Framework, owned by Head of Data & Analytics.

This document and associated standards further embed the Presumed Open principle at Cadent and standardise the approach to Data Triage and data sharing, fully aligned with Digital Risk and Security principles.

We are committed to grow our data culture and recognise the need to embrace new behaviours and skills required to embrace digital thinking. We work with nominated Data Owners and Data Stewards across our organisation to evolve organisational maturity, measure our progress on annual basis and shape priorities.

# 5

## Open to You

# Open to You

Being open and transparent is part of our culture, we would welcome hearing from our customers and communities to improve the value we deliver.  
Your comments and suggestions on our Strategy are valued.

There are multiple ways you can engage with us and share your views and comments



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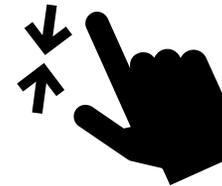
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