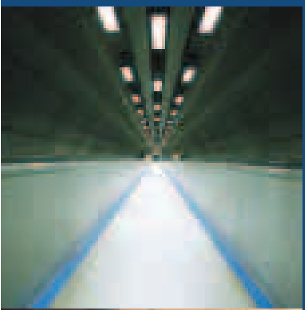
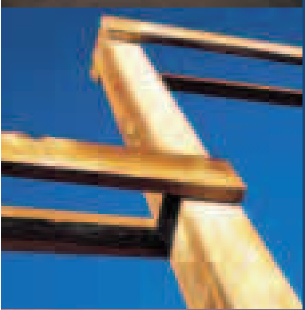
PRICEWATERHOUSECOOPERS

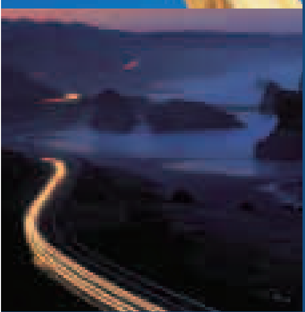
Movers and Shapers 2003

Utilities – Europe

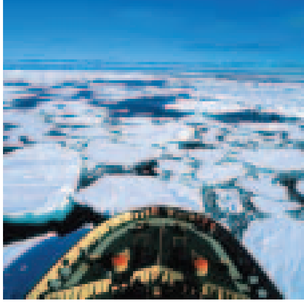
Contents







Introduction



Welcome to *Movers and Shapers 2003 – Europe*. This year is the fifth time we have produced this far-reaching annual survey of the leaders of major European electricity and gas companies. Together with a new companion survey of US utility companies, the report gives a unique insight into the strategies and moves that are setting the pace in shaping the sector's future.

As the bear markets continue and companies strive for scale, players on both sides of the Atlantic remain cautious. However, opportunities do exist as companies seek to differentiate their market offering, build optimal value, and invest to meet significant shifts in capability.

The utilities landscape continues to present a mix of challenges. This market report provides a view of the strategic imperatives that are top of the agenda in the minds of utility leaders. Which companies will be the leading future players? What will set them apart? Are market dynamics set to change? How is the boardroom addressing key issues such as investment, energy trading and environmental strategy?

Methodology

The *Movers and Shapers* European study was conducted throughout December 2002 by surveying 107 senior executives in major utilities across 19 European countries. The majority of participants were Board members, Directors and Heads of Departments. Several were CEOs, Presidents or Vice-Presidents.

The survey obtained a maximum of two responses per company and a minimum of two responses per country from each of the following countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Spain, Sweden, Switzerland and the United Kingdom. One response was obtained from Portugal.

In some of the larger European energy markets, a greater number of responses was received. These included Austria, Germany, Italy, the Netherlands, Spain, Sweden and the UK. A smaller number of responses was obtained in countries dominated by one national company, such as the Central European States, France, Greece and Ireland.

Throughout this report, we will compare and contrast findings from the European utility leaders with those from their US counterparts in our comparative survey *Movers and Shapers 2003 – Utilities US*. The US study was conducted throughout November and December 2002, covering 105 key executives from US utility companies.

Acknowledgements

PricewaterhouseCoopers thanks all the individuals who took time to contribute to this study by completing the survey.

Key findings

A chasm opens up

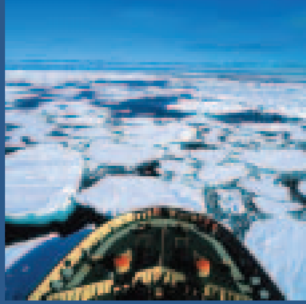
The gap between the mega-players and other companies on the global stage has become a huge chasm in the minds of European gas and electricity company leaders. Fifty-five per cent of our survey respondents single out E.ON and Electricité de France (EDF), and these two companies, together with RWE, tower above other companies which might be considered leading global players. In the space of just two years, the gap between the leaders and the rest has grown fivefold.

European influence extends

The influence of European companies on the global market is reflected in responses to our US survey. Five out of seven companies identified as global leaders by US gas and electricity chiefs are European entities. However, American utility leaders don't view the European companies as a key competitive threat in their home markets. With nearly one in five European utility leaders continuing to eye North American markets and with US market weakness, how many companies will follow this ambition through, or will they decide to focus on their European activities as they consolidate and expand their market position at home?

Regulation and price worries run deep

Regulation and continued wholesale price volatility top the list of factors that will have most impact on European electricity and gas markets over the next five years in the opinion of survey respondents. With European markets still sitting ambiguously between liberalised liquidity and oligopoly, many fundamental issues remain to be resolved, among them the achievement of third-party network access and transparent charging mechanisms.



Vertical integration remains the dominant imperative

As the harsh winds of the bearish capital markets continue, few respondents appear to favour the asset-light model of previous years. Convergence and vertical integration are the biggest drivers of merger and acquisition (M&A) activity, and accounted for over 50 per cent of all deals done during 2002. Portfolios with strong positions in both generation and networks look set to continue over the coming years, and vertical integration is seen to offer shelter from market-risk exposure, credit risks and uncertain market liquidity.

Trading capabilities come of age

Trading has moved to play a much broader role in European utility companies' strategies, and Europe's utility leaders are moving to consolidate their trading capabilities, having faced significant 'catch-up' challenges in previous years. Companies are engaging in a range of internal changes and reporting reforms in the wake of energy trading turmoil, but will this be enough to ensure investor and regulatory confidence? Independent reviews of a company's risk exposure may need to become standard practice to satisfy the demands of independent directors and other stakeholders.

Business gains of environmentalism begin to emerge

Regulatory pressure rather than business strategy continues to be the main spur to environmental strategy and performance. But, as companies engage in tangible aspects of environmental performance such as investment in renewables, the business benefits are becoming more apparent. More than half the utility leaders in Europe and the US see opportunities to gain competitive advantage, and more than a third believe renewables add to the value they can deliver to shareholders and other stakeholders.

Market shape

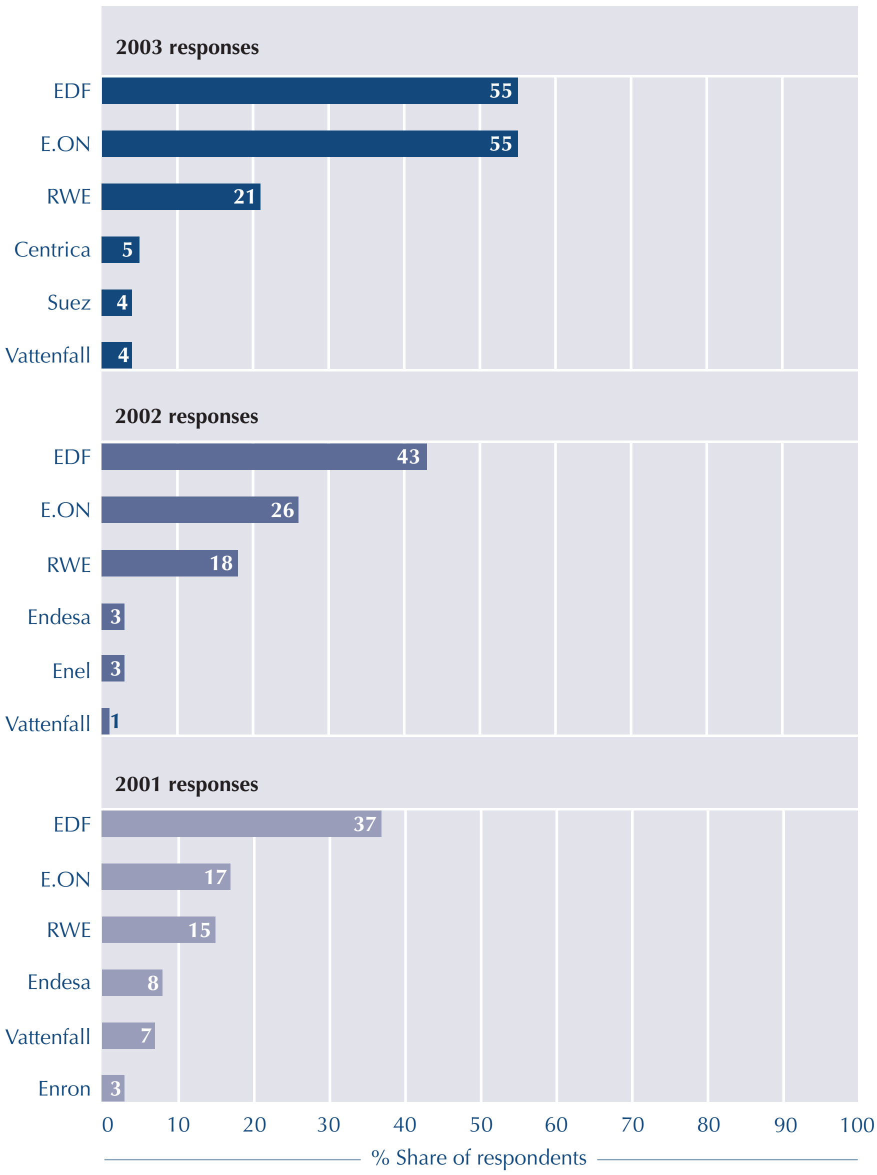
The momentum of utility market realignment in Europe is continuing apace despite recent uncertainty. Consolidation is creating mega-players which, in the minds of the electricity and gas company leaders, are towering over much of the rest of the sector. But, despite liberalisation, the European market landscape remains inconsistent, with companies facing a mix of challenges and reform conditions.

