



GETI

Global Energy Talent Index



The Global Energy
Talent Index Report

2022



Welcome to GETI 2022

The Global Energy Talent Index (GETI) was launched five years ago to provide insights into the state of the industry that would help energy companies recruit, retain and grow their skills base. GETI has since drawn on insights from tens of thousands of professionals to develop a comprehensive window into the state of the industry.

This year's report charts an industry undergoing unprecedented upheaval. Increasing international consensus on climate change and pandemic-driven remote working trends accelerated the technological transformation of the energy industry and demand for talent. Energy convergence is driving cross-sector skills migration. This is spurring a technical talent shortage and putting professionals in the driving seat.

We have chosen, this year, to examine what a radical realignment of the workforce will mean for recruitment and retention across the energy industry. This report is in many ways a tale of two eras, capturing half a year in lockdown followed by a second half in which the industry rebounded rapidly as the world began to emerge from the pandemic. This has created a mixed picture of the industry's fortunes and a continuing cloud of uncertainty over its future. Yet as the dust settles on major turbulence, some clear trends are starting to take shape.

- The balance of power has tilted towards professionals. Cross-sector convergence around green energy has created a transient workforce with transferrable skills. Technological transformation and the energy transition have created a technical skills gap. Meanwhile, a post-pandemic recovery has seen salaries rebound rapidly. This perfect storm of circumstances means employees are now freer to transfer across borders and sectors.
- Clean energy is spurring a technological revolution – and a technical skills gap. Decarbonisation accelerated technological transformation while the post-pandemic legacy of remote working also accelerated digitalisation of business operations. Technical skills are now the most transferrable skills for all energy professionals and the most important for future-proofing all energy workforces. This is creating an industry-wide war for tech talent.
- ESG is now a key career consideration – professionals are increasingly moved by the mission more than the money. Environmental awareness and support for work/life balance increased during the pandemic. Most workers now cite ESG as a factor in whether to remain or resign from their company, while lifestyle and family increasingly influence employee relocations. The evidence points to a belief-driven workforce that values their organisation's ESG performance and work/life balance over financial remuneration.



These trends all represent a double-edged sword for the industry. An increasingly empowered, mobile workforce with transferrable skills could theoretically produce a skills exodus but also opens the door to a fresh wave of outside talent. A technical skills shortage could hamper innovation and adaptability, but cross-sector skills synergies offer an opportunity to refresh the talent pipeline. Environmentally conscious employees could spell trouble for oil and gas majors – or an opportunity to harness green energy innovations to diversify their people as well as their portfolio.

Hiring managers can turn these trends to their advantage, by considering the following actions.

- **Fast-track career progression:** With career progression the top driver for departing talent, learning and development is increasingly critical to recruitment and retention as well as retraining. Organisations should offer learning and development programmes designed to upskill and fast-track professionals for promotion. With a workforce that prioritises mobility over stability and increasingly transcends sectoral silos, employers should also offer more support and opportunities for internal and international transfers.
- **Make ESG a brand differentiator:** Incorporate green energy innovations into the employer brand. Companies should offer new recruits the chance to drive innovation and decarbonisation efforts and offer internal transfers to green energy divisions.

Building workplace benefits around health and family could also create a virtuous circle of recruitment – attracting younger recruits and women, thereby boosting diversity, skills and social performance.

- **Focus on innovation:** Innovation is a key driver for career changers and should become a key differentiator for employer brands. Legacy sectors should promote diversification of portfolios and digitalisation of operations. New innovations from green ammonia to AI are instrumental to attracting STEM skills from other industries including technology.

The GETI report was conceived to help readers understand the changing composition and characteristics of the energy workforce and navigate the challenges in developing a skills base fit for an evolving energy landscape. In an unparalleled period of flux, this aim remains more important than ever.

Of course, the success of the entire initiative rests upon the thousands of energy professionals who, in sharing their insights and experiences, help us ensure each year's report offers an unparalleled window into the state of their industry.

On behalf of everyone at Airswift, thank you.

Janette Marx,
Chief Executive Officer
at Airswift

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Methodology

This is the sixth edition of the annual Global Energy Talent Index (GETI), the energy industry's most established and comprehensive global workforce trends survey. Building on the success of the five previous volumes, GETI 2022 draws on the views of almost 10,000 energy professionals of 144 different nationalities spanning 161 countries.

