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Next Stop: Net Zero

Are digital leaders in energy blazing a trail to the future?

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Welcome

World leaders, ministers and senior government officials recently gathered at the COP26 conference, held in Glasgow. The high-profile summit will catalyse action on climate change, placing the energy sector – which accounts for around three-quarters of all greenhouse gas emissions today – under particular scrutiny.¹

Energy suppliers will play a central role in realising global Net Zero ambitions, with government, consumers and investors all pushing for a concerted effort to reduce carbon emissions within the industry. As such, the industry is entering a period of disruption and transformation as firms look to realign their business models with these goals. Investment in digital business transformation will be a key feature in the 'post COP26' era, as businesses play their part in achieving global Net Zero emissions by 2050.

To find out how energy suppliers are responding to this change, we surveyed 375 CTOs, CDOs, CFOs and other digital decision makers across Europe, the UAE and Australia to find out their views on Net Zero, the solutions they need to enable it and the challenges that stand in their way when preparing a business case for digital business transformation, which is a holistic approach to changing the way an organisation thinks, organises, operates and behaves to become digital at the core.

The findings reveal a clear intent within the industry to deliver on Net Zero goals. Employing new technologies is central to their mission – almost nine in ten (86%) of the energy suppliers we surveyed say that digital business transformation will play a key role in achieving their company's Net Zero ambitions. Yet, while there is no denying the industry's good intentions, the road to achieving their goals is less clear. Businesses are being held back by a lack of clarity around return on investment (ROI), insufficient in-house knowledge and a hesitancy to adopt an agile 'test and learn' approach when it comes to testing out new products with customers.

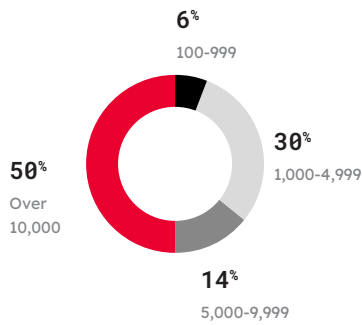
To unlock the opportunity, energy suppliers must learn from 'Digital Natives' who are clearing the path ahead. Leading firms have learnt to build their digital business proposition around the consumer, are unafraid to innovate and have the whole business on board with their mission.

While clearly a complex task, energy suppliers must strive to display these capabilities if they are to remain competitive in a radically changing business landscape. They can no longer be held back by indecision – but must embrace the opportunities that the Net Zero agenda presents to transform their business.

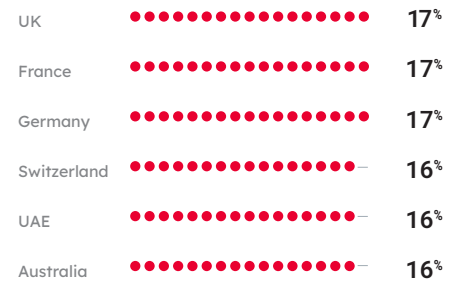
¹'Net Zero by 2050: A roadmap for the global energy sector', IEA, May 2021

Methodology

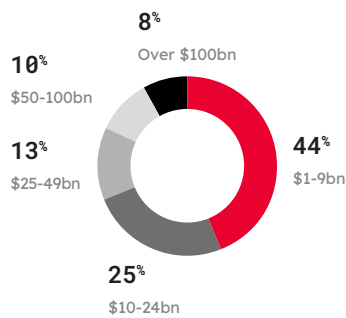
Number of employees



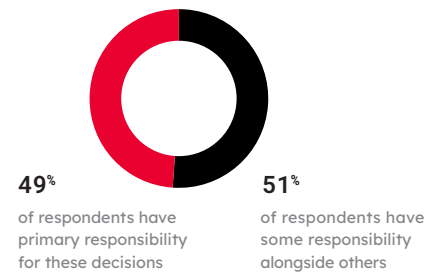
Country location



Revenue



Responsibility for business-critical technology decisions



Job title

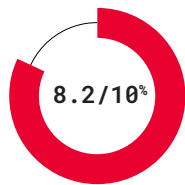


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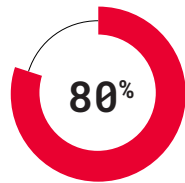
Key findings

Our survey reveals a clear intent to use digital business transformation to reduce carbon emissions, with government, consumers and investors influencing decision-making. Yet the way in which this can be achieved is more uncertain, with energy suppliers needing to overcome several hurdles if they are to deliver on their goals.