Greater polarisation

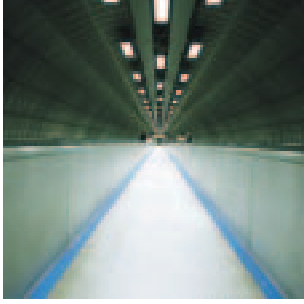
The European market has consolidated to the extent where, when asked which companies will be the leading global players, more than half of utility leaders singled out EDF and E.ON (see Figure 1). Together with RWE, these companies stood significantly ahead of other companies nominated.

Yet only two years earlier the landscape looked quite different, with the gap between second and fourth being five times smaller than the chasm that has now opened up. All three have advanced in the eyes of their peers, and none more so than E.ON, which doubled its share of mentions.

Figure 1: **European utility leaders: which companies do you see as the leading global energy player(s)?**



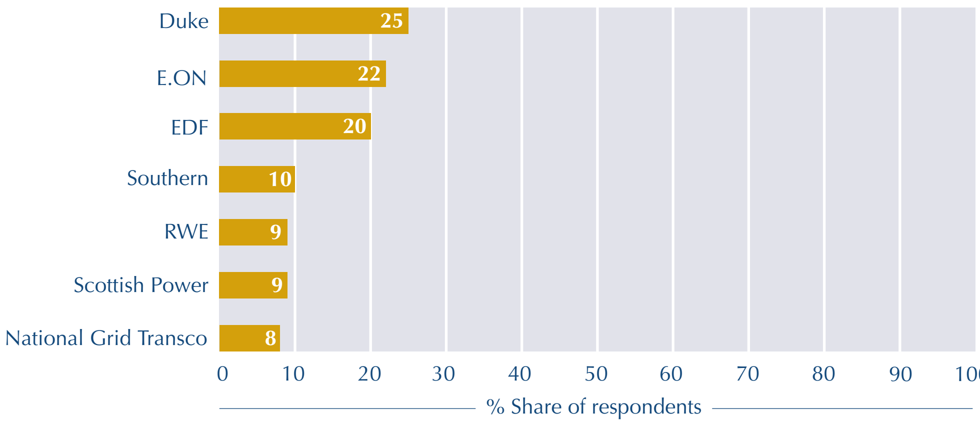
Note: % Share of respondents; more than one response possible
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*



Below the top three, Centrica's pursuit of a multi-utility and multi-service retail strategy has caught the eye of other gas and electricity company leaders. As consolidation runs its course, the remaining players are set to become even bigger, although debt burdens may prompt sell-downs that could stem the polarisation trend.

One of the strengths of pan-European liberalisation is that it has allowed companies to build the scale to go global. This is borne out by the responses in our US survey of utility leaders, who include five European companies in their top seven contenders for leading global companies, with E.ON and EDF in the US top three (see Figure 2).

Figure 2: **US utility leaders: which companies do you see as the leading global energy player(s)?**



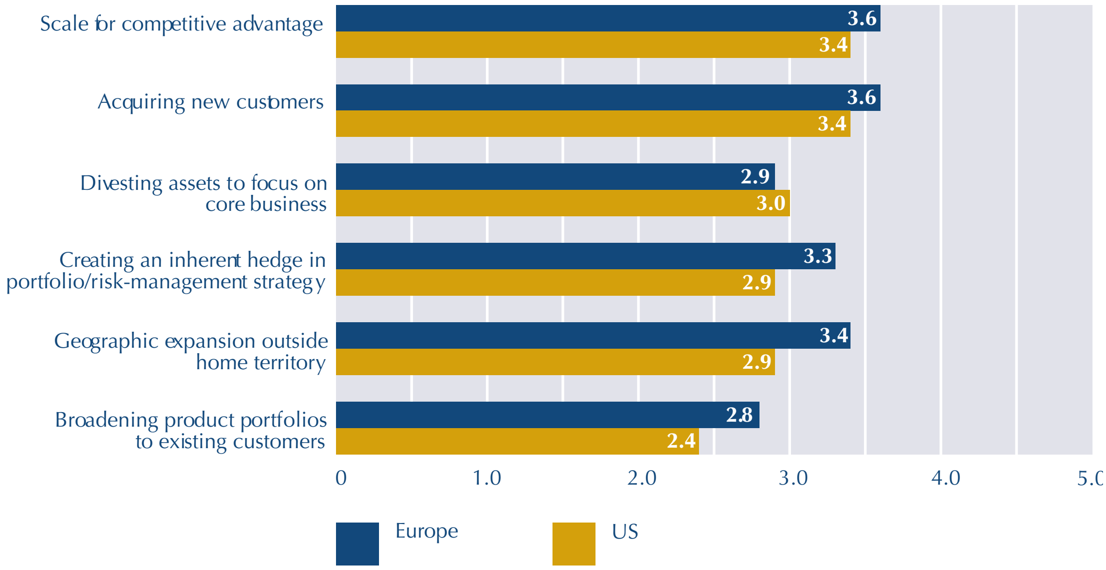
Note: % Share of respondents; more than one response possible
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Striving for scale

Scale counts for a great deal in a sector that is infrastructure-heavy and capital-intensive. Size and market presence are reasons cited by more than 80 per cent of European respondents as to why EDF, E.ON and RWE are global leaders. E.ON and RWE's capital bases are also admired, while asset strength (i.e. generation and network capacity) feature strongly in the case of EDF and E.ON. US respondents similarly cited size and capital base, but also were more ready to identify other factors. Strategy is seen as a strong card in Duke's favour, while US respondents identify the 'protection of an uneven playing field' as the second most important influence on EDF's success. The latter was also mentioned by 77 per cent of European respondents naming EDF, although the impact of this 'protected market' factor is waning in the minds of European utility leaders when compared to their responses in previous years' surveys.

The drive towards even bigger size is the key factor motivating future merger and acquisition activity, with scale, a wider customer base and geographical expansion top of the merger and acquisition agenda of European utility companies (see Figure 3). US companies place a similar emphasis on scale and customer base, but are less inclined to cite the ambition of expansion beyond their home territory.

Figure 3: **What is driving your merger and acquisition activity?**



Note: Average response: Rate where: 5 = major diver; 1 = not a driver
Source: PricewaterhouseCoopers, *Movers and Shapers 2003– Europe*

A snapshot of global M&A activity within the electricity and gas markets points towards the continued acquisitive streak among European companies. Close to 90 per cent of all activity within the sector in 2002 was European-led, with North American activity falling from around a third of all activity in 2001 to just 13 per cent in 2002. Deals were done with strategic intent, and pure geographic expansion took a back seat as scale through vertical integration became the driving rationale (see Figure 4). (Source: PricewaterhouseCoopers, *Power Deals Annual Review 2002.*)

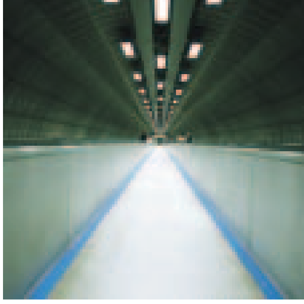
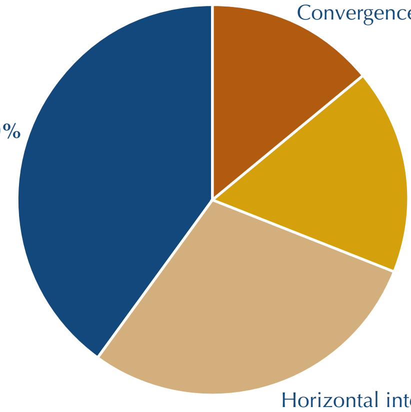