The 84-question survey was open for eight weeks and closed in December 2021.

Airswift, Energy Jobline and a selection of sector experts subsequently analysed the data to pinpoint the key insights and themes to emerge from the responses across all sectors. Airswift additionally analysed key industry and internal data in the following three tiers:

- Active contractor headcount
- Active candidates looking for their next role
- Third party data benchmarks

For ease of reference, salary and rate data has been averaged across all countries, but more specific salary information can be provided upon request.

TALENT IN TRANSITION

GETI's scope extends far beyond that of a salary survey to encompass the major threats and opportunities facing the global energy industry. Recent editions examined subjects ranging from the impact of digitalisation on the workforce to how best to find opportunity among the vast uncertainty facing the sector in recent years.

This year, it investigates a sea-change in the industry with trends such as COVID-19, climate change and an international skills shortage precipitating a major technological transformation, energy transition and changing ways of working. The industry faces continued economic uncertainty with new COVID-19 variants emerging alongside geopolitical tensions and ongoing debate around whether nuclear and gas should be classified as sustainable energy sources.

Rapid industrial realignment signals a radical reordering of workforce skills, priorities, values, and expectations. This could create demand for new kinds of talent and transform the profile of the future energy workforce in unexpected ways.

How is this period of unprecedented upheaval changing the behaviour and expectations of the workforce and to what extent have companies adapted to this shift? Do employer brands, values and priorities still align with those of their workers? How does this affect the ability of energy organisations to retain and recruit talent they need to navigate this changing energy landscape? As each sector undergoes a transformation, where are the biggest skills gaps and skills overlaps?

GETI 2022 aims to help readers shed light on these questions and many others. Crucially, it offers guidance and support to professionals and hiring managers alike as they enter an unprecedented period of flux.

Airswift hopes this report offers valuable insights for readers and invite anybody requiring further data, analysis, or insight to contact us at enquiries@getireport.com.

About Airswift



Airswift is an international workforce solutions provider within the energy, process and infrastructure industries. With more than 7,000 contractors and 700 employees in over 60 offices worldwide, our talent pool and geographical reach are unmatched in the industry.

For 40 years, Airswift has been passionately transforming lives through the workforce solutions we provide, including talent acquisition, global employment and mobility, managed solutions and consulting.

We provide strategic support to our customers, resulting in trusted partnerships that are aligned and efficient. Our team of experts are ideally positioned to meet your needs, whether that is finding top talent, mobilising people around the world, implementing an agile workforce strategy or improving decision-making for workforce planning.

For more information, please contact us or visit our website.

geti@airswift.com

www.airswift.com

Partner Directory



Energy Jobline is the leading specialist job board for the energy industry globally, hosting an audience of over 4 million professionals and working with an extensive partnership network of Societies, Publications, Corporate Employers and Recruitment Agencies. Energy Jobline advertises a large volume of the world's energy and engineering jobs mainly in the Renewables, Power, Nuclear, Oil & Gas, EV & Battery sectors.

Energy Jobline is the pioneer of energy recruitment, hosting an exclusive database. Our job board is a significant value-add to any energy employer or employee on a global spectrum.

We have a highly engaged audience who use Energy Jobline for not only their job search, but also the latest energy news, training, events and contractor services.

Whether you are looking for a new job opportunity or looking to hire the best talent in the energy market, please contact us to discuss in more detail.

geti@energyjobline.com

www.energyjobline.com



Ducatus Partners delivers executive search, market mapping and leadership consulting and advisory services, operating from its offices in London, Houston, Aberdeen, and Dubai. Ducatus Partners has experience across the entire value chain of the energy and private equity industries; partnering with the world's largest integrated energy companies to technology start-ups and the advisors and financiers that support them. For more information please visit:

<http://www.ducatuspartners.com/>



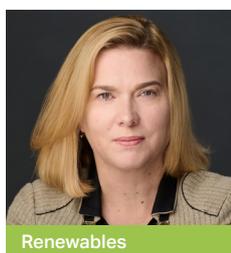
Meet the experts



Janette Marx,
*Chief Executive Officer
at Airswift*



Josh Young,
*Director at Energy
Jobline*



Johanna Schmidtke,
*Lecturer, University of
Colorado Denver Global
Energy Management*