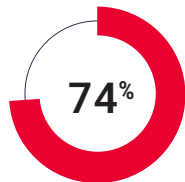
Net Zero is top of the agenda.

Our survey finds that achieving Net Zero is a significant concern for energy suppliers. Survey respondents rank Net Zero initiatives an average of 8.2 out of 10 in their current corporate priorities.



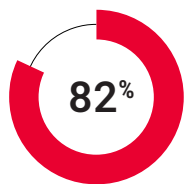
Government regulation demands an industry response.

80% of the energy suppliers we surveyed say increased pressure from government regulators to become environmentally sustainable has been a challenge over the past five years.



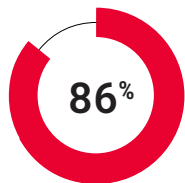
Conscious consumers pile on the pressure.

Almost three-quarters (74%) of survey respondents cite increased pressure from customers to become more environmentally sustainable as a business challenge.



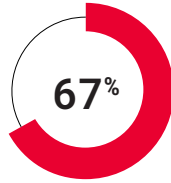
The Net Zero agenda presents a once in a generation opportunity.

82% of energy supplier executives believe the Net Zero agenda presents an opportunity to transform their business.



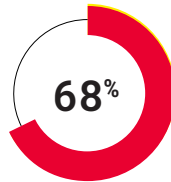
Embracing digital business transformation is central to achieving the Net Zero mission.

Almost nine in ten (86%) respondents say digital transformation will play a key role in achieving their company's Net Zero ambitions.



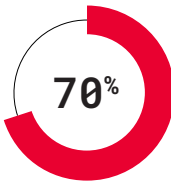
Understanding consumer sentiment is paramount.

Building a business proposition around the consumer is central for energy suppliers – 67% of respondents consider this important to building a successful digital transformation strategy.



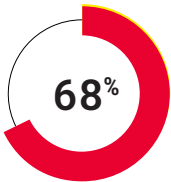
ROI uncertainty is holding companies back.

68% of respondents cite a lack of confidence surrounding ROI as a barrier to employing a digital transformation strategy to reach Net Zero.



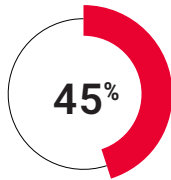
Energy suppliers must innovate to stay competitive.

70% of energy suppliers with digital transformation plans covering the next three years say launching carbon zero products and services influenced those plans.



A lack of in-house knowledge stands in the way.

68% of energy suppliers cite a lack of knowledge in how to implement, operate and/or maintain new technologies as a challenge.



Management must get on board with the Net Zero mission.

Almost half (45%) of respondents believe insufficient management buy-in is a barrier to employing new digital strategies to achieve Net Zero.





average rank of Net Zero initiatives in energy suppliers' current corporate priorities

Net Zero under the spotlight

Energy suppliers face pressure from multiple fronts as they look to achieve Net Zero – both for themselves and for their customers. Far from being viewed as a challenge, however, companies should seize the opportunities on offer to further their Net Zero agenda.

Having accounted for around three-quarters of all greenhouse gas emissions in recent years, the energy sector is at the heart of the global push to reach Net Zero emissions and tackle the global climate crisis.² The International Energy Agency (IEA) stated that a complete transformation of how we produce, transport and consume energy is needed if the industry is to reduce carbon emissions to Net Zero by its 2050 target.³

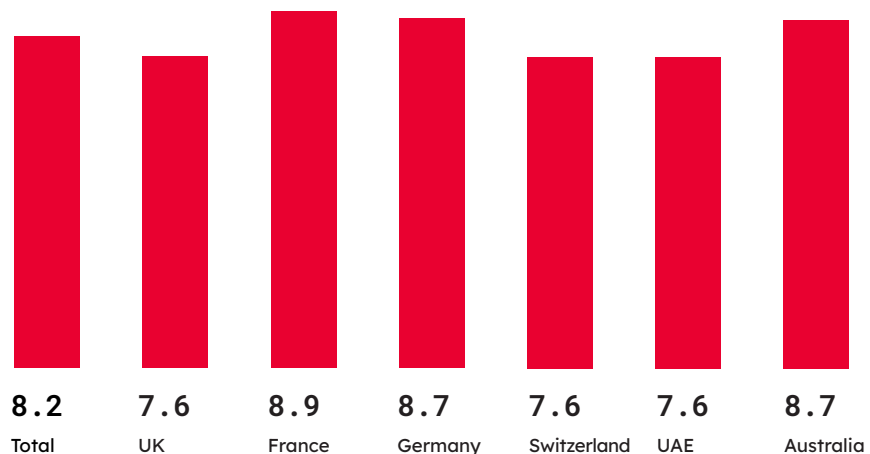
Our survey reflects this drive among energy suppliers, with respondents ranking

Net Zero initiatives an average of 8.2 out of 10 in their current corporate priorities.

