

Innovation Workshop Report



27th February 2019

together
we are
the network

Thank you



Thank you again to those of you who joined us for our innovation workshop.

Collaboration, diversity of views and innovation each go hand-in-hand, so I was incredibly grateful for the brilliant turn out that we had at this session and the range of voices and experience in the room.

Over the course of the day we got some wonderful feedback on the approach that NGN takes to innovation. I know that both my team and I came away feeling proud of what we've achieved working in partnership with you during RIIO1. But we're also acutely aware of the shared challenges we face to continue to deliver innovative solutions in the coming years. You gave us some fantastic ideas of how to work better with you to overcome these hurdles and, within this report, we've set out some of our initial responses to how we'll continue to evolve our approach in response to what you told us.

I'd love to hear about what you think of the event and our suggestions for next steps. This is just the start of what will be an ongoing conversation. Equally, if you were not able to join us on the day and would like to share your views it would be great to hear from you.

Best wishes

Richard Hynes-Cooper
Head of Innovation
Northern Gas Networks

Purpose of the workshop

As we prepare for our next regulatory period, Northern Gas Networks is taking the opportunity to refresh its strategic approach to innovation; from the way we work with our supply chain to our own internal processes for selecting and embedding innovative technologies across our network.

This workshop formed part of a series of stakeholder events looking at different aspects of our business including our social commitments, environmental performance, safety and reliability and the future role of gas. Reports on each of these workshops can be found at together.northerngasnetworks.co.uk

Our objectives for this session were to:

- Refresh our innovation strategy and our processes, informed by our stakeholder's views.
 - Develop our approach to funding innovation during the next regulatory price control period (RIIO2).
 - Consider new commercial models that reduce financial risk in developing new innovations.
- To do this, our stakeholders discussed four key questions:
- Why should we innovate?
 - What should NGN be focusing on with its innovation programmes?
 - How should innovation be funded?
 - How can we mitigate the risks of investing in innovation?

36

delegates – spanning national policy organisations to SME supply chain businesses

8.9

overall satisfaction with the event (out of 10)

Your feedback:

"good open discussion with input from broad range of company/suppliers."

"Profound insight into NGN innovation challenges and supply chain."

Acting on your feedback – our commitments

The feedback you gave us during this workshop is helping to shape the way we work both now and in the future:



What we'll do during the remainder of RIIO1:

- We know you want us to improve the way we communicate about the full range of benefits delivered through our innovation. So, we commit to holding an annual stakeholder innovation conference that showcases the work we have done throughout the year and the upcoming opportunities for collaboration. In addition to the showcase, you told us that you wanted to see a permanent forum within stakeholders could guide our innovation programme. So, we commit to expanding our Innovation Think Tank (our internal governance and assurance board for innovation) to external stakeholders to help guide our programme on a more regular basis.
- You provided us with some great insight into how our processes need to evolve to effectively deliver different scales of projects and establish accountability at the right levels to ensure alignment to business direction. In light of your feedback, we have redesigned our internal innovation process so that it allows us to get the right ideas into the business, take managed risks, create ownership at the right levels and support innovation from early concept stage right through to embedding into business as usual activity to ensure that forecasted benefits are delivered.

What we'll do during RIIO2:

The feedback we received during this workshop is driving the development of our business plan for our next regulatory period, 2021 – 2016. In particular, it's informing our Innovation Strategy within our plan.

Next steps:

We want to make sure that we continue to get it right and, to do that, we want to keep the conversation going.

Here's three opportunities to work more with us over the coming months. However, we welcome your ideas.

Come behind the scenes if you're interested in joining NGN's Think Tank – our internal board managing our innovation programme – please get in touch with us at innovation@northerngas.co.uk.