Kathleen McAllister,
*Corporate board director
and former CEO*



Fiona MacAuley,
*Chair at IOG Plc and
Non-Executive Director
at EPI Group Ltd*



Steven Brabec,
*Manager – Nuclear Project
Technical Support at
Dominion Energy*



Leon de Bruyn,
*CEO at Lummus
Technologies*



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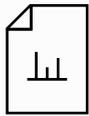


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Renewables



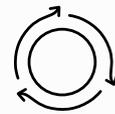
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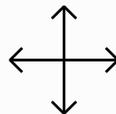
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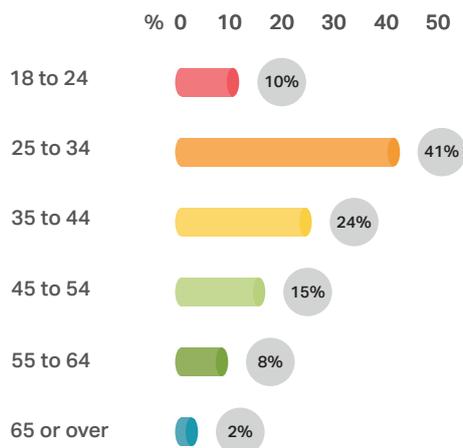


Renewables

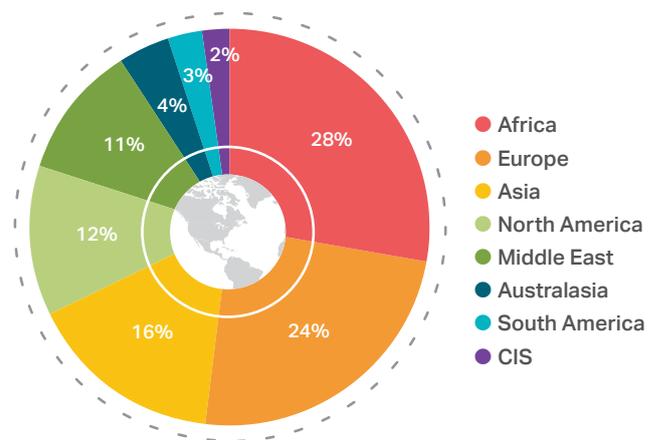
A post-pandemic rebound driven by strong financial backing and societal demand for renewables and new energy has seen a recent influx of talent and rising salaries. The convergence of the energy industry, alongside technological transformation and growing flexible working practices have created employees with transferrable skills no longer anchored in one sector or space. Facing a skills shortage and a global war for talent, renewables firms must focus on harnessing the expertise of existing employees and recruiting from outside the sector.

1. DEMOGRAPHICS

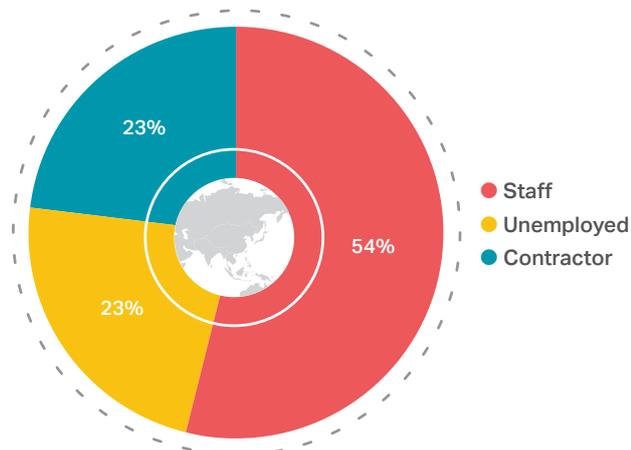
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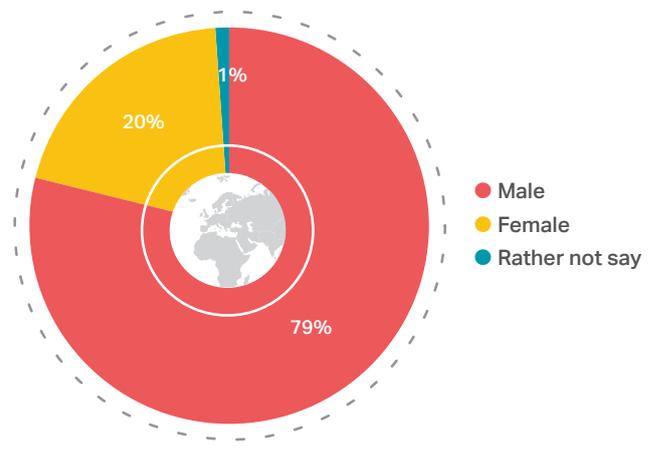
REGION