French energy suppliers rank Net Zero initiatives highest on their agenda – an average of 8.9 out of 10. France was one of the earliest adopters of an ambitious plan to achieve Net Zero, setting its commitment to reduce carbon emissions in law through its 2019 Energy and Climate Act. In July this year the French government passed a new Climate and Resilience Law, combining financial incentives, bans and directives to improve energy efficiency and reduce emissions across various industries within the country.⁴

Fig.1 Net Zero initiatives high on France's corporate agenda

Thinking about your current corporate priorities, how important are Net Zero initiatives?

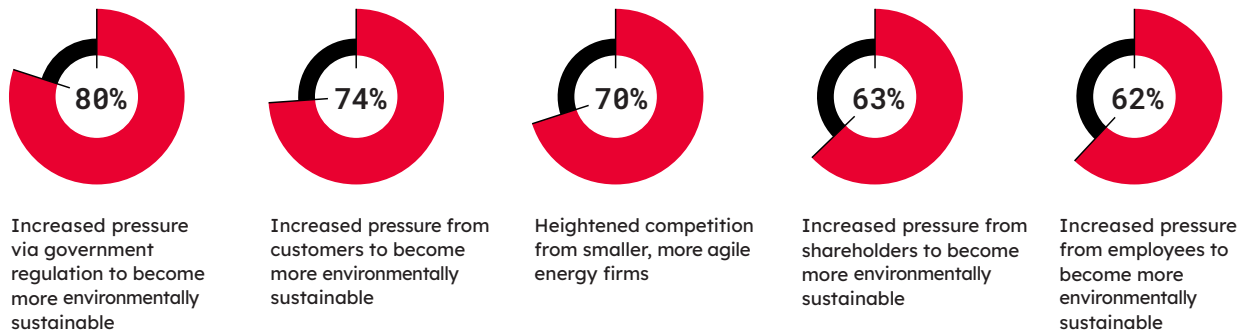


^{2,3} 'Net Zero by 2050: A roadmap for the global energy sector', IEA, May 2021

⁴ 'France approves new climate law, including several measures to support PV', pv magazine, August 2021

Fig. 2 Government and consumers drive the Net Zero agenda

To what extent do you agree or disagree that the following have been challenges for your business over the last five years?



External pressures play an important role in pushing Net Zero up the corporate agenda, with governments, investors and consumers all calling for a clearer pathway to achieve this goal.

Governments set the pace

The recent UN Climate Change Conference (COP26) shone a spotlight on Net Zero initiatives across the globe. The aim of the summit was to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change conference, providing a platform for governments to solidify their commitment to Net Zero on the global stage.⁵ It is anticipated that global leaders will set ambitious targets for energy suppliers to follow over the coming months and years.

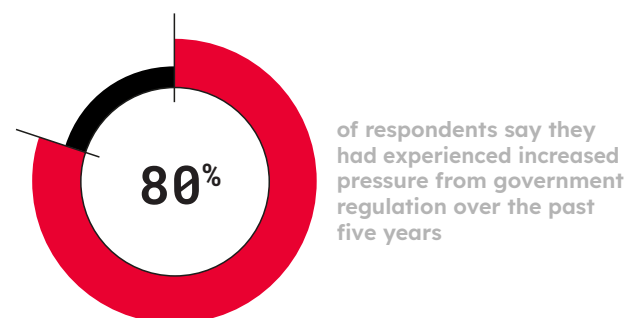
Our survey finds that government regulation is a challenge for energy suppliers: 80% of respondents agree that increased pressure from government regulators to become environmentally sustainable has been a challenge over the past five years.

Michael Lewis, CEO at E.ON UK, believes it is the role of governments to set the pace in the drive toward Net Zero: "Governments need to play their part in the global fight against climate change, and their role is in deciding the direction and setting the pace. We won't make the switch to heat pumps at the speed required by leaving it to

individual consumers making their own choices, just like we didn't make the switch to renewables through generators making a choice. We did it because government put in place a policy framework of incentives and targets," he says.

