

# Innovation culture: There's no stopping you

---

Challenging mindsets to accelerate innovation within the energy networks sector and other regulated industries

---

**Bringing  
Ingenuity  
to Life.**

---

# Contents

---

Mindset myth-busting	4
Introduction: Challenging mindsets	6
The myth   The reality	8
→ Innovation culture exemplar: Network culture	12
→ Innovation culture exemplar: Industry culture	24
Conclusion: Key actions	26
Project background and stakeholder engagement	30
Get in touch	31

# Mindset myth-busting

1

2

3

The myth →

Innovation has nothing to do with culture

We don't need to improve our innovation culture

It's all about getting the regulation right and having the right incentives

The reality →

Culture is a major factor in driving innovation

There are exciting improvement opportunities that can make a real difference

Opportunities in areas unaffected by regulation should be addressed alongside regulatory change

→ See page 8

→ See page 10

→ See page 14

# 4

Providing a safe, reliable service opposes a strong innovation culture

Operational excellence and innovation can work hand in hand, provided constraints are considered

→ See page 16

# 5

Culture is too abstract and tackling it is too hard

The building blocks of a successful innovation culture are known and can be shaped with conscious and consistent efforts

→ See page 18

# 6

We have an innovation team; there is no need for wider cultural change

To transform, teams across the business must be committed and proactive in innovation

→ See page 20

# 7

Improving innovation culture within individual organisations is enough

The scale of the net zero challenge requires an industry-wide innovation culture

→ See page 22

There's no stopping you systematically  
enhancing innovation culture to support the  
transformations required to meet net zero.

# Challenging mindsets

In this report we challenge the mindsets that are potentially limiting individual organisations and wider industry from enhancing innovation culture, and describe what an exemplar innovation culture that enables the journey to net zero looks like. The report is based on findings from a project commissioned by UKRI, in collaboration with Ofgem and participating energy networks.

This report is a condensed summary of the full project report, which contains more detail on the case for change, the innovation culture exemplar, outputs of the base-lining activity, and case studies for ideas and inspiration.

While focused on energy networks, we expect that the findings will resonate with other regulated sectors including, but not limited to, water, transport, and nuclear.

## Culture

The underlying assumptions, values, and beliefs in an organisation, which are manifested in people's behaviours and the way things get done.

## Innovation

We define innovation as “ideas successfully applied, that realise value” through experimentation and learning. This encompasses value from learning and from achieving successful outcomes.

*Within the context of network innovation, this includes both Ofgem-funded innovation projects and wider innovation activity undertaken outside of this funding.*

THE MYTH →

# 1 Innovation has nothing to do with culture →

There is widespread evidence supporting the link between culture and innovation. Building on this, through interviews with networks and external stakeholders, this work has demonstrated the connection between four key innovation challenges for energy networks and cultural impediments. Addressing these key innovation challenges is vital in supporting the transformation required by energy networks to deliver safe, reliable, and affordable energy while cost-effectively supporting the transition to net zero.

There has been an increase and evolution in the type, complexity, and scale of innovation carried out by energy networks since Ofgem introduced the first innovation stimulus funding nearly two decades ago. The good progress made to date, which is recognised internationally, has been supported by the organic evolution of innovation culture within energy networks. Achievement of net zero ambitions is expected to require a significant increase in innovation and whole system thinking – requiring a specific focus on enhancing innovation culture to enable this.

As an innovation-focused consultancy we know first-hand the importance of culture in supporting innovation, and our innovation research involving hundreds of international leaders and organisations from a wide range of sectors further highlights this.

Our recognition of the importance of culture in supporting innovation is shared by many others, with well-respected academics and thought leaders also exploring this key link, and companies who have unlocked the potential of innovation crediting the role culture has played. This includes a UK utility who conducted a five-year cultural improvement programme focused on developing the leadership standards and behaviours required to create an environment that fosters innovation, leading to, among other benefits, a 66 percent increase in productivity.

PA REPORTS →



Leaders should invest in **cultures of experimentation** to spark creativity and realise the organisational growth benefits of innovation.



**Two of three** steps that leaders should follow to unlock organisational **innovation focus on culture**.



**Creating an innovation culture is a key area** of focus, with changes to the way people lead, work, and are rewarded.



THE REALITY →

# → Culture is a major factor in driving innovation

---

**Four key innovation challenges** - all with clear links to culture:



## 1. Transitioning innovation to business as usual

Cultural factors:

- Level of focus
- Dynamic between innovation team and wider business
- Resource capacity.



## 2. Speed of innovation

Cultural factors:

- Openness to change
- Level of sponsorship
- Governance and processes.



## 3. Need for even more collaboration

Cultural factors:

- Competitive tensions
- Cultural differences (e.g. with innovators)
- Relationships across industry.



## 4. Constrained innovation ambition

Cultural factors:

- Perceived views on acceptance of 'failure'
- Diversity and future skillsets
- Time and space to think creatively.

THE MYTH →

# 2 We don't need to improve our innovation culture →

Without focused reflection, it is typical to initially assume that there isn't a need to change and that the current innovation culture that has helped to drive innovation to date is enough. With dedicated innovation teams and lots of exciting innovation projects underway it may be easy to believe that there is a strong innovation culture in place – but the innovation culture exemplar developed (see pages 12-13) demonstrates the opportunity to go much deeper. Self-assessment against the exemplar identifies improvements across all individual organisations and across the wider industry to support net zero.

If, on first reading this, you do not think there is a need to change – you are not alone. The majority of network survey respondents in the discovery phase initially held the view that there isn't a need to change innovation culture. However, later in the same discovery survey, 90 percent stated that culture inhibits the innovation required to meet net zero. This suggests that deep down there is recognition of the need to change.

In considering what change is required it is important to understand the required end-state and where you are now. The innovation culture exemplar developed describes this end-state. It incorporates findings from the discovery phase on the four key innovation challenges, with insights from further interviews, and wider knowledge and experience around innovation culture.

Participating networks surveyed employees from across their organisations to self-assess the level of current alignment with the exemplar. Findings from this baselining survey indicate that alignment with the exemplar is generally 'moderate' or 'partial', with opportunities for all organisations and the wider industry to collectively improve. While there are some limitations around the use of self-ratings, including around comparison, the baselining provides a useful indication for networks and the industry around areas of focus.

