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### Foreword

Europe's fastest-growing energy businesses are a force for good throughout the continent, underpinning efforts to combat climate change with a focus on renewable energy and smart technology. Their rapid rates of growth reflect the determination of governments to promote alternative energy, but also their own innate ability to scale at pace.

What is it that has enabled these businesses to accelerate so much more rapidly than their peers? This research sets out to provide an answer to that question. It is part of Pinsent Masons' wider *Pacesetters* initiative, a landmark project designed to better understand what is driving Europe's fastest-growing companies across a range of industries.

In the case of the energy industry, this report is based on exclusive interviews with 100 senior executives of fast-growing businesses across Western Europe, spanning several different sub-sectors of the marketplace. These enterprises vary in size and scale and operate according to a range of business models, yet they share common characteristics that lie at the core of their rapid growth.

These are businesses with a deep-seated commitment to innovation, with large-scale technology investment programmes designed to ensure they retain a competitive edge in a rapidly evolving marketplace. They are businesses that recognise the power of collaboration, exploring both formal M&A activity and a range of alliances. And they are determined to pursue new market opportunities, expand their product lines and focus on the changing needs of their customers.

The energy sector faces a variety of challenges, and government influence in the marketplace through funding and incentives creates problems as well as opportunities. Nevertheless, these businesses continue to deliver impressive rates of growth and are optimistic about the future. *Pacesetters* provides a detailed view of what is driving that growth – we hope it will help others to follow their lead.

#### Paul Rice

Global Head of Energy Pinsent Masons

#### John Tyerman

Head of Corporate UK Pinsent Masons

#### **Carsten Rumberg**

Partner, Corporate Pinsent Masons

#### Peter Feehan

Partner, Corporate Pinsent Masons

#### Thorsten Volz

Head of German Energy Practice Pinsent Masons



### Key findings



#### 77%

say they expect major oil and gas and utility companies to move into the renewables space.



### 61%

see wind as the type of renewable energy with the greatest opportunity for mid- to long-term investment.



#### 48%

say that major oil and gas and utility companies entering the renewables market are prioritising the acquisition of energyfocused technology providers.



#### 46%

say that battery storage will be the most significant type of smart energy technology over the next three years, up from only 3% over the past three years.



#### **54%**

consider investing in and utilising technology effectively to be one of the top three most important factors for their growth in the next three years.



### 82%

see inflated asset prices in the renewables sector as a result of regulatory change.



### **55%**

pick environmental regulation as the most challenging legal/regulatory matter over the next three years.



### **58%**

believe that reduced costs of pursuing growth strategy will be one of the most important ways M&A and alliances will contribute to growth over the next three years.



#### **49%**

say political instability is the biggest barrier to M&A.



### 48%

say that alliances and JVs will be among the most important factors for growth over the next three years.



### 81%

have made a minority stake acquisition in the past three years.



### 88%

say government incentive schemes /pilot schemes drive technology investment decision-making.

### Methodology

The companies chosen to take part in the survey were drawn from a list of the fastest-growing Western European-based energy companies.

The list was produced by Mergermarket from a variety of public sources of information and company databases. Growth rates were calculated based on turnover reported in accounts for the past three years and to be eligible for inclusion companies had to have shown growth in each of the previous two years. There was a minimum turnover threshold for inclusion of €30 million based on the most recent set of accounts.

The survey of fast-growing energy companies is part of a larger 400-respondent survey of fast-growing companies. 100 respondents in each of the following three sectors were also surveyed: Advanced Manufacturing & Technology, Financial Services, and Infrastructure. Overall results of the survey are available in the Pacesetters overview report. For more information, visit pacesetters.pinsentmasons.com.

#### Company breakdown

	Number of companies
France	20
Germany	20
Spain	20
UK & Ireland	20
Other Western Europe	20
Total	100





### Change is coming

Our exclusive survey of 100 fast-growing European companies (FGCs) reveals that they are excited by the potential for new ventures in renewables, while also acutely aware of the need to invest in new technology that will give them a greater cutting edge in that space

As world governments pursue policies designed to meet their increasingly challenging carbon emissions targets, companies are expected to respond to the climate change agenda and to pursue and explore new opportunities. For those that can successfully make the transition – as some leading players already have – the allure is faster growth in a burgeoning sector responding to the increased interest from more agile tech-based businesses and the need for the traditional players to maintain market share in an ever-evolving marketplace.

According to our survey, more than three-quarters of fast-growing energy businesses (77%) anticipate that major utility and oil and gas companies will move into the renewables sector in the near future. That is already happening: major European businesses such as BP and Shell have already made high-profile moves in the industry.<sup>1</sup>

The switch represents a means for businesses in potentially slower-growing – or even stagnant – sub-sectors of energy to secure a boost.

"Customers are shifting towards renewable energy," says the CEO of a Spanish energy business. "The growth figures we have achieved over the past three years are largely a result of that increased demand."

In Germany, meanwhile, the CEO of another energy business says: "The dependency of customers on traditional energy is not giving us extra space to grow. Once more people begin to use clean energy, we will achieve our growth predictions."

#### Wind at their backs

Fast-growing energy companies are looking for opportunities throughout the renewables space, but some sub-sectors will be more attractive than others, as the CEO of a German energy company explains: "Our projects in renewable energy are the ones that will boost our growth over the next three years. Wind and the installation of advanced photovoltaics are going to be vital in the process of generating larger revenues for the company."

Almost two-thirds (61%) of respondents in our survey cite wind power as most likely to offer additional opportunities for investment over the medium to longer term – almost twice as many as those that pick the next most attractive sub-sector, solar (31%).

"Wind turbines have become more efficient and larger, and offshore wind is an energy source which everyone recognises has a large part to play in the future of our European energy mix," says John Tyerman, Head of Corporate UK at Pinsent Masons, who works in emerging energy and cleantech markets. "The question will be how quickly we can overcome the time lag from conception to delivery of large-scale wind projects, as the planning and environmental stages are complex and take a considerable amount of time. This is even before companies consider the supply chain, wider project rights and funding which themselves can take considerable co-ordination, discussion and agreement. Understandably, the costs in the planning phases are significant and so it's key that companies have certainty in energy policy and tariffs in order to support such investment."