On a regional level, the UK government's Net Zero Strategy, released in October, set out how the UK will deliver on its commitment to reach Net Zero emissions by 2050, ahead of COP26. As part of its commitments, the UK Government has pledged an extra £350 million to support the electrification of UK vehicles, and £3.9 billion of new funding for decarbonising heat and buildings.⁶

Government commitments such as these will be central in pushing energy suppliers to produce innovative services to their customers and stay at the forefront of the race to Net Zero.



⁵'UN Climate Change Conference UK 2021', UK government and UN Climate Change

⁶'UK's path to net zero set out in landmark strategy', UK government press release, Oct 2021

Consumers at the wheel

A more knowledgeable and environmentally conscious consumer base also puts pressure on energy suppliers to adopt a Net Zero strategy. Almost three-quarters (74%) of survey respondents cite increased pressure from customers to become more environmentally sustainable as a challenge to their business.

“The most prominent driver of Net Zero commitments is consumer sentiment. We are now seeing a concerted push by consumers to choose greener companies to shop and work with, because they care about the environment.”

Devrim Celal
CEO at KrakenFlex

Lewis says, “One of the reasons why we made the decision to supply 100% renewable electricity is that more and more customers were requesting it. For this reason we decided to supply it to all our residential customers as standard and at no extra cost. We could do this because of our history of investing in UK renewables going back decades and it means now, when a customer is charging their EV with us, they are reassured that they are using renewable energy.”

Consumers expect affordable energy alongside a push for greener products and services. This presents a dual challenge for businesses looking to offer innovative services while keeping costs down. “We still see cost being absolutely the number one priority for customers. If you hold costs at an affordable level, the customer expectation is that you’ll move towards Net Zero as well,” says Jon Briskin, Executive General Manager at Origin Energy.

Investors pile on the pressure

According to Briskin, the investor community drives the adoption of Net Zero initiatives: “Investor sentiment is really driving the Net Zero agenda, both in terms of access to capital and expectations from investors and proxy shareholders. There’s suddenly a groundswell of pressure coming through,” he says.

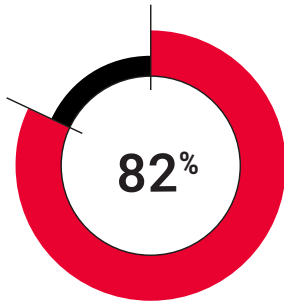
Lessons from the crisis

The UK’s recent gas pricing crisis starkly highlighted the country’s reliance on gas imports, along with the dangers of this dependency. According to Philippe Commaret, Managing Director for Customers at EDF Energy, the crisis serves as a timely reminder that renewable energy can offer a steady and competitive price to consumers, making the energy market more resilient to pricing shocks in the future.

“The crisis was generated by the UK’s dependency on petrol and gas. The independence of the UK’s energy market is what is really at stake with this crisis. Renewable and nuclear generation offer a huge opportunity to offer the UK this independence, making it much more resilient to future pricing crises rather than being exposed to fluctuations in the market.”

Philippe Commaret
Managing Director for Customers at EDF Energy

Lewis agrees with this sentiment. “The UK’s gas crisis was unprecedented. We had not seen anything like it before. It serves as a reminder that the long-term solution to reducing carbon emissions and price volatility is to insulate your home, get off natural gas as an individual, get off natural gas as a country and move to a renewable-enabled energy-efficient future.”



of senior energy supplier executives believe the Net Zero agenda presents an opportunity to transform their business

Digitising Net Zero

Digital business transformation will be the enabling force in the global drive to reduce carbon emissions. If energy suppliers are to realise their Net Zero ambitions, a significant re-evaluation of their digital strategies needs to take place.

The Net Zero agenda and investment in digital business transformation go hand in hand. Almost nine in ten businesses we surveyed say that this will play a key role in achieving their company's Net Zero ambitions.

The next stage of Net Zero

The Net Zero mission has become a powerful driver of digital transformation strategies, providing an opportunity for energy suppliers to transform themselves from the inside out. Our survey reveals that more than eight in ten (82%) senior energy supplier executives believe the Net Zero agenda presents an opportunity to transform their business.

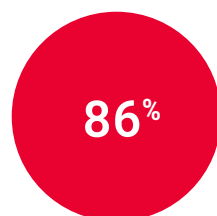
“Digital transformation will allow operators to better balance energy demand and renewable generation and control clean energy devices such as electric cars or batteries.”