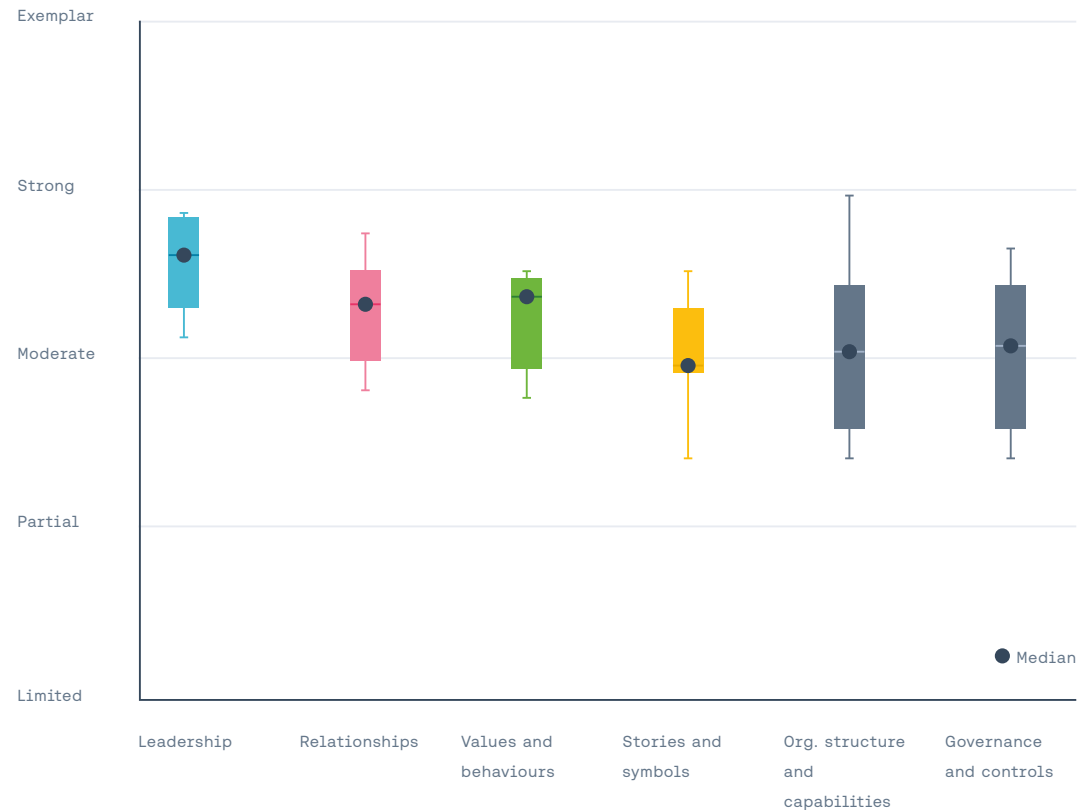
In the majority of areas of the exemplar, all networks self-assessed themselves as 'moderately' or 'partially' aligned.

Network views on industry dimensions of culture are that these are all either 'moderately' or 'partially' aligned with the exemplar.

There is variance between networks, both in terms of general views of alignment and relative ratings of individual areas, with each having different areas of stronger or weaker alignment.

THE REALITY →

# → There are exciting improvement opportunities that can make a real difference



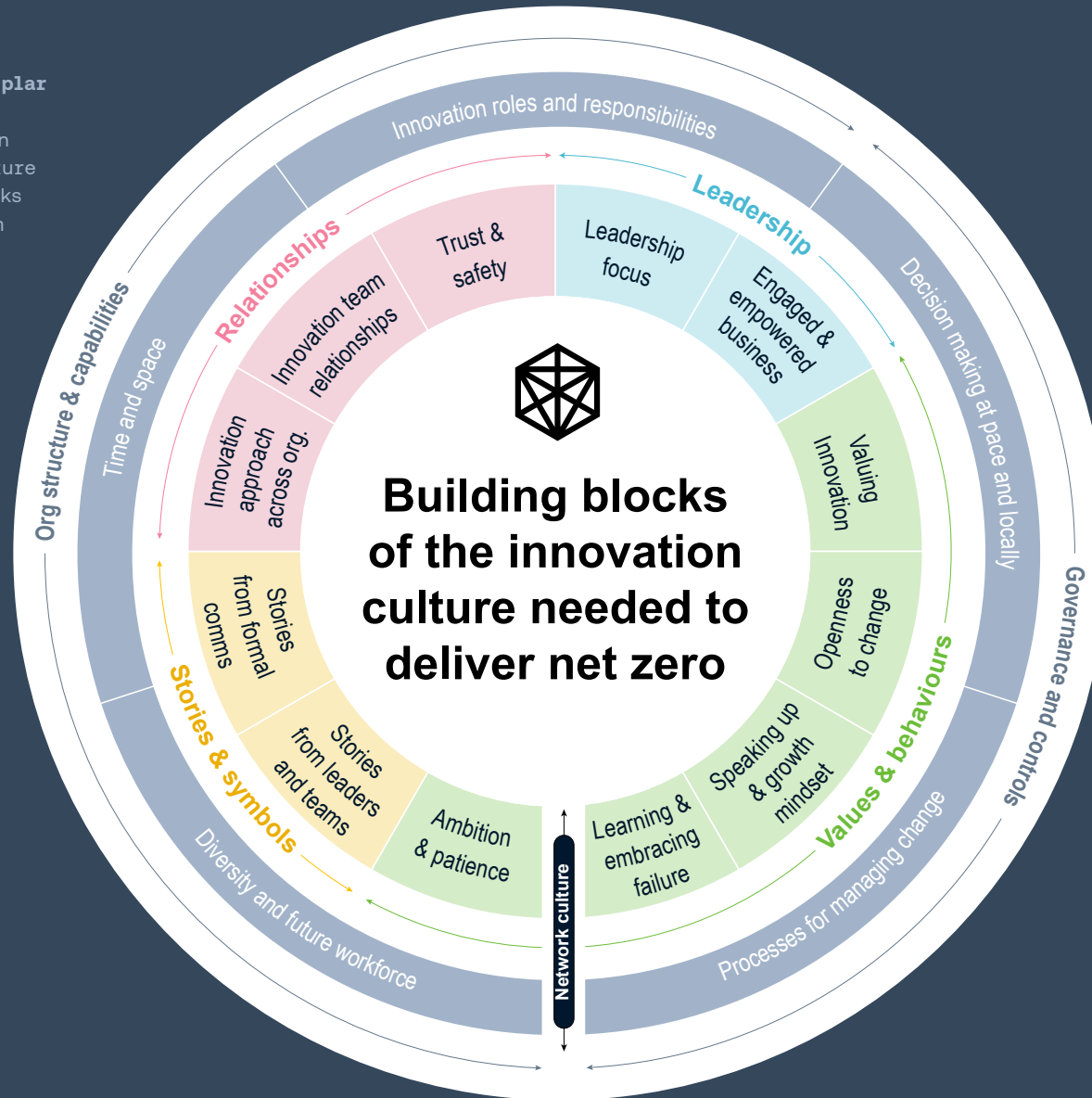
## There is opportunity to improve

The graph shows the variance in the self-assessment of individual participating networks for each dimension overall, showing all networks have opportunities to improve against the exemplar.