### Do you expect major oil and gas and utility companies to move into renewables?



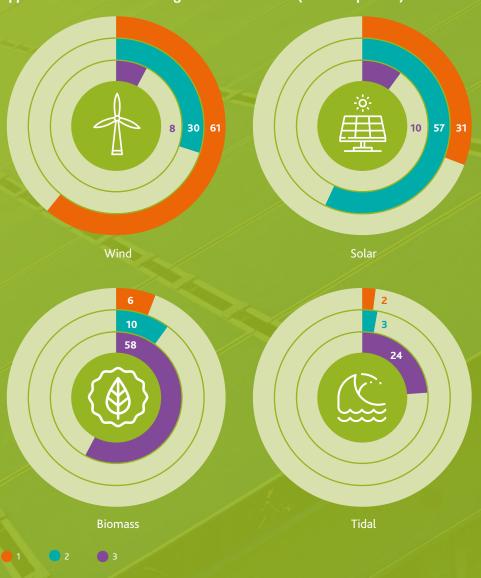
1 The world's largest oil and gas companies are getting greener, Business Insider, December 2017 [http://uk.businessinsider.com/exxon-shell-bp-announce-renewable-energy-and-climate-initiatives-2017-12]

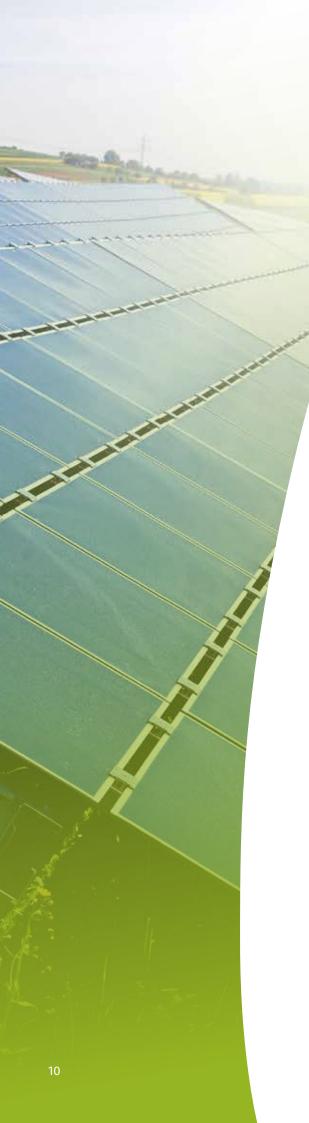


Wind turbines have become more efficient and larger, and offshore wind is an energy source which everyone recognises has a large part to play in the future of our European energy mix.

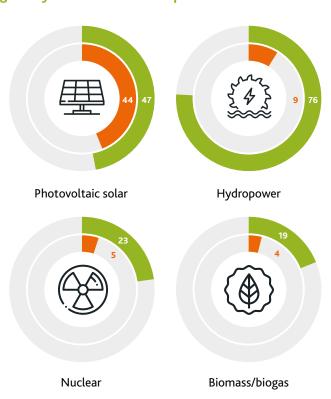
John Tyerman, Head of Corporate UK, Pinsent Masons

Which types of renewable energy do you believe offer increased opportunities for mid- to long-term investment? (Select top three)



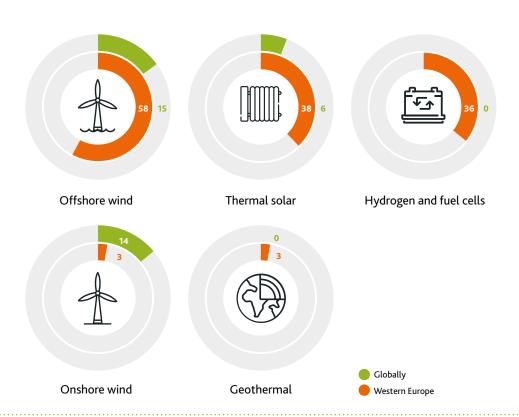


Which two types of alternative energy will see the most growth in terms of capacity over the next three years globally and in Western Europe?



The preference of European companies for wind and solar power almost certainly reflects their view of where capacity is likely to be added most rapidly in the years to come. In Western Europe for example, 58% of fast-growing companies see offshore wind offering the greatest scope for adding capacity, with a further 3% citing onshore wind. This is followed by photovoltaic solar panels, highlighted by 44%, and thermal solar, cited by 38%.

"In Europe, wind power – particularly offshore wind – has become much cheaper to generate, making it very attractive to investors," says Paul Rice, Global Head of Energy for Pinsent Masons. "In the UK, for example, the winning bids for some recent large offshore schemes are a third of the tariff price they were just a few years ago. It can generate more electricity and can be scaled up without requiring tracts of land onshore."



However, the global energy sector offers a slightly different picture: more than three-quarters of fast-growing energy companies (76%) see hydropower as likely to see capacity growth over the next three years – China and South America, for example, have been investing heavily in hydro.<sup>2</sup> Offshore and onshore wind (15% and 14% respectively), meanwhile, are eclipsed by nuclear (23%) and biomass (19%), as well as solar.

While traditional energy companies are excited about the growth prospects for renewables, they are not expecting to make a wholesale switch into this sector from their traditional industries.

The growth of the electric vehicle sector where currently European findings have shown that over 80% of charging occurs at home, for example, may give rise to additional demand for generating

2 2017 Key trends in hydropower, International Hydropower, 2017. https://www. hydropower.org/sites/default/files/publications-docs/2017%20Key%20Trends%20 in%20Hydropower\_0.pdf power for charging, particularly off-peak. In the shorter term at least, fossil fuels may be required to meet that demand.

Nevertheless, many businesses are clear about where their most profitable opportunities now lie. "The emphasis on traditional power sources and not moving to renewable energy sources quickly enough has been the biggest reason for not achieving the growth that we may have expected," says the CEO of a German energy business.

In Eu

In Europe, wind power – particularly offshore wind – has become much cheaper to generate, making it very attractive to investors.

Paul Rice, Global Head of Energy, Pinsent Masons

### Change is coming

#### Technology is powering change

As Europe's fastest-growing energy companies consider new opportunities in areas such as renewables, they are acutely conscious of the need to renew their technology. For many, their ability to invest in new technology and implement it effectively will be the defining factor in their success or otherwise in the years to come.

"Digitalisation of generation, transmission and use is driving change throughout the sector," says Paul Rice. "Digital technology is part of almost everything we do, from our watches to our washing machines. This adds to the overall energy demand, while also creating data, which in turn produces even greater energy demands for the cloud and other applications stemming from the use of Big Data."

"Digitalisation is also changing energy investment profiles, particularly in Western Europe," he adds, "by increasing the efficiency of traditional processes underpinning power generation and transmission, as well as energy use, whether commercial or residential."