Devrim Celal
CEO at KrakenFlex

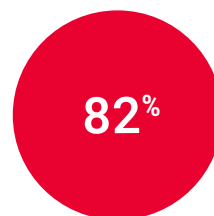
An important piece of the puzzle to move beyond the 50% regular renewable mix. Achieving this will require a significant amount of flexibility all the way through the energy system, from generators to consumers and everything in between,” says Celal. “Moving to the next phase will require significant regulatory input, and involve consumer behaviour changes to benefit a new green, decentralised system,” he says.

Fig.3 Digital business transformation is at the heart of Net Zero ambitions

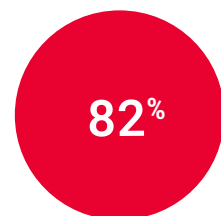
The proportion who consider a successful digital transformation strategy to be 'extremely important'.



Agree that digital business transformation will play a pivotal role in achieving their company's Net Zero ambitions



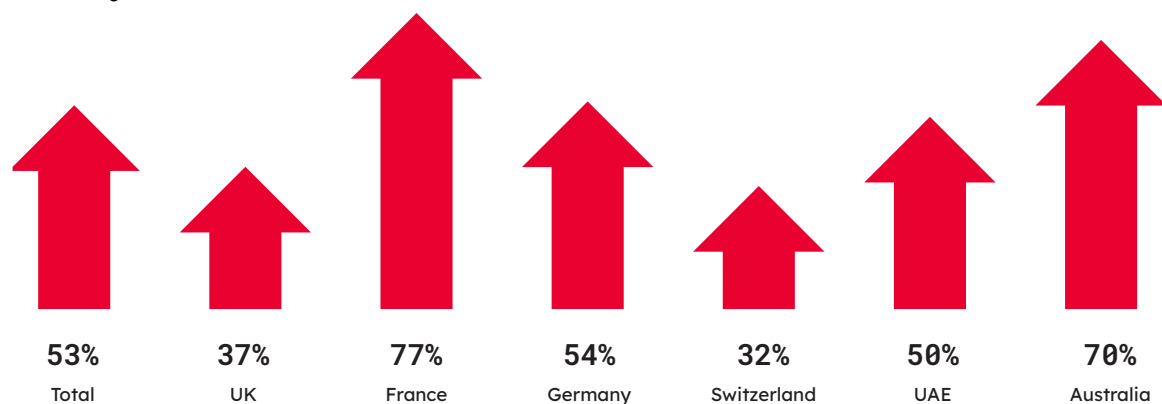
Agree their businesses need digital transformation to achieve Net Zero



Agree that the Net Zero agenda presents an opportunity to transform their business

Fig.4 France and Australia lead the way in digital transformation

Are you currently engaged in a digital transformation strategy intended to help achieve Net Zero goals?



Towards 'digital enlightenment'

At the heart of achieving this flexibility is first gathering data identifying customer behaviour, and second putting the right software in place to make data actionable. Our survey reveals that building a business proposition around the consumer is central for energy suppliers – 67% of respondents consider this an important factor when building a successful digital transformation strategy.

We need to gather all this data to help customers make better choices, and help the national grid to make the system work better.”

“Digital and data is central to understanding the customer. I like to call it a digital enlightenment of the energy system. For technologies such as smart meters, solar panels, EV chargepoints, heat pumps, we need to understand how they’re performing, and how and when they are being used.”

Michael Lewis
CEO at E.ON UK

Delivering new solutions

A more sustainability-conscious consumer base is pushing energy firms to come up with new solutions. Data is crucial for energy suppliers to understand their customer’s profile and offer products that will support them on their Net Zero journey.

The energy suppliers we surveyed are well aware of this need to offer innovative solutions to customers in order to remain competitive. Seven in ten say that launching new carbon zero products and services is a priority for their immediate digital transformation strategy.

Origin Energy’s virtual power plant, Origin Loop, is one such example, using AI technology to connect devices of energy supply and demand at a customer level through a demand response mechanism.⁷ “The benefit is that customers can be part of a smart, connected energy network,” says Briskin.

⁷‘Introducing Origin Loop – our Virtual Power Plant’, Origin Energy, Sept 2021

Fig. 5 Understanding the consumer key to success

How important do you consider the following to be in a successful digital transformation strategy?