Across the sub-dimensions (building blocks of the exemplar) there is greater variance in the range of self-assessment but these are still typically 'moderate' or 'partial' alignment, and there are only six sub-dimensions where any individual networks self-assessed themselves as 'strong'.

**Innovation culture exemplar**

The building blocks of an exemplar innovation culture within individual networks are shown in the diagram and stated adjacent.



→ See the full report for more detail on each area of the exemplar

# Innovation culture exemplar: Network culture

## ● Leadership

**Leadership focus:** Leaders across the business have a strong, consistent focus on innovation across the entire innovation process (from ideas to adoption) in supporting net zero outcomes.

**Engaged and empowered business:** Senior leaders effectively drive the engagement of all parts of the business around the need for innovation, and enable and empower the business to support this need.

## ● Relationships

**Trust and safety:** High degrees of trust exist between teams, and they feel safe to share ideas, opinions, and learnings.

**Innovation team relationships:** Strong and extensive relationships exist between innovation support teams and teams across the wider business, with effective engagement underpinned by clear roles and responsibilities.

**Innovation approach across organisation:** Teams across the business are committed to innovation, and know how and when to engage innovation support teams.

## ● Stories and symbols

**Stories from formal comms:** Leaders and teams regularly share a range of formal and informal innovation-related stories that support a common understanding of what is meant by innovation.

**Stories from leaders and teams:** The style and tone of corporate communications reflect the strong strategic commitment to innovation.

## ● Values and behaviours

**Valuing innovation:** The importance of innovation is understood and valued by teams across the business.

**Openness to change:** Risk management is appropriately balanced with an openness to change and embracing new ideas.

**Speaking up and growth mindset:** Individuals feel comfortable speaking up, and explore new and different ideas with a growth mindset.

**Learning and embracing failure:** 'Failure' of innovation is embraced, particularly in exploratory research and development, and learnings are captured to inform the progress of innovation.

**Ambition and patience:** Innovation efforts are balanced across short-, mid- and long-term time horizons, with a clear link to the future net zero vision and the biggest challenges faced.

## ● Organisational structure and capabilities

**Innovation-related roles and responsibilities:** Clearly agreed and understood across all areas of the business.

**Time and space:** Individuals and teams have space to think creatively, time to support development and roll-out of innovation, and time to collaborate and explore new ideas.

**Diversity and future workforce:** Talent is comprised of diverse perspectives and mindsets, and talent management and planning is informed by the level and direction of innovation challenges.

## ● Governance and controls

**Process for managing change:** Processes across all parts of the organisation are aligned to innovation goals and supportive of innovation efforts.

**Decision making at pace and locally:** Governance supports effective decision making at pace, and teams are empowered to make decisions locally on the selection and management of innovation effort.

THE MYTH →

# 3 It's all about getting the regulation right and having the right incentives →

Regulation inherently has a strong impact on shaping the priorities and behaviours of regulated companies. However, we have identified that regulation does not impact two thirds of the network-led areas of innovation culture described in the exemplar. Self-assessments show similar ratings in areas impacted by regulation as those not impacted; this reinforces the case that there are opportunities beyond regulatory change to drive the innovation culture that will enable net zero.

It is important to acknowledge the positive impact that regulation has had in stimulating and supporting innovation. In particular, the provision of annual innovation allowances, which has incentivised the evolution of innovation culture to date; and also through the complementary role of competitive funding.

Ofgem and the energy networks will need to work closer together to explore how regulation can further support and influence the innovation culture needed to meet net zero, alongside a focus on enhancing innovation culture in areas not impacted by regulation. Other areas of culture described in the exemplar support this requirement, including the relationship between Ofgem and networks, and behaviours related to speaking up and exploring industry challenges. Joint sessions initiated as part of this work demonstrate positive steps in this area. Building on this and creating a 'safe space' where Ofgem and networks can work together as co-equals will help to facilitate the changes needed.

“

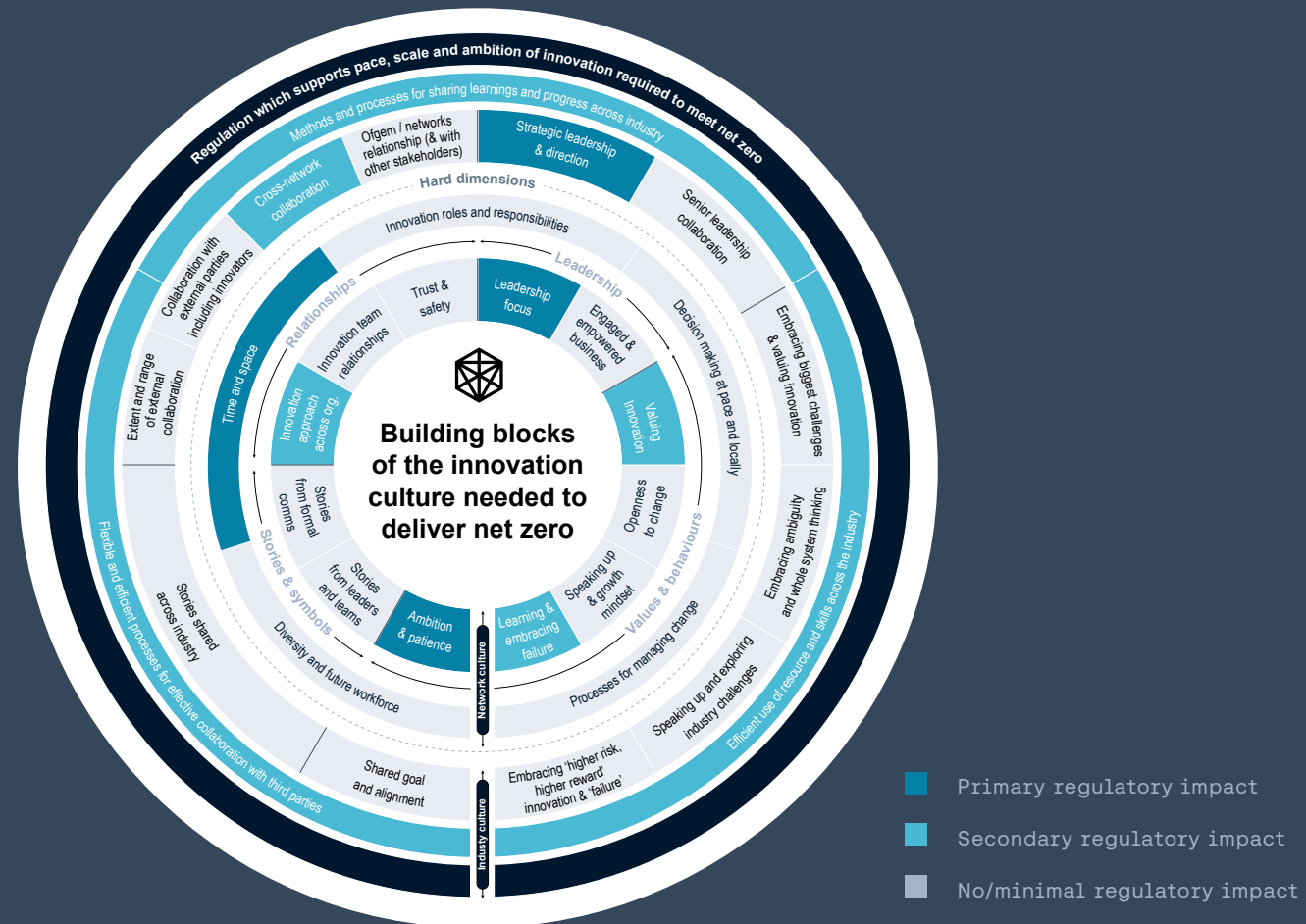
**To reach net zero we need to regulate in a way that best supports innovative, dynamic cultures within networks so that they can move quickly to identify, test and then scale out the right innovations.**