Figure 4: **Top 40 deals: analysis of rationales**



Source: PricewaterhouseCoopers, *Power Deals Annual Review 2002*

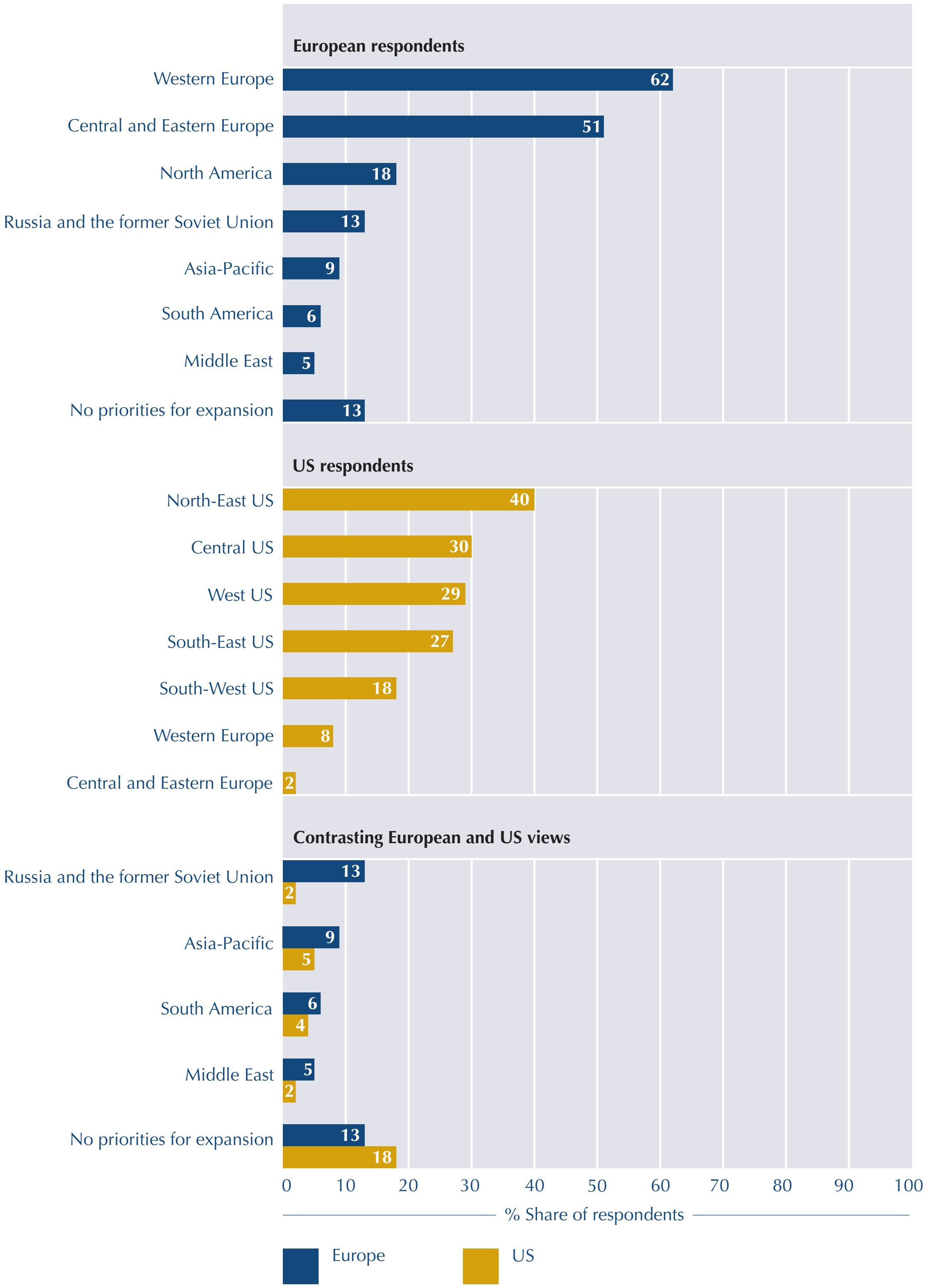
Pure geographic expansion took a back seat as scale through vertical integration became the driving rationale.

Europe will continue to be the main focus of deal- making in 2003. Nearly two-thirds of companies have their sights set on expansion in Western Europe and more than half in Central and Eastern Europe (see Figure 5). However, with many of the bigger deals tied up, it is unlikely that M&A activity will reach the heady levels obtained in the period 1997–2002. The focus of consolidation will move away from the arenas where some of the largest recent deals have been completed. The consolidation of smaller regional gas and electricity companies in mainland Europe has some way to run, and the flow of privatisations in coming years, principally Gaz de France (GdF) and EDF, will mean that they will provide a greater share of activity. A number of privatisations are also scheduled in Eastern Europe, but demand from buyers is uncertain.

A significant proportion of European gas and electricity company leaders continue to look further afield for expansion. Nearly a fifth cite North America and, while this proportion is down on last year, the weakness of US utilities and low stock values point to the potential for some significant moves by European companies in the American market. Ambition in the opposite direction is, unsurprisingly, more subdued, with only 8 per cent of US firms identifying Western Europe as a target for expansion.

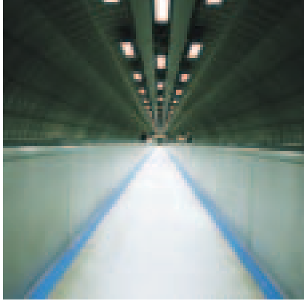
The combination of depressed energy markets and macroeconomic crises means that few European utilities will be prioritising South American markets. There is, though, an increase in interest in certain Asia-Pacific markets. There are many quality gas and electricity assets seeking buyers in the Far East but, while potentially more stability exists, worries about underlying market and macroeconomic fundamentals also cast a shadow over prospects. As Europe looks eastward for gas, the Russian marketplace will continue to be important, although rather fewer companies are indicating that their ambition will lie in that direction. The prospect of Russian gas companies moving downstream as the ‘quid pro quo’ for upstream gas investment may provide a further spur to activity, and this could herald a greater blurring of the boundaries between the electricity and downstream gas sectors and the big exploration and production (E&P) players.

Figure 5: **Which geographical markets are your priorities for expansion in the next five years?**



Note: Total % responses; select all those that apply
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

However, players on both sides of the Atlantic will remain cautious. Uncertain market conditions and price spikes experienced in countries such as the UK, and liquidity and credit pressures faced by US companies, will continue to influence a cautious approach for many years to come.



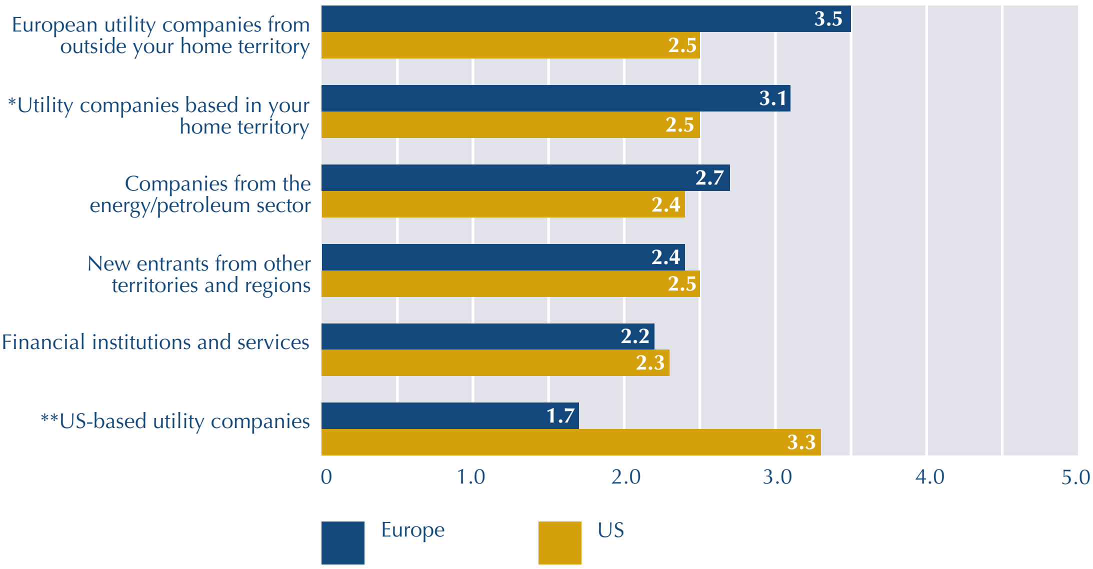
Competitive threats

European gas and electricity leaders have altered their assessment of where the competitive threats to their companies are coming from. The potential of entrants coming from outside the sector has taken a subtle shift from the 2002 survey. Energy/petroleum companies are seen as a marginally more likely threat and financial institutions a less likely threat (see Figure 6). Convergence between the gas and electricity sectors and the increasing gas interdependence of Russia and Europe are factors in this change. However, the acquisitive nature of investors, such as Warren Buffet's Berkshire Hathaway group, seems to have gone unnoticed, and companies may be downplaying this threat at their peril.

The recent retreat of several US companies, many seeking an exit from foreign investments in an attempt to bolster balance sheets and restore credit ratings at home, has created the biggest shift in perceived competitive threats. European respondents significantly downgraded the competitive threat posed by US firms.

The difficulties of achieving a global footprint in the gas and electricity sector is highlighted by the challenges that US firms faced in gaining an optimal presence in European markets. The challenges facing European companies seeking expansion in the US are no less great, and this is reflected in the fact that respondents to our US survey continue to rate the competitive threat from their US peers significantly above any worries about European companies. Nonetheless, as noted earlier, nearly one in five European gas and electricity leaders harbour ambitions for North American growth. The key question is how many will follow this through, and how many will put cross-Atlantic expansion on hold while they focus on bedding down their European expansion. There are likely to be some notable exceptions but, given the challenge of markets on both sides of the Atlantic, many European electricity and gas leaders may prefer to play at home rather than aim for geographic expansion in North America.

Figure 6: **Looking ahead over the next 10 years, how would you rate the competitive threat posed to your company by the following?**



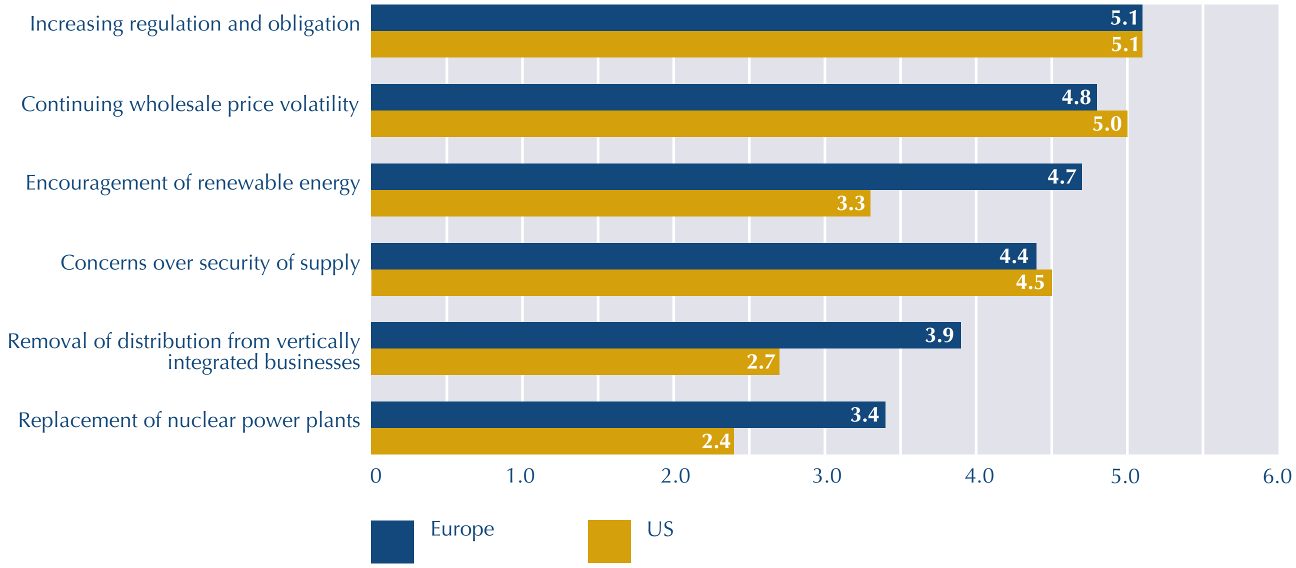
Note: Average response: Rank where: 5 = greatest threat; 1 = no threat
*Companies within own territory, state, FERC region, wholesale market
**National or smaller regional companies outside home territory
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Regulation looms large