Origin has also developed a rewards programme, named Spike, which rewards customers for meeting energy-saving goals during peak demand periods called 'SpikeHours' – when the demand on the electricity grid is high.⁸ "Gamification of energy demand is a really amazing thing," says Briskin. "Our customers love the fact that we can help them to have fun creating a more sustainable footprint for the household."

Innovative solutions such as these enable energy suppliers to engage their customer base in the Net Zero agenda, while also gathering valuable data surrounding their energy consumption habits. This knowledge will enable firms to offer tailored solutions to consumers – strengthening their market position while helping to achieve their Net Zero ambitions.

Building partnerships across ecosystems

Forging partnerships across new ecosystems will be central if energy suppliers are to bring the right technologies and expertise on board to deliver on their Net Zero goals. EDF's acquisition in February 2020 of Pod Point, one of the largest electric vehicle (EV) charging companies in the UK, accelerated the company's range of service offerings to customers in the space.⁹

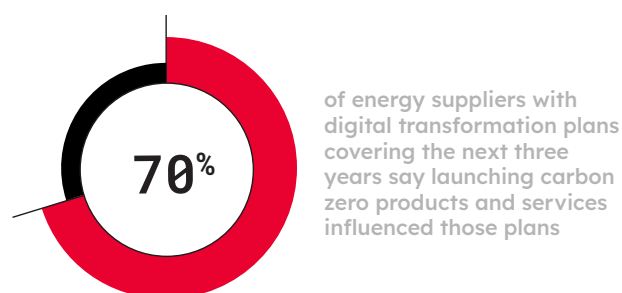
The acquisition enabled EDF to offer low-cost charging solutions to its customers, helping them to reduce their carbon footprint while lowering fuel costs.

"Thanks to Pod Point, we greatly improved our offering in the EV space, making us much more competitive in the market," says Commaret.

Reaping the rewards

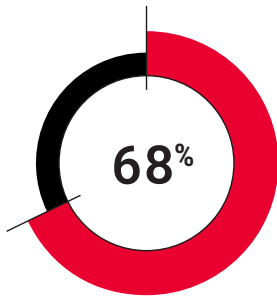
For those that are able to pivot their digital transformation strategies towards Net Zero, the benefits are clear: Improved business performance, ease of access to finance, better customer experience and even higher employee retention rates are all potential benefits for those that get it right.

"Most energy companies that are already going through a digital transformation are doing so because it is the fastest and simplest way to achieve Net Zero and ultimately save the planet," says Celal. "Yet there are many other incentives for businesses who embark on a more sustainable path. Financially, options to raise capital improve, and there is a smoother pathway to accessing financing. We've also noticed at KrakenFlex that we are also recruiting easier than others due to our public push for Net Zero. It's not just consumers and investors that appreciate the push for renewables, it's actually your employees as well."



⁸ Origin Spike - Free Energy Saving Hour - Origin Energy

⁹ 'EDF acquires Pod Point, one of the UK's largest EV charging companies', EDF, February 2020



lack confidence in ROI,
a barrier to employing
new technology to reach
Net Zero

Roadblocks and hurdles

Despite the opportunities on offer, energy suppliers face a range of barriers when looking to employ digital transformation strategies to achieve Net Zero.

While the benefits of digital business transformation to achieve Net Zero are clear, the practical challenges faced can prove overwhelming for some. Our survey identifies the following four barriers as the most significant challenges facing energy suppliers today.

A lack of confidence surrounding return on investment (ROI)

The journey to Net Zero is clearly a long-term project, and goalposts may shift along the way. Be it updating outdated legacy systems, investing in technology or investing in new talent, committing to a Net Zero future requires a significant investment from energy suppliers over the long term. This has led to the perception of a lengthy timeframe to generate ROI. More than two-thirds (68%) of respondents cite a lack of confidence surrounding ROI as

a barrier to employing a new technology in order to reach Net Zero.