**Marzia Zafar**

Ofgem Deputy Director,  
Digitilisation, Decentralisation  
and Innovation

THE REALITY →

# → Opportunities in areas unaffected by regulation should be addressed alongside regulatory change



THE MYTH →

# 4

## Providing a safe, reliable service opposes a strong innovation culture →

The 'operational excellence' focus of the energy networks sector is vital in delivering the safe, reliable service that we all depend on, and innovation can play a key role in supporting these outcomes. While it is feasible to cultivate a strong innovation culture alongside maintaining an emphasis on operational excellence, there are constraints. The innovation culture exemplar, which has been developed with input from participating networks and external stakeholders, specifically considers these.

A key question raised by both network and external stakeholders was what a '10 out of 10' innovation culture looks like in the context of delivering a safe, reliable service. The 'Value Disciplines' concept (see right) supports the view that it's not realistic for networks that are focused on 'operational excellence' to employ the same innovation culture as frequently referenced product leaders like Tesla and Apple, but that there is scope to strengthen innovation culture.

A culture of experimentation, embracing and learning from 'failure', and readily exploring new ideas are important in supporting innovation. These values and behaviours are not inherent within delivery-focused organisations, particularly within a safety-conscious industry, where processes and a low tolerance to risk are key attributes to delivering operational excellence.

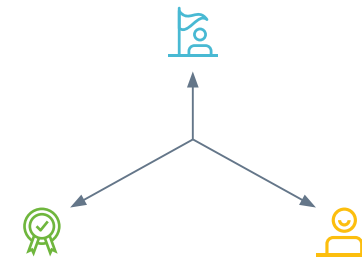
There is, however, more that can be done to support innovation – even within these perceived constraints. For one, there is a need to balance risk management with an openness to change, and to get comfortable discussing failure and importantly learning from this. As described by academic Amy Edmondson, there is the need to distinguish between different types of failure; to reduce simple failures (i.e. mistakes), anticipate and mitigate complex failures (i.e. accidents) and promote intelligent failures (i.e. discoveries), and importantly learn from all types.<sup>1</sup> Psychological safety, such an important ingredient in high-performing organisations, can help in enabling discussions around failure and exploring risks.

### Value Disciplines concept<sup>2</sup>

#### Product leadership

- Offers leading-edge products/services
- Focused on speed, innovation, and time to market
- Experimental, 'out of the box' mindset

Brand examples: Apple and Tesla



#### Operational excellence

- Reliable product/service
- Built on standard, no-frills, fixed assets
- Disciplined teamwork
- Process focused

Brand examples:  
Ocado and Toyota

#### Customer intimacy

- Offerings tailored to customer demands
- Collaborative solution development with customers

Brand examples:  
John Lewis and Goldman Sachs



THE REALITY →

# → Operational excellence and innovation can work hand in hand, provided constraints are considered

CASE STORY →

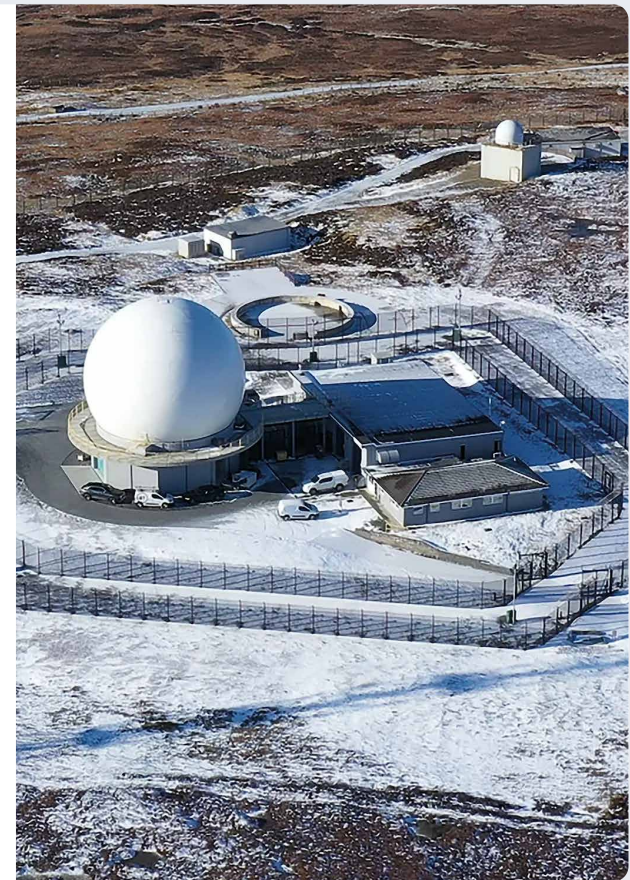
## Enhancing psychological safety in a cross-organisational team through focused efforts

HYDRA is a Ministry of Defence led team focused on creating new, modern infrastructure across radar sites, bringing together staff from different organisations with mixed experience across defence, security, and construction. The HYDRA leaders engaged our experts to help them to better understand the concept of psychological safety, what was contributing and inhibiting it within the HYDRA team, and how it could be enhanced. Our experts helped to build a shared understanding of how team members' strengths impacted team dynamics and roles.