That imperative is becoming steadily more important: 26% of businesses in the sector say that investment in technology was among the most important factors in the growth they have achieved over the last three years, but 54% expect it be a vital driver of growth in future.

The shape and intent of technology investment also looks set to shift in the years ahead. For example, 49% of fast-growing energy companies say internal processes have benefitted most from technology investment, in areas such as the supply chain and operations. This is not surprising: technology can boost efficiency and productivity, lower costs and improve margins.

"Internal processes can also include things like the operational efficiency of a plant, such as managing losses along transmission lines," says Carsten Rumberg, Partner, Corporate at Pinsent Masons. "Large plants produce a lot of power that may need to be damped down at various points along transmission lines to a level that can be used by businesses, in industry or in our houses. The longer the lines and the more interfaces involved, the greater the potential losses. Operational efficiencies could be gained here through a more detailed analysis of data, for example, to identify faults along transmission lines and get them repaired faster."

Similarly, gas, oil and coal plants are looking to improve their fuel optimisation and produce the right mix of fuels with the right grades, while many are turning to technology to analyse emissions.

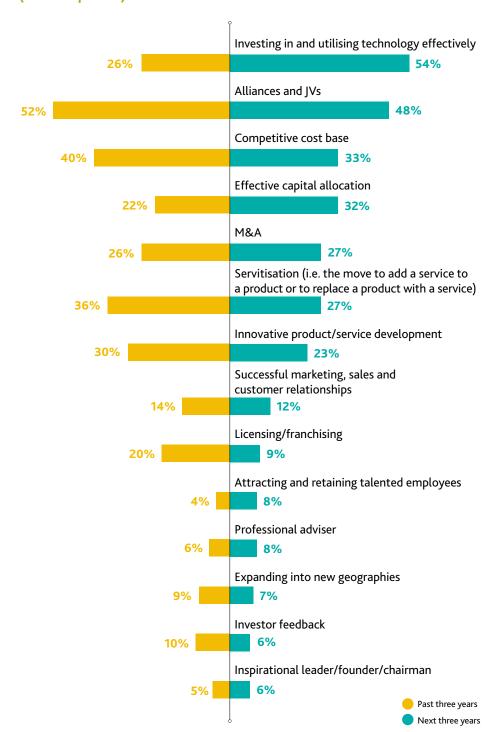
"Managing the outages and maintenance timeframes for plants is another part of the story," Carsten Rumberg adds. "For example, if one plant or turbine has to be shut down for maintenance, technology can help to manage that outage while redirecting power flow or generation."



Digitalisation of generation, transmission and use is driving change throughout the sector

Paul Rice, Global Head of Energy, Pinsent Masons

Which factors have been most important for the growth of your business in the past three years? Which will be most important in the next three years? (Select top three)



### Change is coming

While technology may have reaped the greatest rewards in internal processes, only 22% of fast-growing energy companies say the same about customer experience – for now. Fast forward to the next three years and many have fresh priorities: 31% plan to prioritise technology investment that will help them understand and enhance the customer experience, up from 12% over the previous three years.

"A lot of the changes that we are seeing from larger energy companies are being driven by a need to get closer to customers and maintain market share," says Thorsten Volz, Head of the German Energy Practice at Pinsent Masons. "We're seeing businesses move into services as well as products to create that long-term relationship with customers, and technology is a key driver here. We're also seeing customers, both commercial and domestic, becoming far more aware of pricing and therefore their opportunity to switch energy suppliers, so the value proposition of these companies is ever more important."

In making this shift, fast-growing energy companies intend to invest in a range of technologies. Cloud computing is set to be a priority for more than half the businesses in this survey (55%), providing a means for them to scale up with agility and speed, particularly with the use of "as-a-service" tools (i.e. delivered as a service via cloud or a network) that can boost or reduce capacity at a moment's notice.

Cloud is also the key to exploiting data, says the director of operations at a UK energy company: "Our next big investment will be to move the data we generate every day on to the cloud."

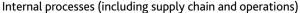
Automation will be a key focus for 47% of businesses, exploiting both internal tools to reduce manual processing and improve quality and productivity, and investing in market-facing areas.

"Automation is an effective tool that will work its way through the electricity supply chain," says the managing director of a UK-based energy company.

Big data and analytics are also set for investment, with more than a third (35%) of fast-growing energy businesses focused on this area. This may be key to better understanding customer needs and requirements – for example, by providing actionable insight that will enable energy companies to focus on improving the experience. But the data revolution also offers energy companies huge opportunities to operate more effectively.

"We want to understand and develop a higher quality digital grid that will work on live data to improve performance and manage output," says the CEO of an Italian energy company.

In which of the following areas has new technology had the greatest impact over the past three years in your market? (Select most important)



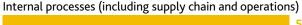


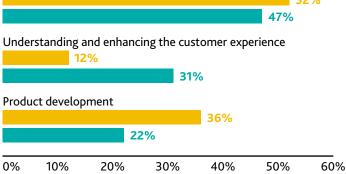
Understanding and enhancing the customer experience



29%

Over the past three years, in which of the following areas have you prioritised investment in technology? How will you prioritise investment over the next three years? (Please select the top priority area)





Next three years

Past three years

### Which technologies are you prioritising for investment in the next three years? (Select top two) 55% 47% Big data analytics (including Machine Learning and AI) 35% 31% Internet of Things 22% Blockchain/distributed ledger technology 5% 3% Finance (crowdfunding/Initial Coin Offering) 0% 40% 60% 10% 20% 30% 50%

### Change is coming

Many fast-growing energy businesses are so focused on adding to their technology capabilities that this is now the focus of much of their M&A strategy. For example, almost half the respondents in this research (48%) say technology providers would be the main companies of interest for oil and gas majors and utility firms that are looking to enter the renewable energy market.

Distribution is another key area of focus, as Peter Feehan, Partner, Corporate at Pinsent Masons points out: "We have seen a trend towards community power solutions in recent years and localised production of heat, cooling and power. Some of this has been driven by planning policy and fuel poverty, but increasingly it's about the realisation of smarter grids as we begin to embrace the trend towards more flexible and efficient energy solutions by business and the community. The broader benefit is that it makes networks more energy secure with less reliance on more traditional sources of distribution and generation, making for a more efficient network and increasing the opportunities for demand-side response solutions, where customers have the potential to sell spare energy capacity back to the Grid."