EMPLOYMENT STATUS



GENDER



2. SALARIES

The sector is seeing a post-pandemic salary bounce as lockdowns are lifted with 40 per cent reporting a pay rise and just 11 per cent receiving a pay cut. This marks a reversal of the downward trend at the height of the COVID-19 pandemic in 2020 when 35 per cent recorded a pay rise and 17 per cent received a reduction.

PERMANENT WORKER ANNUAL SALARY, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	54,086	49,138	101,591	45,237	63,058	43,704	53,097	80,006
Biomass Engineer	36,149	52,562	67,310	35,049	63,677	42,000	53,779	91,000
Business Development Manager	66,272	52,200	91,000	62,118	63,476	45,600	53,391	82,740
Civil/Structural Engineer	43,636	37,272	112,000	42,298	73,062	52,900	45,754	84,000
Commercial Manager	52,376	59,227	119,000	45,177	78,388	70,150	67,437	77,000
Construction Manager	82,438	62,801	140,000	56,471	71,098	43,050	64,190	98,000
Design Engineer	47,476	37,783	84,000	39,730	57,069	50,040	43,690	73,360
Electrical Engineer	53,100	48,718	94,500	47,989	65,608	44,600	53,856	84,700
Energy Engineer	34,988	42,271	84,000	31,318	46,589	33,000	40,131	59,920
HSE Manager	68,084	50,609	126,000	56,471	69,206	44,000	51,539	84,000
Maintenance Engineer	60,365	47,775	84,000	43,530	61,634	44,900	58,184	80,500
Marine Engineer	88,571	47,159	92,009	38,635	66,038	41,400	65,807	81,200
Mechanical Engineer	45,240	42,679	84,000	41,457	59,479	40,500	51,630	77,000
Operations Manager	68,115	58,657	91,000	44,749	73,102	51,400	63,235	86,800
Project Engineer	55,741	54,246	112,000	49,218	69,031	43,600	58,947	87,500
Project Manager	74,267	57,920	140,000	56,471	75,395	48,280	62,430	88,200
QA/QC Manager	54,340	58,189	126,000	53,648	66,829	45,800	55,927	86,800
Renewable Energy Consultant	35,693	53,978	98,000	40,942	62,748	38,650	50,182	72,800
Solar Engineer	43,122	36,031	84,000	28,236	46,019	33,000	38,017	82,100
Wind Farm Project Manager	38,006	48,774	140,000	62,118	50,741	32,700	49,222	69,300
Wind Turbine Technician	33,738	33,915	63,000	29,116	41,967	28,500	34,601	53,200



CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	374	391	522	260	532	296	505	571
Biomass Engineer	256	359	462	224	444	274	361	650
Business Development Manager	455	392	579	259	605	316	412	591
Civil/Structural Engineer	325	296	552	297	502	373	515	600
Commercial Manager	365	552	742	301	526	492	618	550
Construction Manager	531	451	594	264	636	348	618	700
Design Engineer	329	302	470	314	389	363	361	524
Electrical Engineer	362	359	528	297	552	293	515	605
Energy Engineer	254	329	477	220	470	228	515	428
HSE Manager	457	484	555	236	550	257	515	600
Maintenance Engineer	405	360	482	301	561	263	412	575
Marine Engineer	523	423	612	246	628	271	515	580
Mechanical Engineer	336	410	484	278	546	280	515	550
Operations Manager	465	417	587	212	553	352	618	620
Project Engineer	403	407	535	274	508	277	515	625
Project Manager	482	434	582	349	654	330	721	630
QA/QC Manager	391	424	524	224	603	287	567	620
Renewable Energy Consultant	268	476	466	191	452	263	412	520
Solar Engineer	304	295	351	199	467	229	361	586
Wind Farm Project Manager	311	368	501	292	609	215	721	495
Wind Turbine Technician	260	279	348	226	385	202	309	380