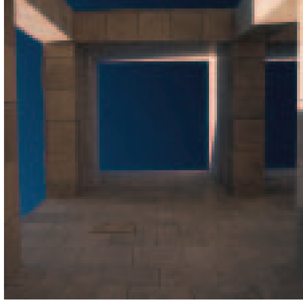
Despite the goal of liberalisation and a more unified market, the reality is that European gas and electricity markets remain highly varied and sit ambiguously between liberalised liquidity and oligopoly. Not surprisingly in this context, survey respondents say the activities of regulators will be the single factor that will have most impact on gas and electricity markets over the next five years (see Figure 7). Many fundamental issues remain to be resolved, among them the achievement of third-party network access and transparent charging mechanisms. Companies are also experiencing the impact of increasing obligations on renewable energy, while uncertainty over regulatory responses to merger moves is a continuing concern. Worries about regulation are also symptomatic of market uncertainty with the power sector beset by concerns about price volatility and security of supply. The resulting price spikes that occurred at the outset of New Electricity Trading Arrangements (NETA) in the United Kingdom contributed to uncertainty over price volatility and market liquidity, and many have a watchful eye on new regulatory arrangements.

As markets continue to evolve, so too must the regulation within which markets operate. Not surprisingly, in the wake of a number of shockwaves hitting US utilities, increasing regulation is also the number-one characteristic identified by US utility leaders. The Federal Energy Regulatory Commission (FERC) is still ruling on the fallout between state authorities and energy companies during the California power crisis. The vision of deregulation remains, but the FERC continues to face a challenge in redefining the market and achieving the right balance between price signals and regulatory concerns. Public confidence in an effectively functioning energy market has been severely dented by price manipulation. Conversely, companies will need confidence that genuine increases in their cost base can be passed on to consumers. Where retail and wholesale competition is weak, solutions will be difficult to achieve and many US players are now less certain than before over which direction regulators will take.

Figure 7: **What are the major likely features of the power market over the next five years?**



Note: Average response: Rank where: 7 = most impact; 1 = least impact
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*



Strategic shape

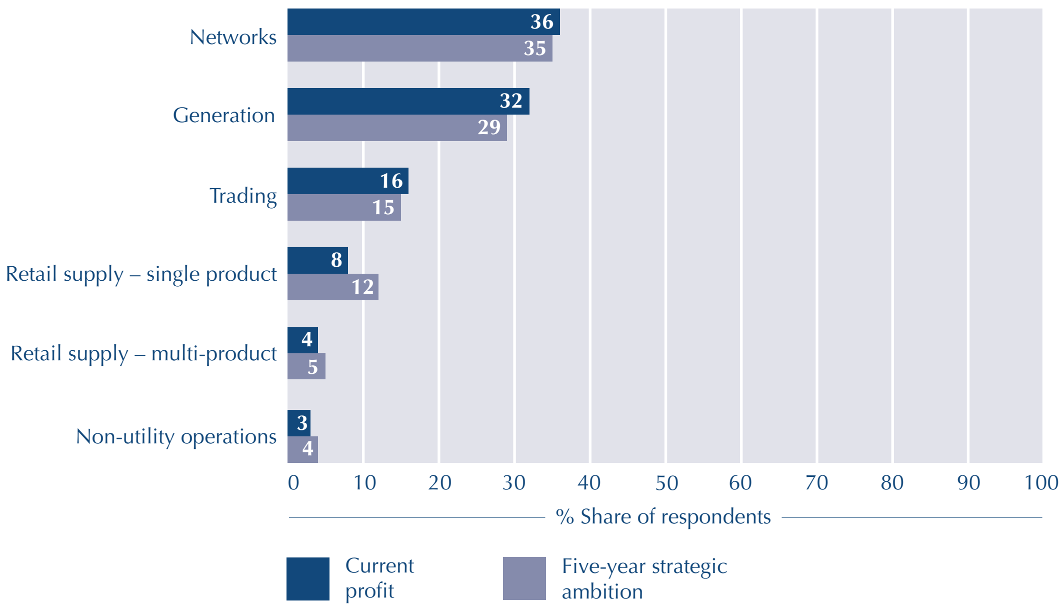
The search for optimal strategic shape continues to dominate boardroom thinking as the pressures for vertical integration reassert themselves. Value-chain synergies mean that, increasingly, companies are seeking to marry electricity and gas activities. With some notable exceptions, the push towards wider product and service convergence has abated.

Vertical hold

Companies have sought to gain an optimal degree of vertical integration in their structure, between retailing at one end and generation and production at the other end. In both Europe and the US, regulatory pressures have swung back towards favouring vertical integration, but there are also clear strategic reasons why utilities have chosen this approach. Both European and US companies emphasise the ability it gives them to hedge between generation and retail as well as the opportunity for back-office synergies as companies handle a huge and sophisticated data challenge. Continuing moves by larger players for smaller municipal entities, such as Stadtwerke in Germany, reflect these imperatives, while a range of companies has recently completed significant deals to blend gas and electricity activities, particularly at the supply and generation end, giving significant hedging opportunities.

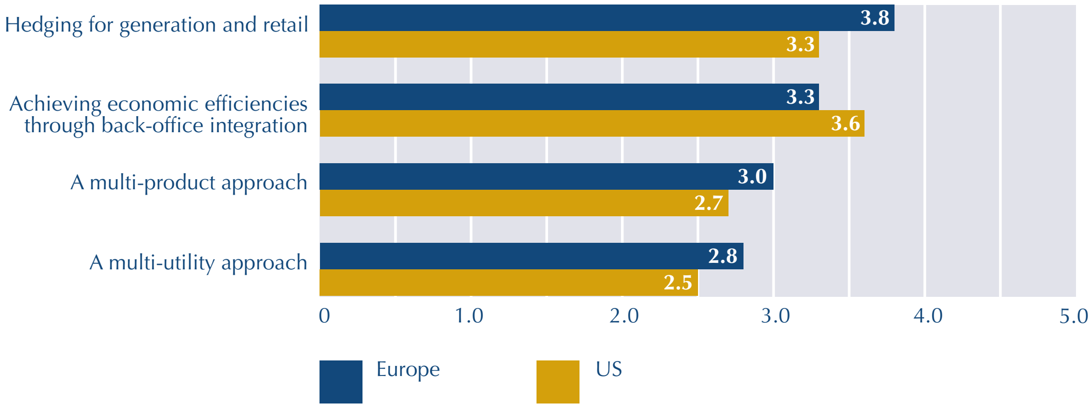
The renewed emphasis on vertical strategies is reflected in European gas and electricity leaders' expectations of which activities will deliver profits for their companies (see Figure 8). In contrast to previous years' findings, when more emphasis was placed on the growth of multi-utility strategies, this year's survey indicates that respondents now expect most of their retailing growth to come from their main core product (see Figure 9).

Figure 8: **Where do you currently earn most of your profits in percentage terms, and what is your strategic ambition over the next five years?**



Note: Average response: selecting % now and in five years
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Figure 9: **What are the main drivers behind the recent re-emergence of vertical integration?**



Note: Average response: Rate where: 5 = highly significant; 1 = insignificant
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Cost-cutting and capacity-building

Given the recent widespread consolidation in the European utility sector, it is unsurprising that company leaders are looking to the rationalisation of functions as the most important source of efficiency gain in the next two years. Rationalisation and enhanced risk- management are the top areas where European utility leaders feel that significant gains can be achieved.

The high proportion of companies experiencing the need for capability shifts and following this with investment, is an indicator of the changes being experienced in European gas and electricity markets (see Figure 10). A number of companies has come from a relatively zero base in areas such as energy trading and Customer Relationship Management (CRM), and around 80 per cent of European companies have been busy making investments in Information Technology (IT)/e-business and CRM systems and skills. This is significantly more than is reported by US utility leaders where only two-thirds of respondents report making investments in their top priorities – Enterprise Risk Management (ERM), IT/e-business and CRM.

Trading and risk-management operations are constantly evolving and utility expertise in these areas remains limited when pitted against oil majors or investment banks and, indeed, when compared with the trading experience built up by many US electricity and gas companies. This need to build up skills and capabilities is reflected in the fact that three-quarters of European utility leaders report that they have made investments to improve energy trading capabilities within their company.