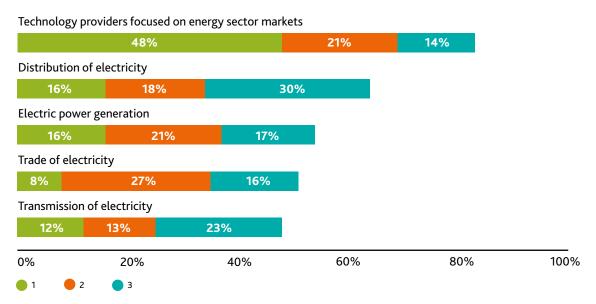
These findings underline the disruptive power of technology in the energy sector, particularly as more businesses move into renewables and other new sub-sectors of the industry. "Acquiring new technologies will be the focal point of our transactions," says the CEO of an Italian energy company.

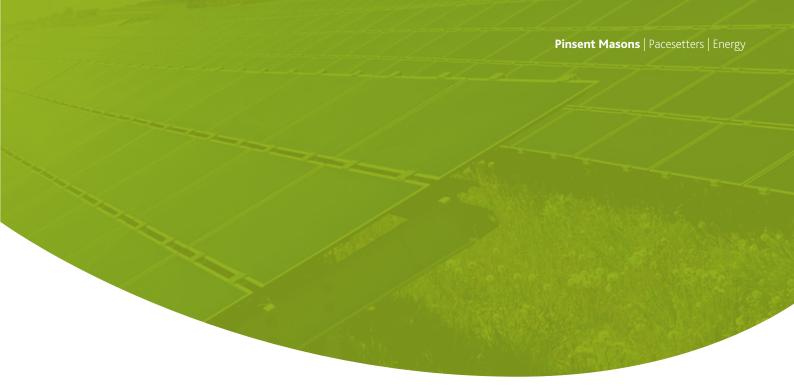
Such views are reflected in the priorities of fast-growing energy companies as they ponder where to invest in smart energy technology in the future. They are increasingly looking to drive innovation that will move their businesses forward in these markets of emerging importance.

Almost half the businesses in this research (46%) say investment in battery storage is going to be crucial over the next three years, a massive leap on the 3% who have focused on this area over the past three years.

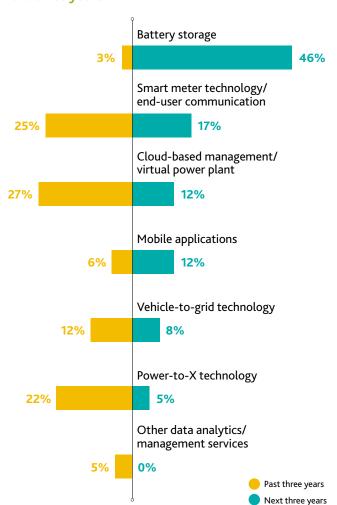
"Traditionally, electricity generation has been all about supply. Today, the demand-side response is becoming increasingly important, providing immediate generation or provision of electricity to meet a demand," says Peter Feehan. "Battery storage feeds into this: we used to just generate power and if it wasn't used, it dissipated. Now, innovative businesses are working on commercial-scale, efficient battery storage projects, to store excess energy during periods of low demand and provide commercial-scale battery storage at or near the source of demand."

### What sort of companies are of interest to acquire for O&G majors and major utility companies in their capacity as new entrants to the renewable energy market? (Select top three in order of priority)





Which type of smart energy technology has been most significant to the growth of your firm over the past three years? Which type do you expect will be most significant to the growth of your firm over the next three years?



However, it remains to be seen whether these projects are economically viable, and there are always risks when you're investing in new technology, as Carsten Rumberg explains.

"The holy grail in renewable energy deployment is storage. However, anybody who invests now could be disadvantaged in the future. For example, you may commit to a five-year storage project now but find that in five years' time, a new market entrant may come along and the capex could be significantly lower," he explains. "This means the storage part of the story may never take off without government intervention along the lines of the subsidies we saw in the early days of solar. But solar and wind need storage solutions to move their story along as well. For many in the sector, the opportunities outweigh the risks."

Europe's fastest-growing energy companies now see battery storage as such crucial technology – and therefore a growth driver – that they are focusing on this area to the exclusion of many previous priorities, including smart meters, cloud-based management and power-to-X technology.

"For the past three years, we have been digging deep into data analytics to improve our overall operations and the performance of the company," says the CEO of a German energy firm. "Now for the next three years we are moving into developing and using batteries that store electricity for future use: this valuable technology will be in high demand due to the rise in demand for renewable electricity."

"Battery storage of electricity is going to power the future," predicts the CEO of a Spanish energy company. "It won't only be industrial units but also smaller homes that benefit from this technology. As we understand the demand for battery storage of electricity we will begin our investments steadily in this technology."



**Chapter 2**: Risky business – regulation and risk



### Risky business – regulation and risk

While fast-growing energy companies in Europe are excited about future opportunities, they are also conscious of the need to plan carefully for threats that could derail their progress

Some threats to the energy sector are macro in nature and affect all other sectors in much the same way, including economic and political volatility. But others are industry-specific, as many energy businesses worry about the regulatory climate in which they operate.

#### **Managing risk**

Political uncertainty (42%) and economic volatility, cited by a quarter of fast-growing energy companies, provide a worrying backdrop for the sector. Businesses considering significant investments or shifting their value proposition to incorporate renewables are doing so on shifting sands. The uncertainties are multiplying, from the rise of protectionism to the increasingly divergent monetary policy outlook.

Meanwhile, these businesses are also worried by technological change, with 19% citing it as a potential threat to growth. This is a double-headed risk: not only are fast-growing energy companies hoping to reorient their business models with technology – where the danger of misstep is clear – but they also face the threat of disruption from competitors powered by new technologies, including new entrants to the sector.

#### Regulation on the rise

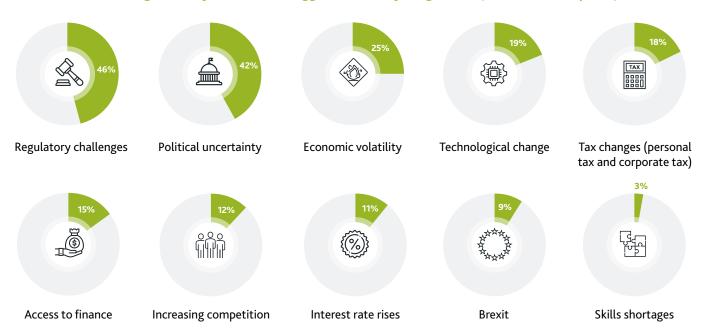
As an industry that supplies a public utility, the regulatory imperative is a constant for these businesses, but the pace of legislative change in recent years has added to the pressure. With that in mind, regulatory risks are seen as the biggest threat to growth. Almost half (46%) of fast-growing energy businesses cite these as a main challenge.