We developed a menu of interventions, to build on existing success, for the team to choose from. This included the development of a team charter that captures and amplifies the team's strengths and ensures that the best aspects of culture could endure changes in personnel. Talking about failure and worst-case scenarios was a sensitive topic for the team, and by building up trust difficult conversations could be opened up.

Encouraging a deference to expertise rather than hierarchy helped to bridge the cultural divide between teams, as well as promoting an environment of psychological safety. Leaders play a critical role in creating the conditions that ensure psychological safety can work, and our team supported this through opt-in one-to-one coaching. As a result of the work HYDRA saw real change in leadership behaviours, thanks to high levels of trust and positive relationships. This included changes in how leaders responded to bad news, freeing the team up to share more honestly and helping build resilience.

The HYDRA programme lead stated: "Having expert advice has been critical. Psychological safety isn't something you can read a book on; it needs an objective set of professionals who are experienced and knowledgeable about the subject to assess where you and your team are, to tell you where you need to go."



THE MYTH →

# 5 Culture is too abstract and tackling it is too hard →

Culture can often be described as 'intangible' because it is challenging to define and quantify, and difficult to change. While these features are true, articulating the different aspects of culture can help to make it seem less abstract. A shared framework can support common understanding and allow culture to be discussed more concretely. The innovation culture exemplar provides this shared framework.

When most people think of culture they think about the 'softer' aspects of culture, but culture is systemic and within an organisation there are both 'hard' and 'soft' dimensions that influence people's mindsets and behaviours. The innovation culture exemplar covers both, highlighting those cultural dimensions that were found to be most important in the context of the four innovation challenges.

While shaping culture can indeed be complex and take a long time to change mindsets and behaviours, which are often deeply engrained, change is possible. From our experience working with clients across industry sectors, it requires conscious and consistent focus and a strong commitment from leadership.

## Culture is shaped by history

Culture is influenced by the collective memory of an organisation and is unique. It is deep rooted and can take time and energy to change.

## It is influenced by leaders

The cultural tone is created by leaders. How leaders spend their time and how they behave will be noticed and followed.

## It is human-centric

Culture is a complex, adaptive system made up of individuals and their beliefs, values, and behaviours. It is difficult to observe.

THE REALITY →

# → The building blocks of a successful innovation culture are known and can be shaped with conscious and consistent efforts

CASE STORY →

## Accelerating innovation through focus on 'hard' and 'soft' aspects of culture

To meet evolving demand from rail users today and in the near term, there is a need for Network Rail to find innovative ways to manage and maintain the network – but the nature of the organisation makes this challenging. It's a complex amalgamation of different routes and regions, highly regulated and safety critical, dependent on systems and processes that have built up over many years, and with innovation delivered alongside operational roles. This combination of characteristics restricts organisational agility and makes delivering new ideas into the business a long process.

We have been working with Network Rail over a five-year programme to address many of these challenges and accelerate the delivery of new ideas into operations, supporting both 'hard' and 'soft' aspects of innovation culture.

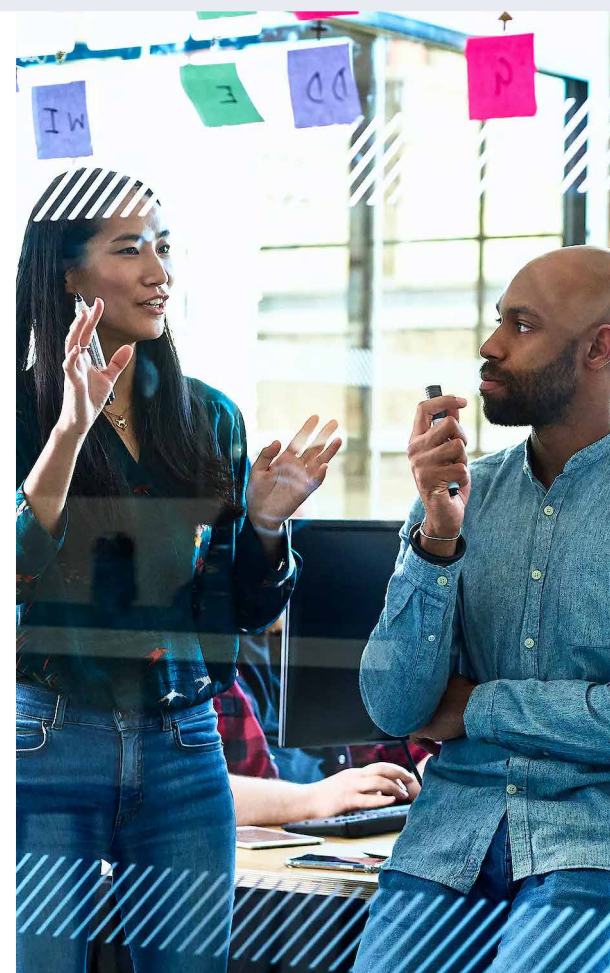
This included co-creating a five-stage delivery framework that covers everything from how to source and assess new ideas, how to prioritise them for delivery, and how to enable the adoption of successful innovations at scale to realise benefits.

A new framework for analysing projects and assessing benefits was developed alongside a tool and dashboard. This supported rapid business case development and portfolio assessment and prioritisation, as well as aiding engagement across the business.

Bespoke governance was created for high-value projects based on elements of agile methodology. The build of agile culture has been deliberately gradual and focused on what it means within Network Rail. Our support included 'training the trainer', and helping create communities of practice.

Embracing a culture of innovation involves an openness to new ways of working. Our experts supported in helping to shift mindsets across the business to support the adoption and scaling of innovation, which was achieved through coaching with operational teams and helping to work through blockers.

The changes introduced led to a 75 percent reduction in time to deployment for innovations and an 83 percent reduction in time to make decisions around innovations. PA and Network Rail won the APM 'Innovation in Project Management Award'.



THE MYTH →

6

# We have an innovation team; there is no need for wider cultural change →

Innovation teams play an important role in driving innovation, particularly early-stage research and development, but without the support of the wider business there can be challenges related to the speed, effectiveness, and level of adoption of innovative solutions. To deliver the transformation required, teams across the business need to be proactive in finding solutions to everyday challenges and considering ideas within their sphere of influence to future strategic challenges. While the 'engine' for innovation might sit within and be driven by a dedicated team, there is a need for the whole business to understand and act on their role.