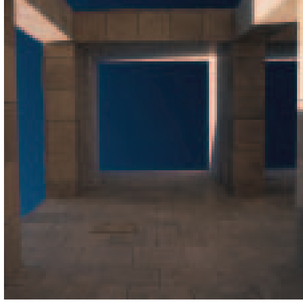
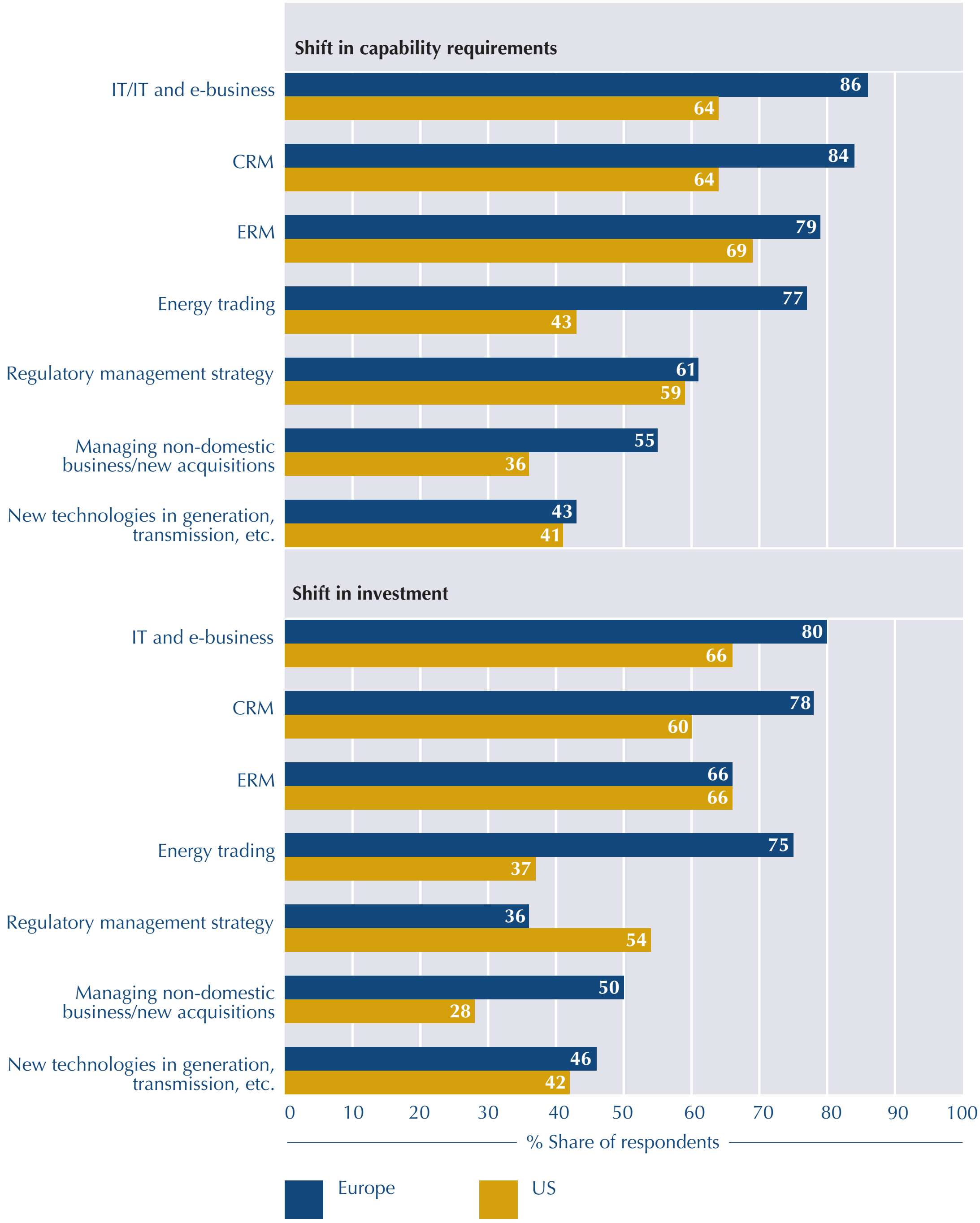


Figure 10: **In which areas of your business is there a shift in capability requirements, and where have you invested?**



Note: Total % responses; select all those that apply
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

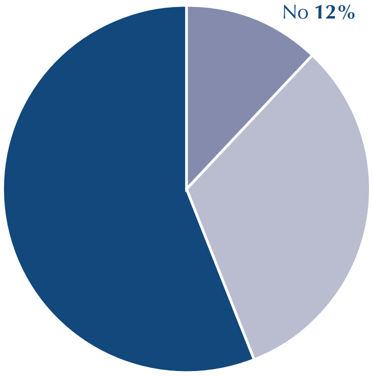
Communicating value

Utility companies are competing in a global capital marketplace. Optimal values are fundamental to winning the commitment of long-term investors and getting the right flow of capital to align with their strategic financial needs. Our survey indicates that a significant proportion of companies believes they face problems of undervaluation. Forty-four per cent of European utility leaders felt that either the markets were not getting the right information on which to value their company or, if they were, they were delivering inaccurate valuations (see Figure 11). In the US, an even larger proportion of utility leaders – 55 per cent expressed this concern.

If anything, these responses underestimate the extent of the problem. When asked more directly if their company's share price reflects their market value, 70 per cent of utility leaders worldwide reported that they believed the market undervalued them. (Source: PricewaterhouseCoopers, *Competing for capital, recognising utilities' worth,* 2002).

Turning to the barriers in the way of maximising shareholder value, utility companies on both sides of the Atlantic look most readily to external obstacles – regulators, according to European utility leaders, and the capital markets themselves as well as regulators in the case of US respondents (see Figure 12). Frustration with regulation is particularly understandable for companies which are expanding cross-border and operating in a range of territories. For these companies, regulatory management is an important potential barrier to achieving synergies across territories. Not only does the relationship with the regulator need to be conducted on a territory-by-territory basis but inconsistencies in regulatory rulings may hinder the achievement of operational synergies.

Figure 11: **Do you believe that you are providing the market with the information required to value your company accurately?**



Note: Select one response only
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

In a period of market pressure and lower valuations for many assets, the identification of the capital markets by US utilities' leaders as the main barrier to maximising shareholder value is understandable. However, there is an element of circularity in this point of view and both US and European companies alike may gain from being more ready to look inward as well as outward. Although they see the capital markets as an obstacle, they do not equate this with lack of market understanding of value drivers. Our separate *Competing for capital* (ibid) survey, however, showed a substantial gap between the information that investors value as important and the actual flow of information from utility companies. The extent of the gap in the utilities sector was wider than in any of the nine other industry and business sectors surveyed, which ranged from consumer goods to chemicals and from insurance to information communications. Thus the view of 90 per cent of US utility leaders and 88 per cent of European leaders that they are delivering the right information to the capital markets appears too complacent.

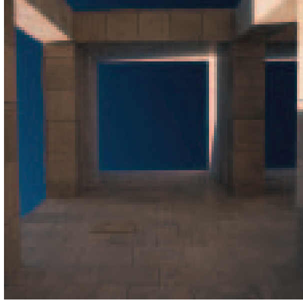
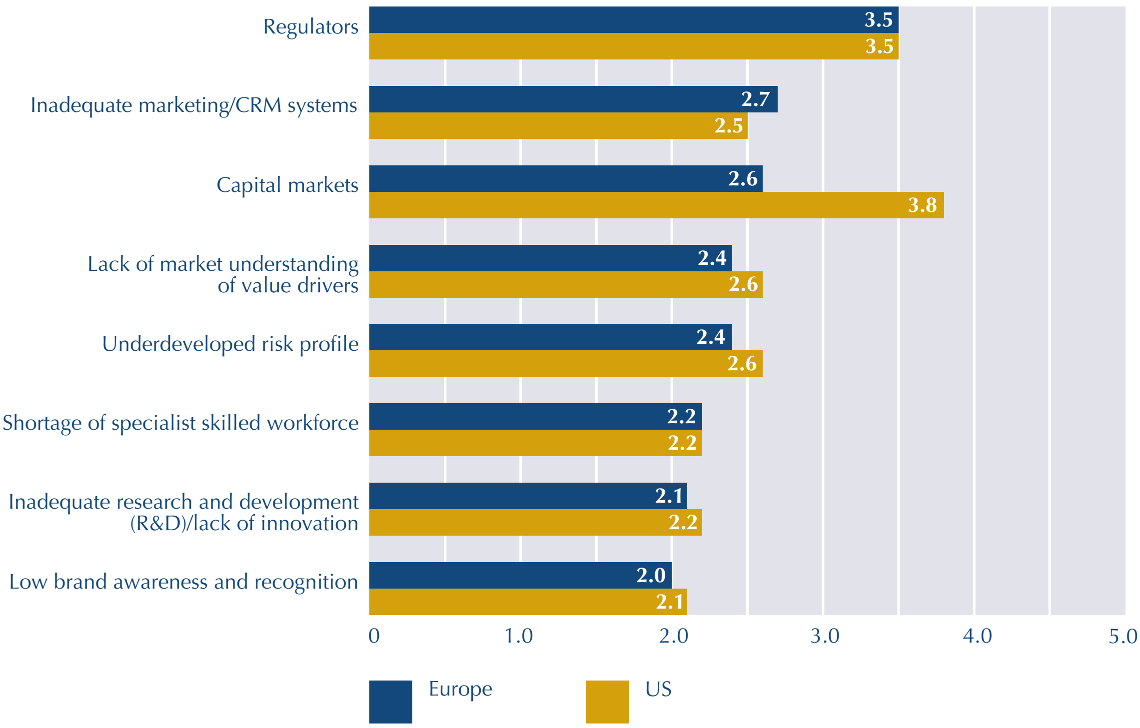


Figure 12: **What's holding your company back from achieving maximum shareholder value?**



Note: Average response: Rate where: 5 = most importance; 1 = least importance
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Standing out

On the differentiation front, European utilities are moving away from price being the lead point of distinctiveness, placing more emphasis on customer service and hoping that attraction or loyalty to brand values might become as significant in customers' minds as price (see Figure 13). Such a strategy makes retailing sense, since it allows companies to build greater service and brand equity, thereby reducing pressure on pricing strategies. US companies are adopting a similar approach, although with less overall emphasis in the marketplace on brand and rather more on price.