The industry is bearing the brunt of the global effort to combat climate change. More than half the fast-growing companies in this research pick out environmental regulation (55%) as the area where the challenge has been greatest over the past three years – the same number expect this to continue to be the case over the next three years.

As governments across Europe struggle to meet their carbon emission targets, the continent's energy businesses will continue to feel the pressure.

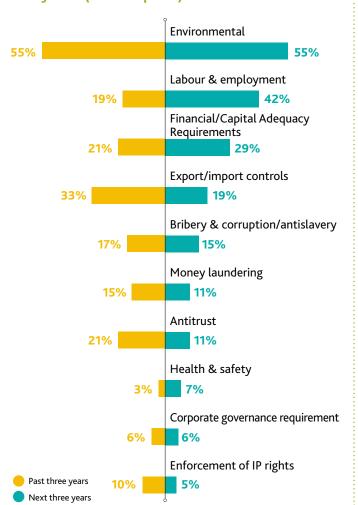
"The climate change agenda is clearly reflected in public policy and that's an important point for these companies," says Pinsent Masons' John Tyerman. "There is greater awareness in the

#### Which of the following risks do you see as the biggest threat to your growth? (Please select top two)





Which legal/regulatory matters have you found most challenging over the past three years? Which regulatory burdens or challenges do you see as most likely to impact your firm's growth over the next three years? (Select top two)



consumer market, with people making decisions not only on price but also according to factors such as their carbon footprint."

"Consumers want a more decarbonised world and the regulatory environment reflects this fact," agrees Carsten Rumberg at Pinsent Masons. "People in the industry are slowly coming around to the view that fossil fuels will not be the way forward forever – although fossil fuels will likely remain part of the energy mix for quite some time. Traditional operators, such as oil and gas companies, are working out where they will be years from now and moving into new areas, including renewable energy."

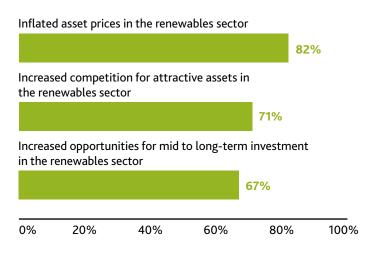
Labour and employment is the other area where fast-growing companies are challenged by legal or regulatory risk: 42% of the businesses in this research pick out this area as likely to be problematic over the next three years, a notable jump on the 19% that have had such difficulties over the previous three years.

Overall, these potential threats are giving many companies pause for thought, says the CFO of a Spanish energy firm, particularly when it comes to dealmaking: "Political upheaval and regulatory conditions have made us more reluctant in our approach towards M&A".

Fast-growing energy companies worry about how to cope with these uncertainties as they shift into renewables. On the one hand, some governments are offering generous incentives and subsidies to encourage competition in this marketplace and businesses to explore these new opportunities. On the other, the availability of such support is skewing valuations in the sector.

The majority (82%) of fast-growing energy companies complain that regulatory change – including both incentives for renewables and disincentives for traditional energy businesses – have inflated asset prices in the alternative

What is the impact of regulatory change (feed-in tariffs/ subsidies/access to electricity markets/networks) on investment decisions in your sector? (Select all that apply)



energy space. Some 71% complain that competition for these assets has been elevated by regulatory interventions.

"Prices are rising," says the Executive Vice President for Finance of a Spanish energy business. "Renewable energy producers are highly valued and deals just don't progress unless the desired valuation is agreed."

Still, many fast-growing energy companies are pushing on in their pursuit of growth: 67% cite increased opportunities for medium to long-term investment in renewables being created by regulatory change.



Prices are rising. Renewable energy producers are highly valued and deals just don't progress unless the desired valuation is agreed.

**Executive Vice President for Finance of a** Spanish energy business





### United front – M&A and alliances

M&A and collaborative partnerships remain essential to Europe's fastest-growing energy companies. These open doors to new markets or product and service lines that might otherwise remain closed, as well as access to invaluable technology and talent

As fast-growing energy companies seek to scale up at an accelerated pace, inorganic growth will be an increasingly significant element of their strategy – but they need to be certain of their objectives or risk losing value on the deal.

"Some companies struggle to explain why they're making an acquisition," says Carsten Rumberg at Pinsent Masons. "They need to establish specific goals and ask why they are entering into a deal. Is it to increase market share? Buy new technologies? Enter a new market? Swallow up a competitor? What are you trying to achieve? These may seem like basic questions, but the answers are not always very clear to the people working on these deals."

More than a quarter (27%) of fast-growing energy businesses agree that M&A will be one of the most important factors driving their growth over the next three years. Similar numbers (26%) have already garnered substantial growth benefits from their M&A activity.

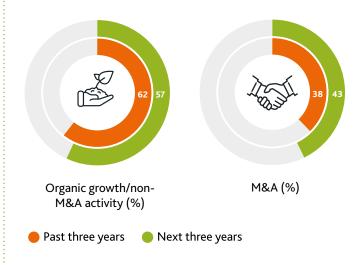
"Investments and expansion have been at the heart of our business growth," says the COO of a French energy business. "Our strategy has been to expand the geographies in which we operate and to ally with other organisations that will supply additional revenue. This focus will remain for the next three years."

In fact, the businesses in this research anticipate, on average, 43% of their revenue growth coming from M&A over the next three years, up from 38% over the past three years. That implies a substantial increase in the number of deals these businesses will aim to complete.

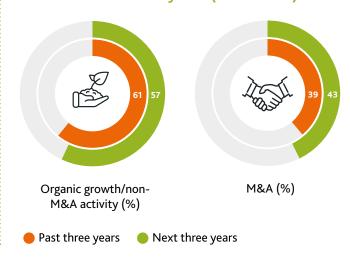
Two factors are driving that increase, argues Pinsent Masons' Thorsten Volz: "First, you have the established, old economy of large utilities that are being forced to now reinvent themselves and find new business models and ideas," he says. "Second, when you look at renewables, you have a group of investors willing to provide financing because the revenue stream is steady and reliable. That means insurance companies, pension funds and others are active in this area."

Any increase in dealmaking will require more resources and many fast-growing energy companies are making plans accordingly. While they have allocated 39% of their capital to M&A activity in the past three years, this is now set to increase, to an average of 43% over the next three years.