The question of whether there is a place for an innovation team in an exemplary culture of innovation has been a subject of much debate. Some argue that there would be no need for an innovation team if innovation was fully embraced. However, the same could be argued for learning and development and customer service teams, which are generally well-accepted. It is expected that the role of innovation teams will evolve as innovation is increasingly embraced by everyone, but that there would still be a role for some form of innovation support team.

In considering the role of innovation teams, stakeholder interviews identified two key aspects relating to diversity and team dynamics. First, it is important that diversity is not just applied to a single function and goes beyond this. Second, while progress is being made there is benefit in blended innovation teams incorporating individuals with tactical experience from the wider business, and existing trusted relationships.

Value of innovation support teams, even where innovation is widely embraced across the business:

- Provide specialist innovation knowledge and experience/act as centre of excellence
- Support in developing business cases and the admin associated with innovation e.g. funding applications
- Manage processes and governance
- Support development of strategic vision and direction
- Support for innovators, including helping to navigate the business
- Act as primary liaison with academia and research organisations
- Coordinate learning
- Focus on emerging research and development, and lower technology readiness level innovation
- Provide dedicated focus to build momentum
- Manage innovation projects where there are capacity constraints.

## THE REALITY →

# → To transform, teams across the business must be committed and proactive in innovation

There is no 'one-size-fits-all' approach to enhancing innovation culture, with the need for tailored and thoughtful consideration taking into account the existing culture and how this has evolved over time. Case studies from international and UK utilities, and from other sectors, can however provide ideas and inspiration, including around driving support for innovation across the business.

Employees across business with reputation for being innovative selected to join innovation team

Encouraging idea generation through incentives and recognition

Creating excitement around innovation through an innovation festival

Optional secondment to innovation team seen as notable achievement

Idea generation scheme involving crowd-based peer review

Strong focus on valuing the views of individuals as part of conscious, consistent efforts to enhance innovation and wider culture

Nominated network of innovation champions, with role regarded as an accolade

Training teams across the business on innovation and design thinking

Use of story-telling to engage organisation around innovation

- Relationships
- Values and behaviours
- Leadership
- Stories and symbols



THE MYTH →

# 7 Improving innovation culture within individual networks is enough →

Networks have a vital role in helping to explore and address the significant challenges associated with reducing power sector emissions and enabling the reduction of emissions in other sectors, including transport and heat. Given the scale of the net zero challenge this cannot be achieved in isolation. There is a need for collaboration and a whole system approach, including working across traditional network divides and engaging with the wider energy ecosystem.

Looking inwards and focusing on enhancing the innovation culture within individual organisations is not enough. Responsibility for the response to net zero is shared, including by networks and the regulator. There is a need to look outwards and focus on how the culture across the industry can best support this. The exemplar specifically considers innovation culture both within individual networks and across the industry.

The views of participating networks indicate that the various areas of industry culture described are only 'moderately' or 'partially' aligned with the exemplar. There is a need for Ofgem, networks, and other key industry stakeholders to further reflect on how the industry innovation culture compares with the exemplar – and to work together to agree actions to drive change. This includes in relation to supporting 'higher-risk, higher-reward' innovation, ensuring competitive behaviour driven by regulation is bounded and does not unnecessarily inhibit collaboration, and making efficient use of resources and skills across the industry.

“

There are some significant challenges ahead, and the only way see net zero being achieved is through more genuine collaboration across the industry.

“

Across the industry there needs to be a stronger joint understanding that we are all working towards the same challenge.

“

We need a shift in culture across the industry about getting comfortable making decisions under uncertainty.

“

If I could change one thing about innovation culture across the industry it would be views on success and 'failure'.

“

Workforce shortages are not a quick fix. We need to leverage resources across the industry and collaborate more.

Selection of quotes from stakeholder interviews

THE REALITY →

# → The scale of the net zero challenge requires an industry-wide innovation culture

CASE STORY →

## Creation of a design collective with benefits around efficient innovation efforts

PulPac is the company behind the pioneering technology Dry Molded Fiber, which has been invented to help remove single use plastics from the packaging ecosystem. We are the exclusive front-end developers of this technology and charged with pushing it into new spaces and unlocking some of the world's bigger packaging issues. One such issue is inventing a 'paper pulp' bottle capable of scaling to billions of units and hitting price points in line with the material costs it's replacing, all while being far more sustainable.

To approach this challenge, we have built a 'Collective' structure, bringing together multiple brand partners at the same time around the same challenge. The R&D effort needed to take this technology to a fully automated demonstrator line is too big an investment for any single partner. Splitting the investment amongst multiple partners allows them to share the cost and risk, and benefit from the R&D outputs for only a fraction of the investment. To maintain each partner's unique 'reasons to succeed', each brand partner gets to own first-market advantage for their key market segment.

Companies involved in the collective benefit from accelerated learning, and there is a focus on ensuring that the output works for each partner's ethos and needs. We believe that the future of driving speed and scale in innovation to make a real difference is by unlocking industry collaboration.

“

The collectives are the perfect sustainable innovation ground, we can jointly tackle the big challenges in moving from plastic, while getting a first mover advantage – the genius is that doing this for just one client would hide this tech away for many years, the collectives really are the future of sustainability led innovation.