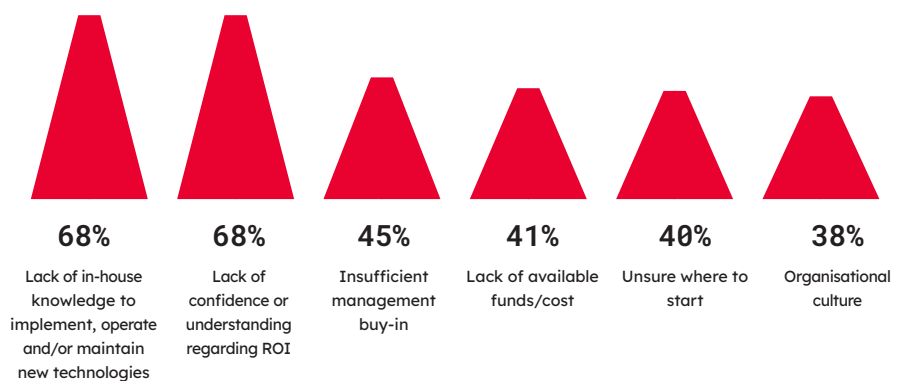
An inability to extract value

While our survey identifies a clear intent among energy suppliers to deploy digital business transformation strategies to meet Net Zero, understanding of how to operate these in-house holds them back. Almost seven in ten (68%) respondents cite a lack of knowledge in how to implement, operate and/or maintain new technologies as a challenge.

Energy suppliers can invest in the capabilities needed, either through recruiting the capabilities in a highly competitive jobs market or by using a digital transformation partner. However, if they do not have the knowledge to extract value out of these strategies, over the longer term, their investment becomes redundant.

Fig. 6 Lack of confidence in ROI and insufficient in-house knowledge are key barriers

What are the main barriers, if any, for digital business transformation?



Net Zero, understanding of how to operate these in-house holds them back. Almost seven in ten (68%) respondents cite a lack of knowledge in how to implement, operate and/or maintain new technologies as a challenge.

Energy suppliers can invest in the capabilities needed, either through recruiting the capabilities in a highly competitive jobs market or by using a digital transformation partner. However, if they do not have the knowledge to extract value out of these strategies, over the longer term, their investment becomes redundant.

An unsupportive culture

The need to innovate and offer competitive products to consumers is therefore high on the agenda, with seven in ten respondents citing heightened competition with smaller, more agile firms as a challenge to their business. Our survey finds that UK firms in particular are struggling with this need to innovate: Almost half (46%) of UK respondents strongly agreed that their company culture does not support innovation.

Energy suppliers are tasked with bringing innovative products to the market at a time when value pools are still emerging. As such, it is not yet clear where the future winners and losers are going to be. "Innovation is hard," says Briskin. "You've got to educate customers in new products, learn what doesn't work for customers and have the staying power and patience to find those propositions that are actually going to be successful."

"Innovation is hard. You've got to educate customers in new products, learn what doesn't work for customers, and have the staying power and patience to find those propositions that are actually going to be successful."

Jon Briskin

Executive General Manager at Origin Energy

A lack of buy-in from the top

A lack of clear leadership emerged as a barrier to energy suppliers when looking to digitally transform to achieve Net Zero goals. Almost half (45%) of respondents cite insufficient management buy-in as a barrier to employing new strategies. If the Net Zero agenda does not receive commitment from right at the top of the company and work its way down, it will become impossible to maintain commitment in the long term. This is a challenge as successful and systematic transformation requires leadership from the top down – the tone must be set from the boardroom. "We were working with a company who were embarking on a digital transformation programme, and the first step they took was to hire a new chief information officer to oversee the change," says Celal.

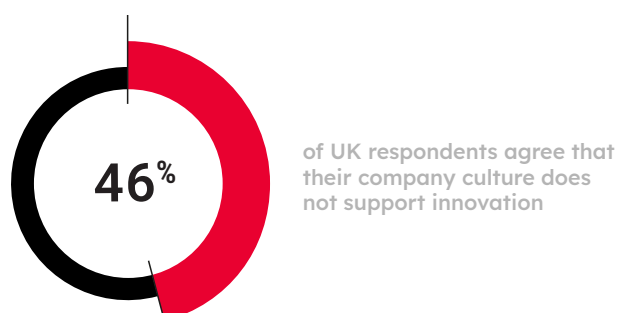
"In order to achieve successful digital transformation, the person at the top either has to change or adapt quickly, because you need a completely different set of skills. You're not running a traditional business anymore – you're running a digital one."

If energy suppliers are to grasp the opportunity and stay ahead of their peers in an increasingly competitive landscape, they must first learn to overcome these barriers.

"In order to achieve successful digital transformation, the person at the top either has to change or adapt quickly, because you need a completely different set of skills. You're not running a traditional business anymore – you're running a digital one."