Customer service becomes the leading differentiator.

Figure 13: **Electricity and gas are commodities – how do you plan to differentiate your business from your competitors?**

	2002	2003
Customer service	4.1	4.1 (4.3)
Brand values and awareness	3.7	3.5 (3.4)
Price	4.2	3.5 (4.0)
Multi-utility offering	3.5	3.0 (2.6)
Products and services outside utilities	2.9	2.8 (2.7)

Note: Average response: Rate where: 5 = most important; 1 = least important
US response in parentheses
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Trading shape

Shockwaves after the Enron collapse have created energy trading uncertainty. Liquidity has been lost from markets as US companies have exited. The underlying case for energy trading, though, remains. Will companies make the right moves to restore confidence, credibility and volume to the marketplace?

Still on course

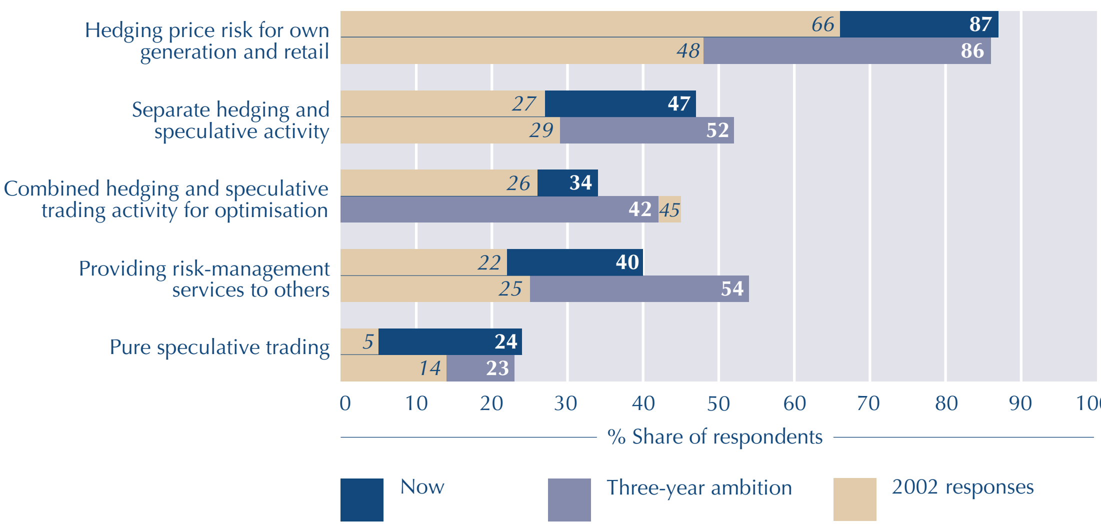
Our survey shows that, having come late to the energy trading arena, pan-European liberalisation means that a much greater proportion of European companies is now embracing energy trading and see more potential than their US peers in the development of trading markets. Eighty-seven per cent of utility leaders, up from 66 per cent last year, see trading as intrinsic to hedging retail and generation price risk (see Figure 14). Last year, a quarter of companies reported that they sought to conduct both hedging and speculative activity, with a similar share combining such activity. This year, nearly half (47 per cent) and around a third (34 per cent) put their current trading operations in these categories.

These are big movements in just 12 months and, not surprisingly, the ambition for three years' time is to consolidate rather than to introduce further changes to trading strategy. A notable difference is the increasing number of utility leaders who say their company is looking to deliver risk-management services to others. Given that less than two-thirds of respondents from smaller utility companies in last year's survey said that they anticipated keeping trading in-house, the delivery of services to smaller players is likely to be a fruitful additional value-adder for the larger trading teams. This is especially the case in medium-sized markets where many smaller utility companies are yet to be consolidated, such as in Austria and Finland and, to a lesser extent, Germany.

Contrasting US views

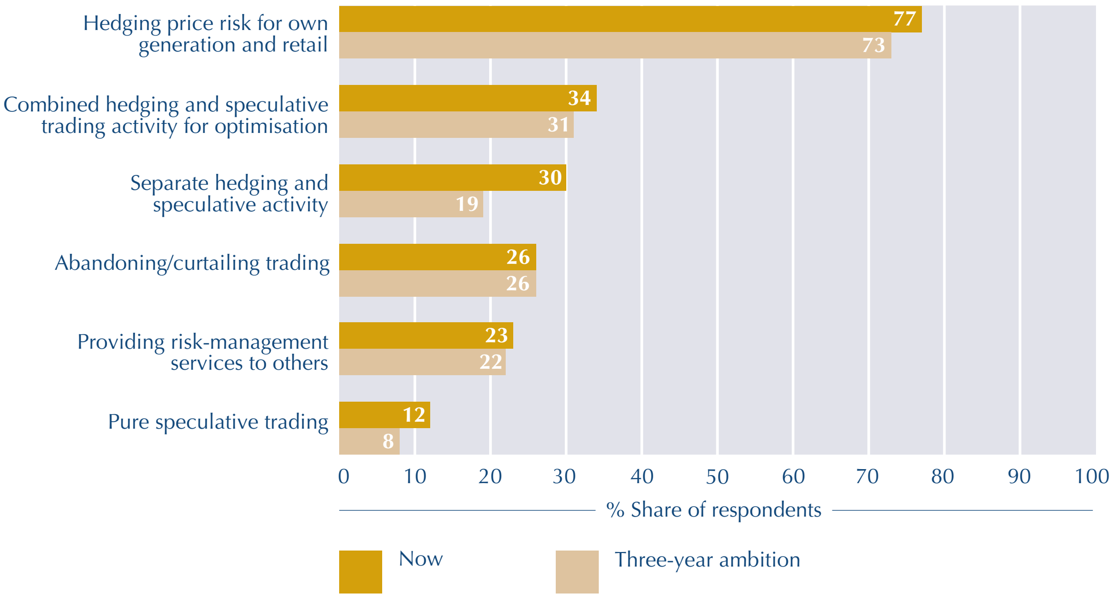
US companies, many of which are more used to trading, in turn have less need to invest in trading capabilities and, following the impact of recent turmoil, are more cautious. Quite simply, US wholesale markets, being more developed, have lost more from the recent events. Indeed, 26 per cent of US utility leaders in our survey say they are severely curtailing or abandoning their energy trading operations altogether (see Figure 15). The share of US utility companies embracing trading is significantly lower than in Europe and, across the board, the three-year ambition of US utility leaders is for a further slight retreat rather than consolidation. US companies are redefining their trading strategies to narrow hedging, having learned the dangers of mismanaging wider trading ambitions.

Figure 14: **European utility leaders: which of the following reflects your trading operations now, and your three-year ambition?**



Note: Total % responses; select all those that apply now and in three years
2002 responses in italics
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Figure 15: **US utility leaders: which of the following reflects your trading operations now, and your three-year ambition?**



Note: Total % responses; select all those that apply now and in three years
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Consolidating trading

The progress of European companies in developing their trading operations is reflected in a slightly greater degree of comfort with the trading challenges they face. Their average rating of the significance of various challenges has moved half a point lower compared to last year. Only worries about counter-party risk remain at the same level of concern as 12 months ago, which is to be expected given the number of players having to withdraw from trading because of credit difficulties or insolvency. Nonetheless, companies still face considerable challenges. Top of the list remains the construction of the right trading architecture to ensure that risk-management in the organisation matches the outside environment, and is able to maximise wider enterprise value across the range of company operations (see Figure 16).

Different trading moods on either side of the Atlantic become evident.

Figure 16: **European utility leaders: where do the greatest challenges lie with regard to your trading?**

	Average
Building risk-management frameworks or systems suitable for the new trading environment	3.4
The increase of counter-party risk	3.3
Availability or retention of energy trading professionals	3.2
Preparing and implementing a strategy for emissions trading	3.1
Availability of real-time front-office trading platforms	2.9
Reassessment of appropriate allocation of capital between risk and physical assets	2.8
Communication of the energy trading strategy to shareholders	2.8
Organisational restructuring to incorporate new energy trading activity	2.8

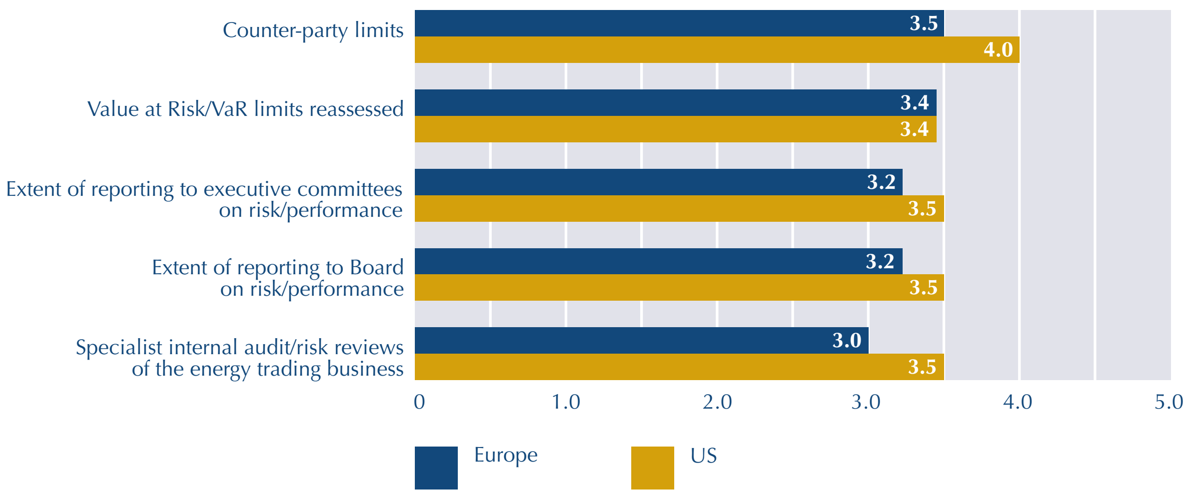
Note: Average response: Rate where: 5 = greatest challenge; 1 = least challenge
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Under scrutiny