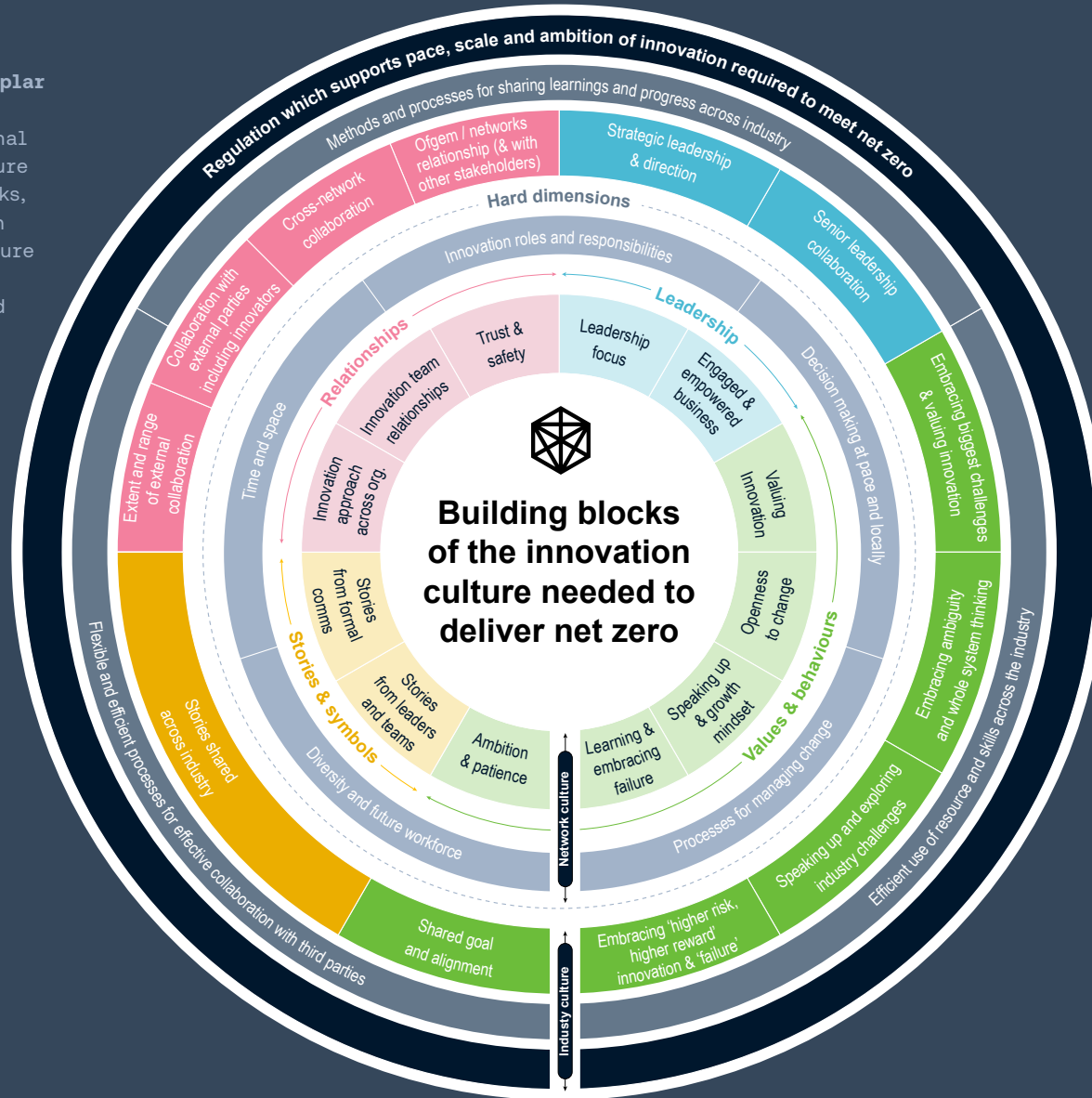
**Alex Orchard**

Global Head of Packaging for Haleon  
(brands included Sensodyne and Panadol)



**Innovation culture exemplar**

Expanding upon an internal focus on innovation culture within individual networks, the building blocks of an exemplar innovation culture across the industry are shown in the diagram and stated adjacent.



→ See the full report for more detail on each area of the exemplar



# Innovation culture exemplar: Industry culture

## ● Leadership

**Strategic leadership and direction:** Strategic leadership, including across government, Ofgem, and the FSO, helps set the direction for networks, with networks inputting into this and providing strategic direction to innovators.

**Senior leadership collaboration:** Senior leaders across networks, including CEOs, pro-actively work together to address the shared challenge of net zero, and promote strong cross-network collaboration on innovation.

## ● Relationships

**Cross-network collaboration:** Extensive and effective collaboration takes place between networks, within and across traditional boundaries (e.g. transmission and distribution, electricity and gas).

**Collaboration with external parties including innovators:** Strong importance is placed on collaboration with external parties, including innovators, and effective relationships and partnerships are readily formed.

**Extent and range of external collaboration:** Wide-ranging and extensive external collaboration takes place, beyond the networks sector and internationally.

**Ofgem/networks relationship (and with other stakeholders):** Relationship between Ofgem and networks is underpinned by mutual trust, understanding, and respect. This dynamic is extended to wider relationships between networks and Ofgem, and other industry stakeholders within the innovation ecosystem.

## ● Values and behaviours

**Embracing biggest challenges and valuing innovation:** The biggest challenges facing the industry in the short- and long-term are embraced, with the importance of innovation in solving these widely understood and valued, including by all networks and Ofgem.

**Embracing ambiguity and whole system thinking:** Uncertainty and ambiguity of net zero challenge is readily accepted and whole-system thinking is widely embraced.

**Speaking up and exploring industry challenges:** Networks feel comfortable speaking up and exploring challenges in relation to innovation and net zero outcomes, and engage Ofgem as a supportive partner in these discussions.

**Embracing 'higher risk, higher reward' innovation and 'failure':** Higher risk, higher reward innovation is encouraged across industry, with 'failure' of innovation embraced and learnings widely shared.

**Shared goal and alignment:** Joint understanding across industry that working together towards a shared goal, with alignment of objectives of individual stakeholders.

## ● Stories and symbols

**Stories shared across industry:** Sharing of stories across the industry supports visibility of innovation success, reflects the strong commitment to joint projects and partnerships, and contributes to the development of relationships.

## ● Organisational structure and capabilities

Efficient approaches to collaboration make best use of resource and skillsets across the industry.

## ● Governance and controls

Clear and effective methods and processes for sharing learnings and progress enable industry collaboration.

Flexible and efficient processes facilitate effective collaboration between networks and third parties.

Regulation strongly supports the pace, scale, and ambition of innovation required to meet net zero.

To move forward as an industry, there is a need to unite around a shared purpose and goal, for leaders to challenge themselves to do things differently to support change, and for there to be a renewed focus on strengthening relationships and creating the environment that supports open and honest discussions about industry challenges.

# Key actions

From our work with UKRI, networks, and Ofgem, it's clear there is no stopping you when it comes to what is possible in embedding and enhancing innovation culture. So, what does that mean in practice?

While we have shown there are focus areas to move the industry forward, what does this mean for individual organisations contributing to the sector?

There are specific actions within the control of each organisation as shown throughout this document, the case studies, and the rest of our work. These are:

1. Be clear on the importance of innovation and bring to life the required mindsets and behaviours
2. Define the incentives and systems to encourage innovation
3. Lean into the innovation and operational excellence paradox
4. Build on and amplify success
5. Reinforce the message from the top; actions speak louder than words
6. Reflect and act on the specific areas of opportunity for your organisation
7. Embrace the task of driving change across the industry through collaboration.

## Actions for other organisations, including Ofgem

The actions are expanded on in the context of network organisations on the next page. At a higher level these also hold true for other organisations across the industry, including Ofgem, with a need to focus on challenging the ways of doing things to support the transformation required to meet net zero. For Ofgem this means reflecting on how internal culture can support new ways of thinking, and focusing on how regulation can further support and influence the innovation culture within and across energy networks.