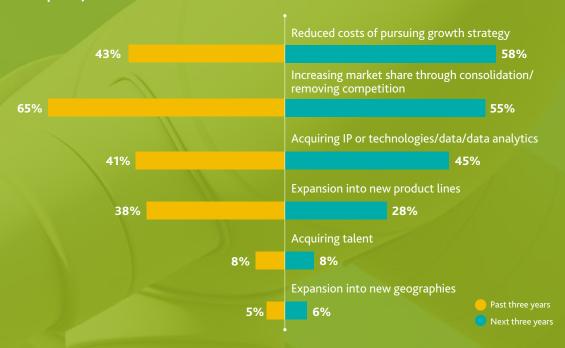
What proportion of your firm's revenue growth over the past three years is attributable to organic growth/ non-M&A activity and what proportion to M&A activity? What do you anticipate for the next three years? (Mean shown)



How has your capital been allocated between organic growth and M&A over the past three years? How will your capital be allocated between organic growth and M&A over the next three years? (Mean shown)



What have been the most important ways that M&A and alliances with other companies have contributed to your growth over the past three years? What will the most important objectives of your M&A and alliances with other companies be over the next three years? (Please select the top two)



The returns on investment from such activities justify the increased allocation, many businesses argue. At an Italian energy company, for example, the CEO explains: "M&A transactions add to the cost of any growth strategy, but also add revenue opportunities instantly and help us to diversify."

What lies behind this determination to pursue more deals? Consolidation has been one important driver, with almost two-thirds (65%) having done growth-enhancing deals with the aim of increasing market share and reducing the competition.

More than half (58%) of fast-growing energy businesses also expect M&A activity to help them reduce costs as they pursue their growth strategy. For others, the objectives are more value-additive: for example, 45% say M&A will contribute to their growth as they acquire new IP or technology, while 28% cite the opportunity to move into new product lines via dealmaking.

[3]

When you look at renewables, you have a group of investors willing to provide financing because the revenue stream is steady and reliable.

Thorsten Volz, Head of German Energy Practice, Pinsent Masons

### United front – M&A and alliances

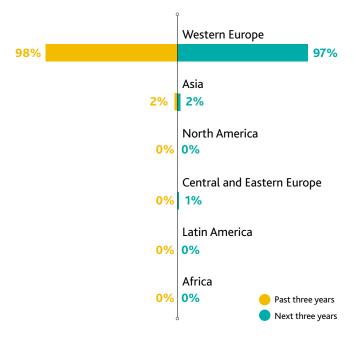
"As the energy market shifts to renewables, small-scale supply, and the need for more storage and greater demand for site control in the grid, you need a lot of smart solutions," says Pinsent Masons' Carsten Rumberg. "This is not where the established utilities come from. They can do large-scale projects, but that's not what is required for the future. They have to invest in new business ideas by acquiring smart, flexible young companies."

By contrast, very few fast-growing energy companies are focused on deals that could help them grow in new geographies: just 6% cite this as a goal for the next three years, slightly up from 5% previously.

Instead, Europe's fast-growing energy companies are – for now at least – focused on opportunities closer to home. Only a small handful of companies have looked at acquiring companies outside of Western Europe.

The dealmaking strategy for most fast-growing energy businesses remains focused on renewables, rather than new markets. While the emerging markets of regions such as Asia no doubt offer opportunities that may become more alluring over time, the investment required to move into global energy markets may also be prohibitive for all but the largest companies – and while renewables and alternative energy offer exciting opportunities closer to home, these are likely to remain the priority.

In which regions have you targeted companies in the past three years? In which regions will you target companies over the next three years? (Select the most important)





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Carsten Rumberg, Partner, Corporate, Pinsent Masons

"Some of the utilities have tried emerging markets, but got their fingers burned and lost a lot of money," warns Thorsten Volz. "They'll focus on Continental Europe for the foreseeable future."

It is also worth noting that many fast-growing companies cite significant concerns that potentially stand in the way of their M&A plans. Almost half (49%) point to the unstable political environment as a bar to dealmaking, while 44% are concerned about legal and regulatory issues.

Not least, high prices in a competitive marketplace are a constant concern. With 23% of the fast-growing businesses in this survey worrying about competition from other businesses, the CEO of one Spanish energy company says: "Valuation is the biggest barrier we face."

#### Alliances to the fore

For many fast-growing energy companies, alliances and joint ventures have been an even more intrinsic part of their growth strategy than full-blown M&A and this looks set to continue.

More than half (52%) of fast-growing energy companies say alliances and joint ventures have been important factors in their growth over the previous three years, and 48% expect this to be true over the next three years.

One common emerging theme – particularly for large businesses working with smaller and more entrepreneurial firms – is that the former do not want to swamp the latter in their corporate culture and risk destroying the spirit of innovation.

A related issue for many larger businesses is their desire to spread their bets. With technology evolving at pace and no certainty about future winners and losers, it makes sense to work with a wide range of different partners.

These arguments make the case for minority stakes in particular, a form of alliance favoured by 81% of the fast-growing energy businesses in this research. But elsewhere in the sector, energy companies are also working with the state through public-private partnerships. Licensing or franchising deals are commonplace too, and many firms have embarked on equity joint ventures.

What have been the most important strategic barriers to M&A activity over the past three years? (Please select the top two)





When your company last announced an acquisition, had you previously considered an alliance with the target company instead?



When your company last formed an alliance with another company, had you previously considered an acquisition of that company instead?



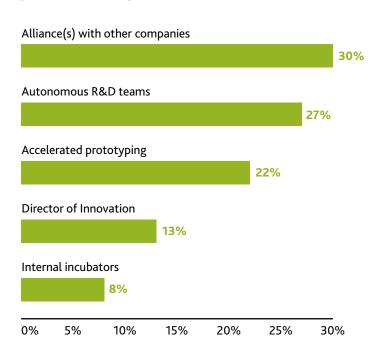
Some informal arrangements do proceed to an outright acquisition – in fact, 86% of fast-growing energy companies that announced an acquisition had previously considered an alliance with the target company instead. It is less likely that businesses announcing alliances had looked at acquisitions first, but their partnerships may eventually proceed in that way.

Ultimately, inorganic growth is not the only option for fastgrowing energy businesses prioritising innovation as they seek to further increase revenues. Many fast-growing energy companies report excellent results emanating from organic growth.