The failure of major trading players and the resultant reduction in volume and liquidity in trading markets has prompted companies on both sides of the Atlantic to scrutinise their risk-management and trading activities. Understandably, reviewing counter-party limits has been top of the agenda and, given the greater intensity of the crisis in the US, American utility leaders have focused on this more than their European peers (see Figure 17). However, the fact that all the measures listed in the US survey gained scores above three highlights the underlining fundamental insecurity about energy trading on both sides of the Atlantic.

Further, US companies are more likely to have commissioned independent specialist audits or risk reviews of their trading operations and also reviewed reporting procedures to their executive committees and main boards. The key issue for companies on both sides of the Atlantic is, will this be enough? Given the extent of turbulence, and the importance of regaining investor confidence, outside stakeholders will seek and demand an increasing level of clarity on a company's strategies and procedures.

Figure 17: **Which of the following has received the most focus as a result of recent energy trading market turbulence?**

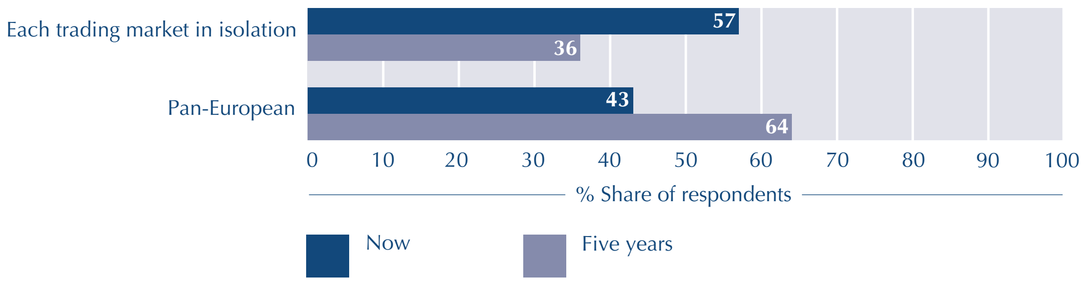


Note: Average response: Rate where 5 = greatest effect; 1 = no effect
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Looking ahead

The different energy trading moods on either side of the Atlantic are not just a reflection of the varying impact of the crisis on US and European companies. They also reflect the different stages of trading market evolution. Historically, the US wholesale energy market has been more developed than in Europe, but there are now limits to how far it can evolve, given the regulatory influence of individual state authorities and transmission constraints. In Europe, on the other hand, companies have been playing 'catch-up', but the effect of recent events, allied with the potential for a more pan-territorial approach, might signal a geographical shift in the centre of gravity of the energy trading market evolution (see Figure 18).

Figure 18: **European utility leaders: how does your company currently manage its trading books across Europe, and how do you expect to do so in five years' time?**



Note: Total % responses; select one now and one in five years
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Certainly, European utility leaders are much more optimistic on the prospects for an expanded trading market crossing state borders. A fifth of European utility leaders expect to widen their trading focus, compared to 5 per cent of US respondents. A higher proportion (40 per cent against 26 per cent) also still think it is likely that pure traders, without asset backing, will be part of the scene within the next five years. However, the overall feeling of respondents has moved against the likelihood of pure traders (see Figure 19).

Figure 19: **How likely will be the emergence of significant pure traders without asset backing in the next five years?**

	2002	2003
Unlikely	37	60 (74)
Likely	36	30 (16)
Highly likely	22	10 (10)
Don't know	4	

Note: Total % responses
US response in parentheses. Totals may not equal 100 per cent due to rounding.
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Environmental shape

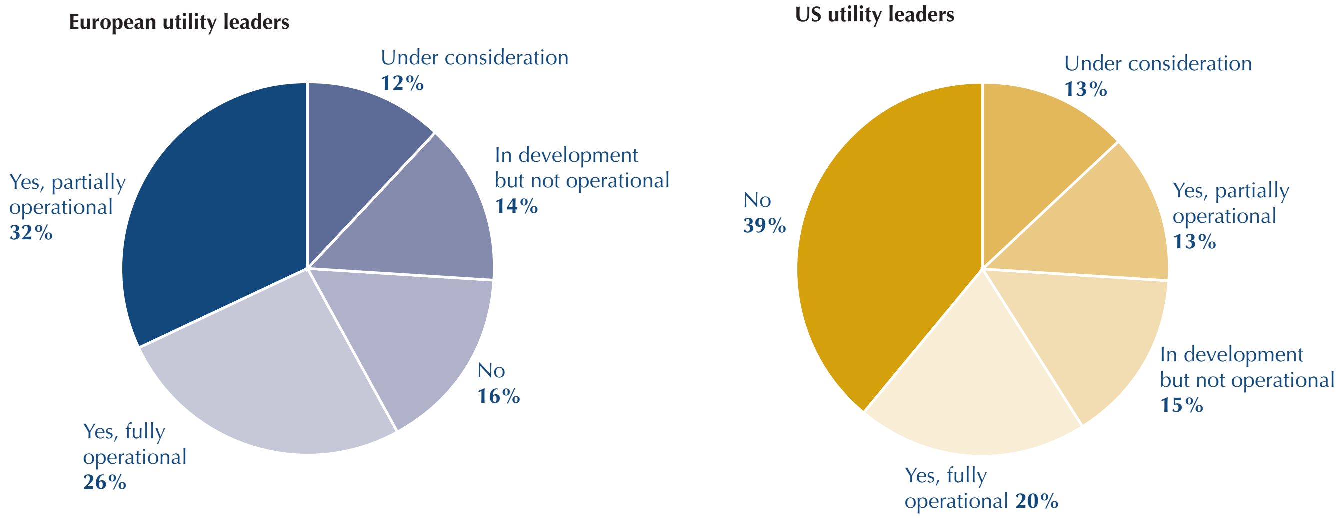
Environmentalism presents both an opportunity and a challenge to energy utility companies. A sustainable environmental footprint can deliver business advantage, with enhancements to efficiency, competitiveness and brand. The wrong environmental shape could leave utility companies with stranded assets, as regulatory pressure increasingly demands cleaner sources of energy and higher overall environmental performance.

Searching for strategy

In contrast to leaders in other sectors, utility companies have been slow to develop robust environmental strategies. They have been more ready to see the 'risk value' rather than the 'performance value' of environmentalism. Climate change forms a key part of environmental strategy. The proportion of European utility leaders reporting that they have a strategy for climate change has increased from 50 per cent to 58 per cent over the last year. Even so, only one in four companies claim that their strategy is fully operational (see Figure 20). US companies have been slower still to embrace such strategies, with one in five utility leaders reporting that they have a fully operational strategy. Indeed, 52 per cent of US utility leaders either have no strategy or say that it is still under consideration.

In Europe, the majority of the industry is seeking to implement some form of strategy that addresses climate change issues. Only 28 per cent have yet to develop any work in this area. However, in common with their US peers, it is clear that regulatory pressure rather than business strategy is the main spur to action (see Figure 21). Regulation is by far the single most important motivation for both overall greening of their business models and, more specifically, developing renewable energy sources.

Figure 20: **Do you have a strategy for climate change?**



Note: Total % responses
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

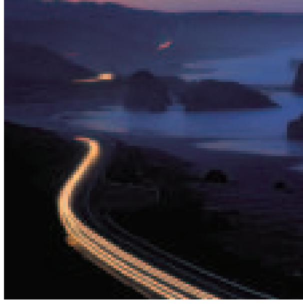


Figure 21: **What do you predict will be the greatest driver of environmental greening of your business models?**

	Average
Regulatory pressure	5.0
Social responsibility pressures (e.g. FTSE 4 Good, DJ Sustainability Index)	3.8
Consumer market pressures	3.8
Technological advances (fuel cell technology, wind, solar, etc.)	3.2
Competitor activity from within the utilities industry	3.1
Potential encroachment of green technology from players in other industries	2.0