40%

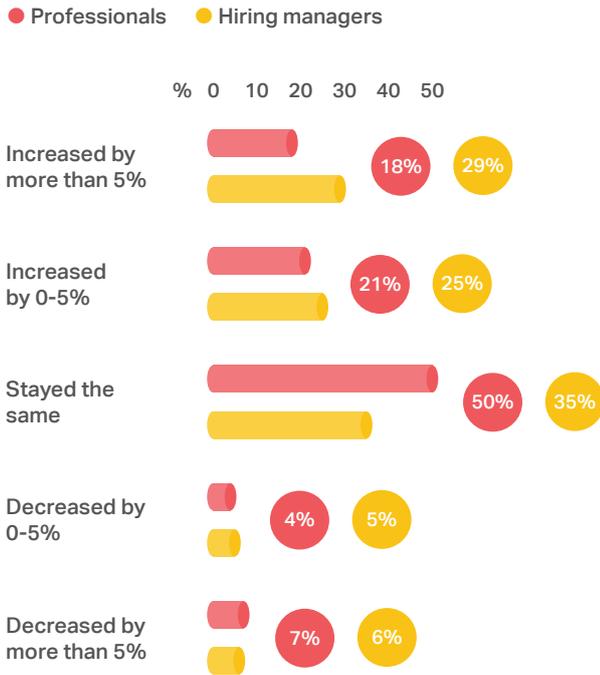
of professionals report a pay rise this year. Just 11 per cent report a reduction in salary.

54%

of hiring managers report pay increases - seven per cent more than last year.

Hiring managers offer a more positive picture with over half (54 per cent) reporting pay increases, 17% recorded a decrease last year.

PAY CHANGES IN THE LAST 12 MONTHS



Janette Marx, CEO of Airswift says: "Salaries are recovering well from the shock of the pandemic, as the sector is buoyed by growing investment, and recent climate commitments. The industry is on an upward trajectory, and we anticipate a corresponding rise in wages."

61%

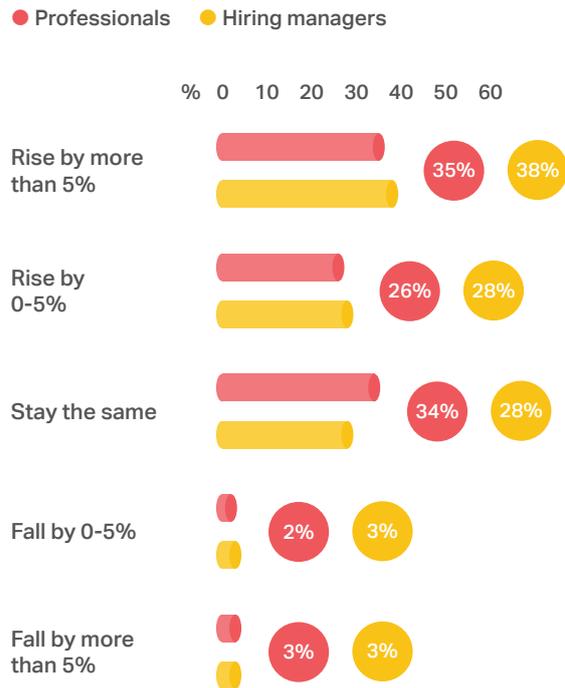
of professionals expect a pay rise next year - markedly less than before the pandemic.

However, pessimism over pay has increased for the past three years. Sixty-one per cent of professionals expect a pay rise next year, six per cent down on the previous year and markedly less than the 72 per cent anticipating an increase before the pandemic in 2019. This indicates the threat of further lockdowns is denting employee optimism. However, rising salaries show that the reality on the ground is more positive.

"The industry is on an upward trajectory, and we anticipate a corresponding rise in wages."