Almost one-third (30%) of fast-growing energy businesses say that alliances have produced positive innovation results. Almost as many (27%) say the autonomous R&D teams they set up were most important in securing benefits from innovation. Techniques such as accelerated prototyping have worked well for many businesses, underlining the importance of speed-to-market for fast-growing companies in the sector.

There is no one-size-fits-all formula for innovation. Many of the businesses in this research are pursuing several strategies for evolving their value proposition and business model, managing these tracks simultaneously. Their ability to execute is an important part of what drives their fast growth in the first place.

Which of the following models for fostering innovation has delivered the most benefit for your business? (Please select one)



# How government funding supports the market

Almost nine in 10 fast-growing energy companies (88%) say government schemes have the potential to influence the decisions they make about investment in technology. This implies many will make strategic investment choices on the basis of available incentives, from feed-in tariffs to subsidised pricing. But it also leaves the sector vulnerable to the changing priorities and motivations of policymakers.

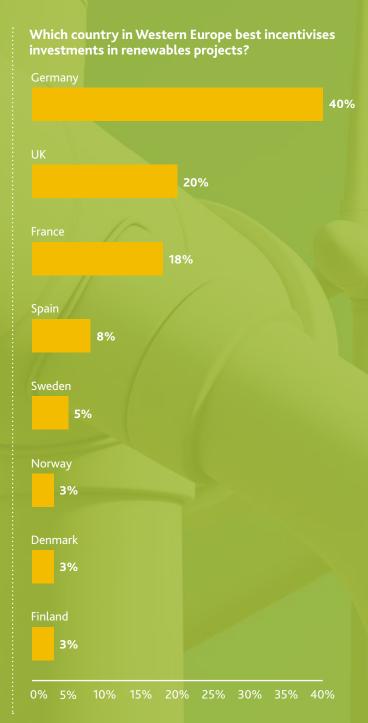
"Subsidies encourage initial investment, taking some of the risk out of the commercial viability of an energy project," says Pinsent Masons' Paul Rice. "But in cases where new technology is involved, where you don't know how long it's going to last or the maintenance costs involved, there is real first-of-a-kind risk involved. Subsidies may level out a lot of the commercial risks that might put off investors in something so novel."

The trend across Western Europe is for policymakers to promote the take-up of renewables, but these tend to weigh some renewables over others, typically favour smaller businesses rather than large companies, and vary across the region. As the market for renewables has begun to reach critical mass and cost of deployment has gone down, many governments are looking at whether to pull back.

For many in this research, government funding is a two-edged sword: they welcome the support but are conscious of the way in which it distorts their market and wary of making long-term investment decisions only for the incentives system to be changed in the short to medium term.

Businesses across Europe share this outlook: "We want the government to promote the use of renewable energy by larger companies too," says the CFO of a Finnish energy company, while the CEO of a Spanish energy company says: "The government needs to create a system that depends on renewable energy."

Right now, Germany is the country where fast-growing energy companies think the government is performing best on incentivising investment in renewables – 40% rate it highly, twice as many as pick any other country in Europe. The country's performance has been impressive – it has already met its 2020 target to raise the share of power consumption originated from renewables to 35%. But here too there are doubts: for example, there is now a tense debate over whether Germany's renewable energy surcharge, its leading incentive, should be retained.





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Paul Rice, Global Head of Energy, Pinsent Masons

### Powering a renewable future

James Samworth, a partner at Foresight, talks about the renewable energy market, the power of collaboration and the evolving nature of technology. Foresight is an independent fast-growing company that invests in energy and infrastructure projects around the world



James Samworth, Partner, Foresight

### What kind of projects are you investing in and how do you judge where to invest?

James Samworth (JS): We really focus on energy infrastructure. Renewable energy projects and assets or what we would call renewable-enabling infrastructure. Things that help balance the grid as renewables grow as a percentage of the generation mixes. That would include solar, wind, biomass, AD, energy from waste, and then things like batteries and match projects, reserve power, standby power. It could include transmission and distribution investments.

In terms of what we look for, we manage a variety of different funds and one of our skills is to match investment opportunities to the right source of capital because those do all have different risk returns, mandates, and preferences.

In general, we want to invest in predictable assets with highquality revenue streams – good contracting fundamentals that offer sensible or attractive risk-adjusted returns. That clearly varies by market, by technology and by asset type, and so it's not one-size-fits-all.

Our report found that fast-growing companies share three particular attributes – a desire for collaboration, a keen focus on technology and a sense of collective purpose. Are these attributes you look for in other companies? And do you see these qualities in your own business?

JS: So of the three, I would say the first and third, without a doubt, definitely. I think the focus on technology probably less so. I mean, as an infrastructure investor we want reliable, proven technology. We don't necessarily want to be at the bleeding edge of innovation.

However, collaboration is a huge part of what helps us build our business and the partnerships we've built.

#### And what are the keys to effective collaboration?

**JS:** It starts with an open mind. You should think about the skills and attributes everybody has, who can do what best and what form of partnership is appropriate for those circumstances.

So, allowing people to maximise their value when they do their part extremely well or they manage things effectively that are within their control. And trying to allocate risk to the parties best able to take it.

### What risks do you look out for when investing in fast-growing businesses?

**JS:** There are a multitude of potential issues. There might be construction risks, there could be pricing risks – power prices or other physical commodities or input fuels and input feed stocks. There could be credit risk counterparty. Or it could be more specific contractual points.

I think a more binary element would be planning and permitting. And then there are reputational risks. That's very important to us.

Technology was a keen focus for companies in our survey. What are you seeing as the major transformations that technology will bring to the industry and how is it affecting you as an investor in these projects?

JS: I see the technological developments that have really transformed markets as evolution, not revolution. If you look at the macro picture and take two examples in the renewables market – solar and wind – you've seen a fairly predictable fall in the cost of those technologies as deployment has grown. Every doubling of global deployment of solar has led to something like a 20% reduction in costs and it's just incremental improvements. Solar's curve has been steeper than wind, largely because it's a silicon-based technology, but we've got a very similar curve in wind.