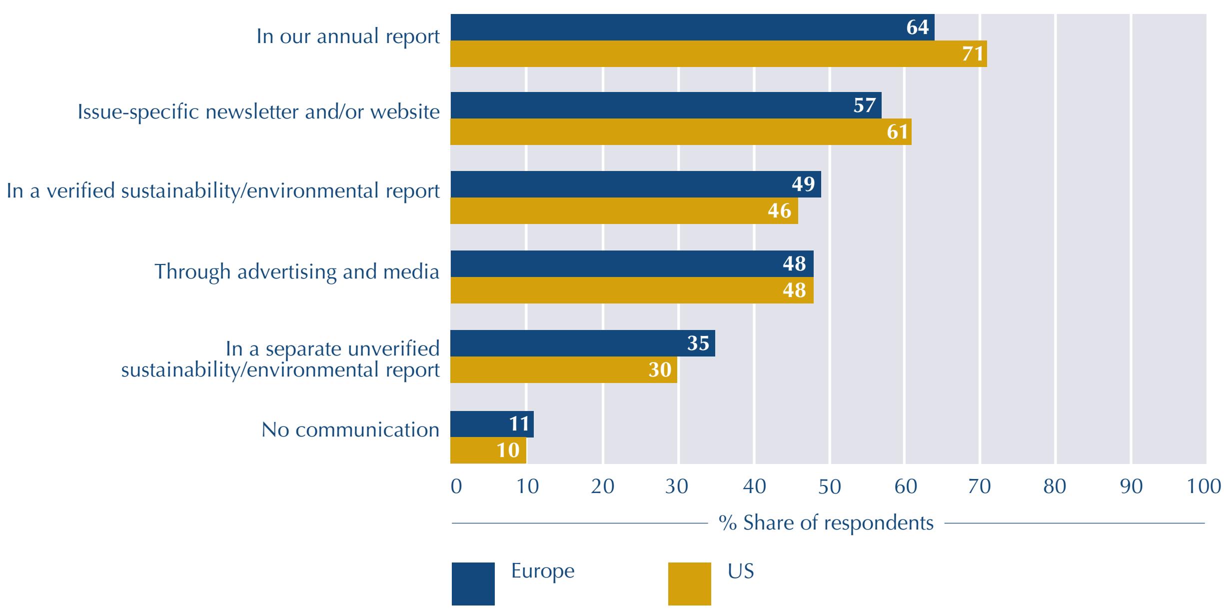
Note: Average response: Rank where: 6 = greatest driver; 1 = not a driver
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Communicating environmental performance

Although there is a mismatch between the US and Europe in the extent to which utility companies have developed climate change strategies, US utilities appear to be much more in sync with their European counterparts in their views of how sustainability initiatives and environmental performance is best communicated. Just under half of utility leaders in both continents say they currently produce or plan to produce a verified sustainability or environmental report (see Figure 22). Rather more US utility leaders than European respondents see such issues as being included in the company annual report and in specific newsletters or

Nearly half of companies on both sides of the Atlantic also see marketing potential through the use of advertising and media relations. But these responses from companies reflect future intent as well as current practice, and it is clear from the responses on actual implementation of strategy that companies are yet to do the walking as well as the talking. Addressing the challenges of differentiating both company and product will require a robust and open management.

Figure 22: **How do you plan/are you communicating on sustainability/environmental performance?**



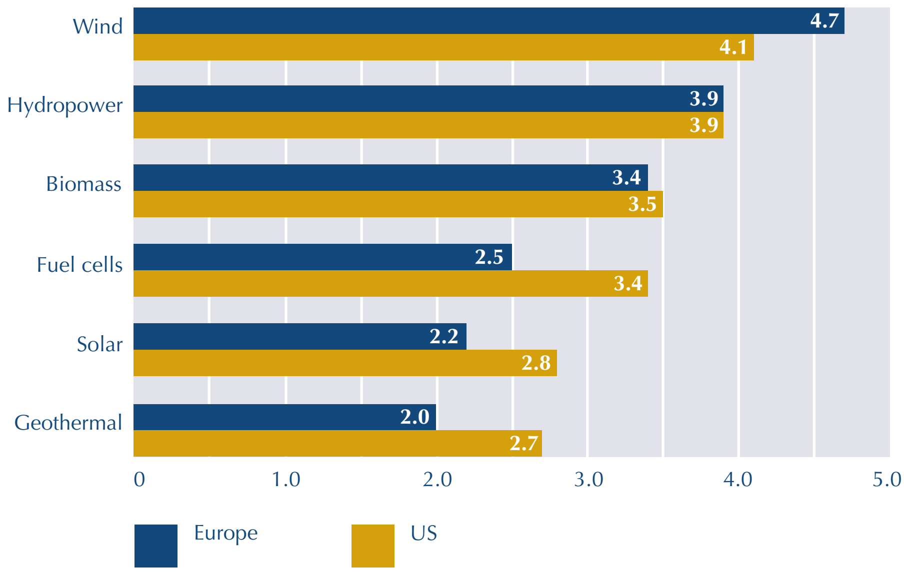
Note: Total % responses; select all those that apply
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Investing in renewables

The development of renewable energy sources is one of the clearest environmental pressure points by regulators on utility companies. EU Directive 2001/77/EC seeks to secure 22.1 per cent of EU electricity production from renewables by 2010 and the percentage is higher in countries with climates that favour the development of such energy sources. Similarly, the UK government points towards an ongoing focus on emissions reductions and renewables in its recently released Energy White Paper, 'A commitment to a carbon-lite economy'. Regulatory influences are reflected in the high proportion of European utility leaders indicating investment in renewables. Approaching three-quarters (71 per cent) of respondents favoured wind power, with a further half and around a third respectively (31 per cent), putting hydropower and biomass at the top of their choice of renewables (see Figure 23). Of course, the pattern of responses in part reflects the suitability of some of these sources in the territories in which their company operates.

The proportion of companies highlighting specific renewable sources in the United States looks, at first sight, rather less than in Europe. No single source dominates to the extent that wind does in Europe. However, a significantly greater proportion of US utility leaders report that their companies are looking or would look to biomass, fuel cells, solar and geothermal energy. Indeed, twice as many US utility leaders as European report interest in fuel cells, a potential breakthrough technology that is not geographically dependent. Interest in the development of specific sources of renewable energy appears broadly comparable on both sides of the Atlantic, although it should be emphasised that these figures include companies which might invest as well as those with actual current investments in renewables.

Figure 23: **Which source of renewable energy would you invest/are you most heavily investing in?**



Note: Average response: Rank where: 6 = greatest investment; 1 = least investment
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

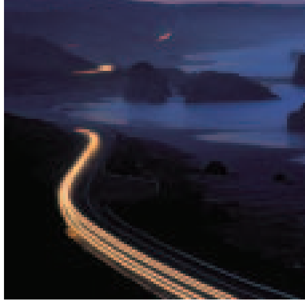
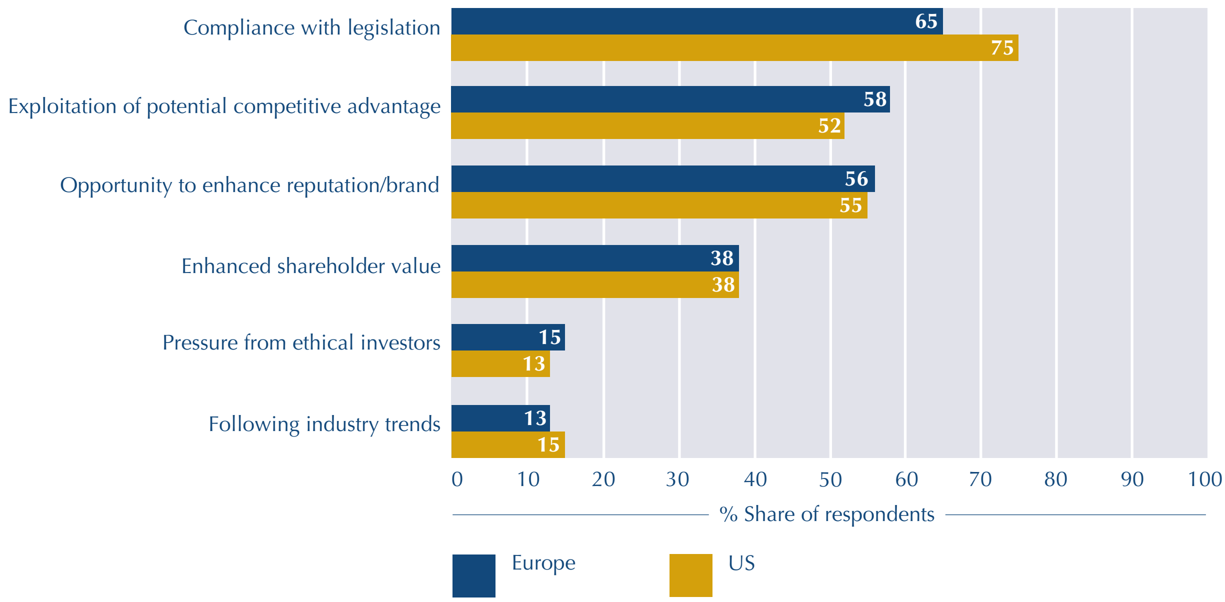


Figure 24: **For what reasons would you move/are you moving towards increased renewable energy?**



Note: Average response: Rated in order of preference
Source: PricewaterhouseCoopers, *Movers and Shapers 2003 – Europe*

Interestingly, when asked about the reasons for developing renewable energy sources, regulatory obligations still dominate, but their predominance over more business-driven influences diminishes compared to when the same utility leaders were asked about their motivations for a general move towards a greener strategy. It would appear that as companies engage in tangible aspects of environmentalism the business benefits become clearer. More than half of companies in both Europe and the US saw opportunities to gain competitive advantage and enhance their brand, while more than a third believed renewables would add to the value they are able to deliver to shareholders (see Figure 24).

As companies engage in tangible aspects of environmentalism the business benefits become clearer.

These findings indicate that slowly the boundaries and the tensions between environmental and business strategy are eroding and that companies are identifying that one can reinforce the other. The achievement of true synergies between business and environmental performance will be dependent on the extent to which companies can succeed in integrating environmentalism into strategy from the beginning, rather than seeing it as an add-on or a regulatory requirement.

Contacts

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