Actions for networks:

1

**Be clear on the importance of innovation and bring to life the required mindsets and behaviours**

In this report we have highlighted some of the vital mindsets and behaviours, from learning from failure, through to being curious and experimenting. Be clear what this looks like from a behavioural perspective; the evidence suggests that behaving your way into new thinking is fundamentally important. The detail within the exemplar gives suggestions around indicative behaviours.

2

**Define the incentives and systems to encourage innovation**

Find ways to encourage and promote innovation, be it through awards and recognition for teams and individuals, holding 'mad ideas' hackathons, or rolling out training and development schemes. All of this visibly demonstrates a commitment that will help colleagues to understand the value of innovation and actively participate in innovative efforts. The detail within the exemplar and the case studies helps to give inspiration and ideas.

3

**Lean into the innovation and operational excellence paradox**

Embrace the paradox of innovating in an environment focused on operational excellence. The detail within the exemplar explores the specifics of innovation culture within this context, particularly within the dimensions of values and behaviours, and relationships. Creating psychologically safe spaces where questions, challenges, and constraints can be fully explored, and therefore risks managed safely, is essential.

4

**Build on and amplify success**

It can be tempting to leave innovation to one team, rather than seeing this team as an accelerator to supporting improvement opportunities across the business. Likewise, no one team has a monopoly on innovation, so see your innovation team as a hub to guide, support, and coordinate efforts. The detail within this report and within the relationships dimension of the exemplar helps to describe what an evolving role for innovation teams could look like.

5

### Reinforce the message from the top; actions speak louder than words

Leadership is a vital ingredient, not just in terms of communications. People will look to see what leaders do in practice, not just what they say but what they do – the budgets they provide, the processes they support, and the actions they take. All of these are important messages to the business. The detail within the leadership dimension of the exemplar gives more suggestions about the behaviours that support this, including the importance of empowering your people.

6

### Reflect and act on the specific areas of opportunity for your organisation

There is no ‘one-size-fits-all’ approach to enhancing innovation culture, with variation in existing cultures and different areas of strength and opportunity. To demonstrate this point the culture shaping action plans that participating networks are developing focus on different key areas based on the outputs of the self-assessment. Reflecting on the detail within the exemplar can help to identify the key specific focus areas for your organisation.

7

### Embrace the task of driving change across the industry through collaboration

The task of driving change across the industry is significant and may feel overwhelming or even impossible. This feeling is understandable with the task being too big for any one organisation to face alone. There is a need for organisations across the industry to lean into working collectively to drive the required change. A renewed focus on strengthening relationships and creating the environment that supports open and honest discussions is a key initial step. While you cannot control how other organisations respond to this challenge, how you lean in and embrace this challenge, and how you demonstrate the described behaviours, is within your control.



Working together,  
there is no  
stopping you

# Project background and stakeholder engagement

---

UKRI, in collaboration with Ofgem and supporting electricity and gas networks, appointed us to explore the role of innovation culture, within and across organisations, in supporting the transition to net zero. This included leading engagement with networks, Ofgem, and other external stakeholders, with input gathered through surveys and interviews.

**We would like to thank all stakeholders involved for their input.**

## Project stakeholders

- UK Research and Innovation (UKRI)
- Ofgem
- Electricity North West
- National Gas Transmission
- National Grid Electricity Distribution
- National Grid Electricity Transmission
- Northern Powergrid
- Scottish Power Energy Networks
- UK Power Networks
- Wales and West Utilities.

## External stakeholders interviewed

- Citizens Advice
- Electric Power Research Institute (EPRI)
- Electricity Supply Board (ESB)
- Energy Innovation Centre (EIC)
- Energy Networks Association (ENA)
- Energy Systems Catapult
- Northern Gas Networks
- Power Networks Demonstration Centre (PNDC)
- Regen
- Spring
- Supergen Energy Networks Hub
- Other anonymous stakeholders.

---

## Endnotes

- 1 'Right Kind of Wrong: The Science of Failing Well', Amy Edmondson, 2023
- 2 'The Discipline of Market Leaders: Choose Your Customers, Narrow Your Focus', Michael Treacy and Fred Wiersema, 2007

# Get in touch

---



**Conrad Thompson**  
Innovation expert  
[Conrad.Thompson@paconsulting.com](mailto:Conrad.Thompson@paconsulting.com)



**Angela Rotheram**  
Energy networks expert  
[Angela.Rotheram@paconsulting.com](mailto:Angela.Rotheram@paconsulting.com)



**Allan Boardman**  
Energy networks expert  
[Allan.Boardman@paconsulting.com](mailto:Allan.Boardman@paconsulting.com)



**Clare Roberts**  
Cultural change expert  
[Clare.Roberts@paconsulting.com](mailto:Clare.Roberts@paconsulting.com)



**Ashley Harshak**  
Cultural change expert  
[Ashley.Harshak@paconsulting.com](mailto:Ashley.Harshak@paconsulting.com)



**Rachel Carmen**  
Innovation culture expert  
[Rachel.Carmen@paconsulting.com](mailto:Rachel.Carmen@paconsulting.com)



**Tim Pope**  
Innovation expert  
[Tim.Pope@paconsulting.com](mailto:Tim.Pope@paconsulting.com)

To request the full report, please get in touch with [energy@paconsulting.com](mailto:energy@paconsulting.com)

## About PA

We believe in the power of ingenuity to build a positive human future.

As strategies, technologies, and innovation collide, we create opportunity from complexity.

Our diverse teams of experts combine innovative thinking and breakthrough technologies to progress further, faster. Our clients adapt and transform, and together we achieve enduring results.

We are over 4,000 strategists, innovators, designers, consultants, digital experts, scientists, engineers, and technologists. And we have deep expertise in consumer and manufacturing, defence and security, energy and utilities, financial services, government and public services, health and life sciences, and transport.

Our teams operate globally from offices across the UK, Ireland, US, Nordics, and Netherlands.

Discover more at [paconsulting.com](https://paconsulting.com) and connect with PA on [LinkedIn](#) and [Twitter](#).

**PA. Bringing Ingenuity to Life.**



### Corporate Headquarters

PA Consulting  
10 Bressenden Place  
London SW1E 5DN  
United Kingdom

+44 20 7730 9000

[paconsulting.com](https://paconsulting.com)

---

This document has been prepared by PA.  
The contents of this document do not constitute any form of commitment or recommendation on the part of PA at the date of their preparation.

© PA Knowledge Limited 2023.  
All rights reserved.

No part of this documentation may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise without the written permission of PA Consulting.

Produced by Design Studio at PA  
3\_339354 October 2023.