Tell us your views on our new business plan: During July 2019, we'll be publishing the key proposals for our RIIO2 business plan based on the feedback that you've given us so far. We'd love to hear your thoughts on whether we've got it right. The consultation will be available on together.northerngasnetworks.co.uk

Feedback on this session: Have further thoughts on some of the issues raised during this session? Or a great idea of things we should be doing in response to your feedback? Contact the team on innovation@northerngas.co.uk

Why should we innovate?

"You don't know what you don't know. So you've got to start off with an idea and see how you can develop it."



You told us that you firmly believe that NGN should continue with its current, effective innovation programme because this delivers a wide range of direct and indirect benefits to NGN, its customers and the wider gas network. In particular, you felt:

- Our innovations should be clearly focussed on the potential for cost savings and the benefits to customers such as savings on the bill, reduced customer disruption, environmental improvements or improved safety.
- Our innovation portfolio should support and deliver national policy (e.g. on reducing carbon emissions) where possible.
- That we should seek to control and maximise benefits from innovations that provide solutions to issues operational teams are facing.
- That our innovation activity should encourage and involve the supply chain in developing innovative solutions.
- That our innovation programmes should act as a catalyst for broader activity in the skills and workplace environment; by encouraging creative young people to choose a career in the gas industry creating a setting for universities and colleges to deliver courses and research to support the industry's needs.

When we asked what you felt should be the top 3 benefit drivers for NGN's innovation programme you voted:

- 1st:** To improve customer experience (80% of you voted)
2nd: To deliver services more efficiently (73%)
3rd: To decarbonise the energy system (53%)
4th: To develop whole system solutions (33%)



What should we focus on in our innovation programme?

"Traditionally innovation's suppressed within the gas industry because we're a risk-averse business, so working with partners is a good thing"

You told us that we should focus our effort on projects that are:

- Financially viable without external support;
- Rapidly deployable;
- Within NGN's areas of expertise and the regulators scope of activity;
- Scalable or high-volume repeatable activities where a small saving on an individual instance adds up;
- Projects using proven technology in use outside of NGN;
- Able to address challenges specific to NGN;
- That provide an opportunity to collaborate with supply chain partners;
- Allow smarter use of data to deliver improved customer service

You felt that the ultimate measure of success of our innovation portfolio is financial but that other dimensions are important to, such as:

- An adequate cost/benefit ratio (financial or otherwise) for both NGN and any supply chain partners.
- Adoption by the teams who are meant to use it
- Increased reliability at no extra cost for customers (e.g. reduced leakage or water ingress).
- Reduced risk and increased safety
- Happier customers/fewer complaints
- Scalability

You told us what we (and the wider gas industry) does well and how we could improve:

"These succeed because the buy-in from the guys on the ground is high as they're involved from day 1. The engineers actually want to use the innovations."

You said:

- We focus on innovations that mean the most to field engineers rather than 'fashionable' projects.
- We and other companies in the gas industry collaborate and share learning (partly because of the way innovation is funded by Ofgem) much better than the water industry where Ofwat's competitive performance standards discourage sharing.
- Gas companies learning is highly practical; in water, centralised research by projects aren't specific to any one organisation so are harder to implement.

But you also let us know that our communications aren't up to scratch - that we don't sufficiently communicate the success of each piece of work completed to customers and that doing would help 'justify' their bill.



You gave us your thoughts on how we manage innovation with NGN. You told us that different kinds of projects needed different approaches:

- That larger/longer-term projects such as H21 and others responding to national policy need to be driven from the top down as there are no immediate tangible benefits...
- ...But that a bottom-up, engineer-driven approach works well for short-term innovations.

You felt that the innovation team had a key role to play in helping the business overcome challenges inherent in the innovation process, by:

- Securing buy in at the appropriate level; innovation requires procedure change, which usually requires sign-off at a higher level than the individual who wants the change.
- Ensuring that the pursuit of innovative ideas doesn't detract from NGN's core mission.
- Ensuring that the 'right questions' are asked at the outset to deliver real innovations and solve the problem.