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Pinsent Masons | Pacesetters | Energy Deployment leads to continuous improvement. When it happens for many years running that's quite transformative and it's led to renewables being able to compete on the grid with either a minimal subsidy or even without subsidy in some cases, which is reshaping energy markets and the politics around subsidies. But I don't see it as a Silicon Valley-type battle for technical dominance. I think it's just incremental improvements that play out over a relatively long period of time. In our report, the vast majority said that battery storage is going to be the most significant type of smart energy technology over the next three years. Is that what you're seeing and how far advanced do you think that is? JS: Battery technology is improving fast and it has the potential to solve a number of problems on the grid but there's a danger that that is a little overhyped. If you just do the maths, batteries can never and will never solve long-term grid buffering problems. However, they're very good at dealing with short-term issues. I think there's a separate question about batteries in electric vehicles and it now looks reasonably likely that electric vehicle growth is going to be fairly substantial. With batteries getting connected intermittently to the grid as people charge and discharge their cars, that clearly could have quite a substantial effect if you add all those batteries up and if you take all that liquid fuel out of the energy system. That could reshape things dramatically. It's a very interesting area but I wouldn't get too carried away just yet.

### The winds of change

Kunal Patel, Head of Partnerships and Structured Solutions at fast-growing energy company Orsted, discusses transformation, trend and technology in the renewables market

### What do you see as the biggest drivers of change in the renewables industry at the moment?

**Kunal Patel (KP):** From my perspective, having a focus on offshore wind, there's a certain market dynamic in Europe, and in the other parts of the world where offshore wind is starting to take off in earnest, there's a slightly different dynamic.

In Europe, we've seen prices of offshore wind come down dramatically over the last six years or so, to the extent that we're seeing projects in the Netherlands and in Germany, for instance, now being constructed on a fully merchant basis, meaning there aren't any subsidies attached to those projects when they will eventually be built.

And so the future of the industry is how developers will continue to drive down costs and what solutions there are to the fact that you don't have a sort of essentially fixed price for your power and how you're going to deal with that risk.

Going further afield, there are slightly different dynamics. In other key markets for offshore – currently Taiwan and the US – we're still in an area where it's a relatively new sector. We will see prices come down pretty dramatically, and indeed the first auctions, both in the US and Taiwan, have shown very low cost of energy for offshore wind. But there is still an off-take agreement available there. So, we're back at more traditional focus areas of building and operating your project as efficiently as possible.

## What kind of technologies and trends do you see that fast-growing companies in the sector are interested in acquiring? And what kind of disruptive companies are you looking to collaborate with?

**KP:** In terms of growth area, we certainly see a role for technology. However, in terms of the digitalisation type agenda, it still remains to be seen what the actual disruptive technology is going to be. I

think advanced analytics and automation will be important across both the construction and the operations of our projects.

It's also likely to play an important part in understanding power grid dynamics a bit better and also downstream customer solutions. Now, that's not something that is extremely prevalent today and probably the most well-known topic is around smart meters.

Whether there are other technologies that can provide even more disruption, we need to wait and see. There certainly appears to be room in the market for something, because it's no secret to anyone that renewable energy is intermittent and finding the right demand-side solution would be a fantastic business platform. The question is whether it's going to be utilities or developers or whether it's going to be sort of existing technology providers who are going to be the right people to do that.

# Respondents say energy storage is going to be most significant to their growth in the next three years. Do you agree and how far advanced do you think the technology is?

**KP**: It's certainly a very interesting technology and something that we started to look at as well. We've got a couple of energy storage projects ourselves that we're looking to attach to a couple of our wind farms.

The area where the technology is most obviously useful in the short term is when it comes to providing ancillary services to grid providers in aspects such as frequency response or short-term balancing. They're clearly still small scale.

So, in terms of removing the need for a base load, which is what some people have been talking about – we're a way off the technology to be able to solve that problem.

#### What are the other types of risks affecting growth in the renewables market at present?

**KP:** A lot of the regimes across Europe and also around the world are auction-based and so you're seeing increased competition and increased asset prices.

I think there are all sorts of other risks that one can contemplate when you're talking about the generation of renewable energy – wind risk, operational risk and those sorts of things. I don't think those have gone away. However, people understand them a lot better, so they're priced very differently to how they used to be. And I feel people have a more holistic approach to their risk analysis.

Fast-growing companies saying that alliances and M&A are both ways that would be contributing to growth. How do companies like your own make these alliances work effectively and how can they contribute to growth?

**KP:** I think it really depends on what you're looking for from your M&A strategy. And we've taken a different approach in different markets. Certainly, the broad answer to whether they can be used and can they contribute to company growth is yes.

Our partnership strategy has evolved over the years. In the earlier years of offshore, we used to partner up with other utilities in the sector and share the risks of developing an offshore wind project and constructing and operating an offshore wind project. As the sector matured, we started looking to develop those – maintaining 100% ownership and then selling down to a financial investor which was a more value-creating strategy. At that point, we had to become more comfortable with the risks related to an offshore wind project.

And now as we enter new markets, as offshore wind has expanded outside of Europe and we look at the US and Taiwan, we've looked to partner up with local players who have a much better understanding of the marketplace than we do.

The future of the industry is how developers will continue to drive down costs and what solutions there are to the fact that you don't have a sort of essentially fixed price for your power and how you're going to deal with that risk.

**Kunal Patel, Head of Partnerships and Structured Solutions, Orsted** 

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Pinsent Masons is an international, full service commercial law firm headquartered in London, with 26 offices across the globe including the UK, Europe, Africa, the Middle East and Asia Pacific. Sector insight is absolutely central to the way we work. The firm supports clients by providing a full range of legal services across a wide range of sectors, one of which is Energy. We have a market-leading practice combining a wealth of transactional and contentious experience and one of the largest dedicated energy teams of any international law firm.

An award-winning team – we won **Energy and Infrastructure Team of the Year 2018** at the *Legal Business Awards* – our expertise spans the entire energy spectrum, including the traditional areas of upstream and downstream oil and gas, nuclear, power generation, energy management, electricity and gas transmission as well as renewables and cleantech, carbon capture and storage, gas storage projects and asset decommissioning. Within the sector, our clients include major multinationals, utilities, FTSE/AIM-listed companies and ambitious independents. We also have a strong network of relationships with energy companies, government and regulatory bodies, industry professionals and the wider financial community, enabling us to contribute widely to industry debate and the business of our clients.

Our clients instruct us because we are not afraid to do things differently. That's one of the reasons why we were named one of the Most Innovative Law Firms in Europe by the Financial Times and the Law Firm of the Year at The Lawyer Awards 2018. Our award-winning global corporate practice continues to go from strength to strength, with a sector-focused reputation for helping companies in their growth agenda globally through strategic acquisitions including overseas expansion. We have been recognised as the M&A Team of the Year at Legal Week: British Legal Awards 2017 and we are ranked as a top four law firm by total number of Stock Market clients by Adviser Rankings 2019.

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