Devrim Celal

CEO at KrakenFlex



Becoming a ‘Digital Native’

Conclusion & recommendations

With such a complex and multifaceted task at hand, many energy suppliers may be unsure where to start. We identify six steps that they can take to become a Digital Native in their industry:

Become customer-obsessed digital companies

The competitive advantage of digital companies will come from their integrated set of capabilities, what they are able to create with those capabilities and the cultural principles that underpin the systems that create their outputs. Digitally native companies consistently challenge established brands in terms of their customer-centric platform business models, convenience, agility and customer experience. This customer-centricity and competitive advantage are created through their digital capability.

Hand back control to the consumer

Energy firms are tasked with meeting the needs of a much more environmentally conscious consumer base. They want to know where and how their money is spent, the environmental impact of their spending. Whether through gamification, smart meters or customer reward schemes, energy suppliers must deliver innovative solutions to hand back control to their consumer base. Firms that fail to build their business proposition around the consumer will fall at the first hurdle.

Leverage (and understand) your data

A deep understanding of consumer data is needed if energy firms are to deliver flexible solutions tailored to meet their needs. At the heart of achieving this flexibility is first gathering data identifying customer behaviour, and second putting the right software in place to make data actionable and to drive personalised experiences. If energy suppliers get this right, they can offer products that reflect where customers are on their journey to Net Zero.

Adopt a test and learn approach

Energy suppliers will inevitably make mistakes in their efforts to design innovative solutions to achieve Net Zero. Yet, far from being viewed as failures, companies should use these mistakes as learnings to help them succeed in the future, especially when testing out new propositions and services with customers. Businesses that don't adopt this test and learn approach may hold themselves back from achieving the 'next best thing' next time around.

Build partnerships across ecosystems

Forging new partnerships across ecosystems will be crucial if companies are to deliver on their Net Zero goals. EDF's acquisition of the EV charge point company Pod Point, is one such example of how acquisitions can bring new capabilities in-house. EDF, E.ON UK's and Origin's partnership with Octopus' Kraken Technologies is another. Through its licensing deals, Kraken is now contracted to look after 40% of the UK's energy accounts, something that wouldn't be possible if it didn't decide to work with its competitors.

Firms that reach across the boundaries of their 'traditional' industry will be able to strengthen their businesses' Net Zero offering – not only by developing new products and services but by accessing capability and know-how to guide them on their digital transformation journey. KrakenFlex is a great example of this philosophy in action.

“Our mission is making green electricity cheaper for the masses. We're not going to achieve that objective on our own, which is why our software, which actually gives us a massive competitive advantage, is available to anyone – we are looking to transform traditional utility companies to become truly digital.

Devrim Celal
CEO at KrakenFlex

Instil a culture of innovation

Energy suppliers cannot afford to wear innovation as a badge – it must be deeply instilled into the company culture. In this way, new solutions will emerge organically, and employees will be encouraged to test new products. Culture should be instilled from the top down – if the management is not on board with the companies' digital transformation agenda, it will become impossible to sustain.

How we can help

Publicis Sapient was born in the digital age, so we're perfectly placed to modernise and optimise the way energy companies work, or to change their business model completely. Our work enriches the experience of people who engage with their brand in either a B2B or B2C capacity.

We're big enough to lead, but small enough to empathize and take the time to demystify the jargon that creates hesitation around digital. The speed, quality and value of our work is unparalleled, harnessing an agile working method to ensure rapid, measurable and effective progress.

Want to read more?

Get more strategic insights and practical approaches culled from 30 years of evolving to stay relevant.

Nigal Vaz, Publicis Sapient's CEO, authored a new book, published in March 2021, which explores how businesses can sustain relevance by adapting to change and capturing value through digital.

[Read more](#)

Get in touch

Let's discuss how you can apply these learnings to your own digital initiatives.



Joseph Tabita

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Publicis Sapient is a technology company that provides enterprise AI platforms and services. With over 30 years of digital business transformation experience, we enable enterprise clients to transform how they operate and serve their customers, unlocking new value and enabling them to thrive in an AI-driven world. Our platforms Sapient Slingshot, Sapient Bodhi and Sapient Sustain use AI built off this deep enterprise context to help organizations modernize their legacy tech systems, build agentic solutions, and automate their IT operations. The combination of our AI platforms and the expertise of our people enables us to deliver faster and more effective outcomes through solutions that are specific to the unique needs of our clients' businesses, their industries and their customers. Publicis Sapient is the technology hub of Publicis Groupe, uniting 20,000 people worldwide across 28 countries.

For more information, visit publicissapient.com.