"[An] innovation is a waste of money if we don't implement it."

"A lot of the times within the industry people actually start with a sticking plaster approach. What we tend to do is to jump on the bandwagon sometimes with some of the technical developments and say this is the solution, when we don't actually know what the question is."

Case study: How getting to the root cause of the problem leads to real innovation

One supply chain delegate gave an example of being asked to create a bigger trench cover. Instead of just doing this, he asked **WHY** this was needed.

Answer: because we're digging bigger holes. Again, he asked **WHY**.

Answer: because it's hard to find the main. So, the solution wasn't a bigger trench cover but a better remote system for locating the main, which could then be worked on with the existing, small trench cover.

How should innovation be funded?

Historically, innovation in gas distribution has relied on external funding through the NIC and NIA regulatory mechanisms. On the day, you told us you were concerned about the proposals to cease or reduce regulatory innovation funding through in RIIo2.

You told us that you were concerned that whilst funding during RIIo1 has created innovation, gas is a long-term industry so innovation is actually still in its infancy. Cutting off funding now risks undermining much of the work done since 2013.

However, you also expressed some concerns of the 'bureaucratic' nature of these funding streams. For example, some of you felt that external suppliers would be more willing to fund innovation if they retained intellectual property, but this is restricted by the current NIA and NIC rules.

"There should be an insistence from Ofgem to carry on innovation."

You saw both pros and cons to funding models for alternative funding models and told us:

- SMEs will be encouraged to invest if they know their innovation will be purchased by all four network companies, not just NGN, but this doesn't always happen as regulations vary.
- SMEs want to invest in innovation to grow their businesses, but it's too high risk without funding. Global business can afford to fund innovation themselves, so a loss of funding would skew the type of suppliers working with networks.
- Funding supplier innovation can lead to the "tail wagging the dog"
- Many projects require funding from multiple sources which is difficult to manage as each will usually have different rules.
- External capital investors would not expect IP to be shared.

88% of you told us that we should fund projects in all stages of the innovation lifecycle – including early research and development.

"There should be additional funding, whether it be from the shareholders or other pots in within the UK, whether it's Innovate UK."

"I can only speak on behalf of the SMEs that I know, that there is limited to zero interest in innovating in no-funding mechanism. It's the reason that the regulatory method was applied in the first place because we weren't innovating as a sector."

"The network companies are going to have to take on more of a financial risk in order to innovate. I think the key therefore is to have uncapped reward, uncapped potential from when it goes right."

How can we mitigate the risks of investing in innovation?

"You've got to be allowed to fail, and ask stupid questions, because sometimes stupid questions are very good questions."

You identified four key drivers of risk inherent to our innovation programme:

- Business (financial) risk
- Policy/regulatory risk
- Environmental risk
- Safety risk

"Gas companies in the UK are risk-averse, always have been, and quite rightly should be going forward because we want them to provide us with a safe network."

"Innovation risk is the risk of the innovation not working, of failing, and not delivering what it's meant to. It's not killing people, that's a completely different risk, and shouldn't really have anything to do with innovation."

You felt strongly that our innovation processes must allow for failure.

"If they only invest in projects that will show [success], they're not innovating."

"A failed project is not a bad project, it's only a bad project if you don't communicate why it failed and learn from the lessons that it failed for."

"You've got to be allowed to fail, and ask stupid questions, because sometimes stupid questions are very good questions."

"If you're not failing you're not innovating."

"Innovation is an overused word. A lot of people get best practice or evolution mixed up with innovation, and each one has a different risk level. If you take a product from the drainage industry and put it into the gas pipe, it's proven technology, you've just got to make it safe for gas. The risk is considerably less than if you do something radically new."



Thank you for reading the report.
We would welcome any further feedback you have regarding our plans for the next regulatory period. If you would like to contact us to share your views, please get in touch by emailing innovation@northerngas.co.uk

For further information contact:
innovation@northerngas.co.uk