– Janette Marx

PAY EXPECTATIONS FOR THE NEXT 12 MONTHS



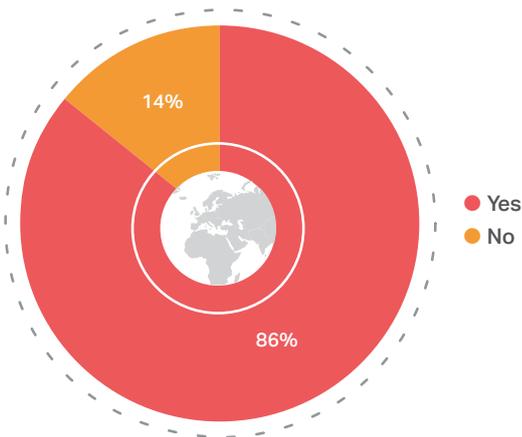


3. GLOBAL MOBILITY

The proportion of renewables respondents considering relocating to another region for work has remained steady in recent years. Eighty-six per cent would consider moving in the next three years yet 52 per cent say their employer does not offer this option, indicating an increasingly mobile workforce could pose a threat to talent retention.

Companies in the sector recognise the trend and are taking steps to support global mobility, with 18 per cent of staff given support with housing/relocation and 30 per cent receiving a travel allowance as part of their employment package.

WOULD YOU CONSIDER RELOCATING TO ANOTHER REGION FOR YOUR JOB?



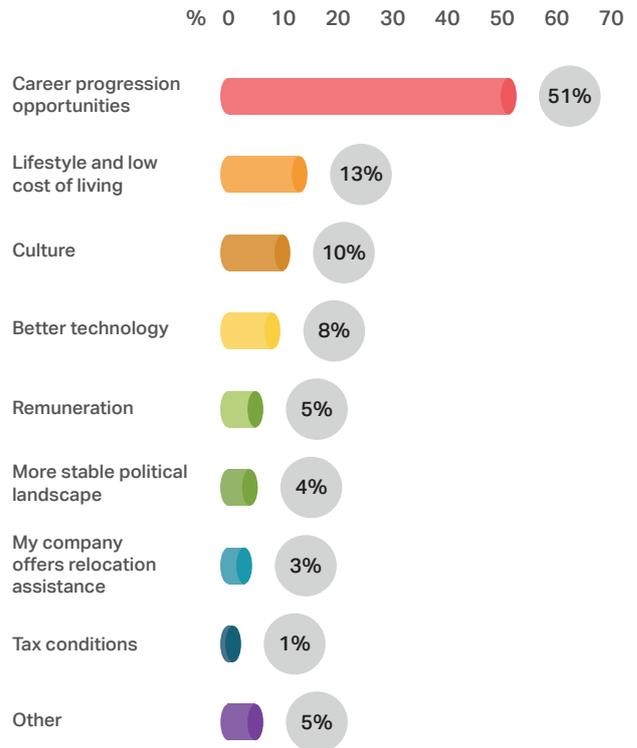
A globally mobile talent pool may also result from rising use of contractors as companies flex their workforces for a spate of new projects. Almost half of hiring managers say that over 20 per cent of their workforce are hired on a contract basis and most expect this to increase in the coming three years. The industry is clearly tapping into the upward trend in global mobility with 31 per cent of the current workforce composed of expats.

Marx says: "As more renewables projects come online, employers are looking to flex their workforce with relocation support for staff and greater use of contractors. Not only do professionals increasingly value flexibility, but contractors now form a key part of the total talent solution to support an increasingly project-based, globalised industry."

Europe has cemented its position as the preferred destination for relocation since last year. Thirty two per cent of those open to relocation would favour a move to Europe, with the Middle East second choice on 21 per cent and Asia and Australasia a distant third on 11 per cent. This marks a shift from the previous year with North America dropping out of the top three destinations and the Middle East rising from fourth to second choice, as the US travel ban began to bite and new projects launched in the Middle East.

Opportunities for career progression remain the main impetus for international transfers, although lifestyle and low cost of living have overtaken culture as the second biggest driver.

WHAT IS YOUR MAIN REASON FOR BEING ATTRACTED TO THIS LOCATION?



Josh Young, Director of Energy Jobline, says: "Europe is increasingly attracting a global talent pool as major government capital is ploughed into renewables alongside private investment. Europe will continue to lead the pack due to its strong support for the industry."



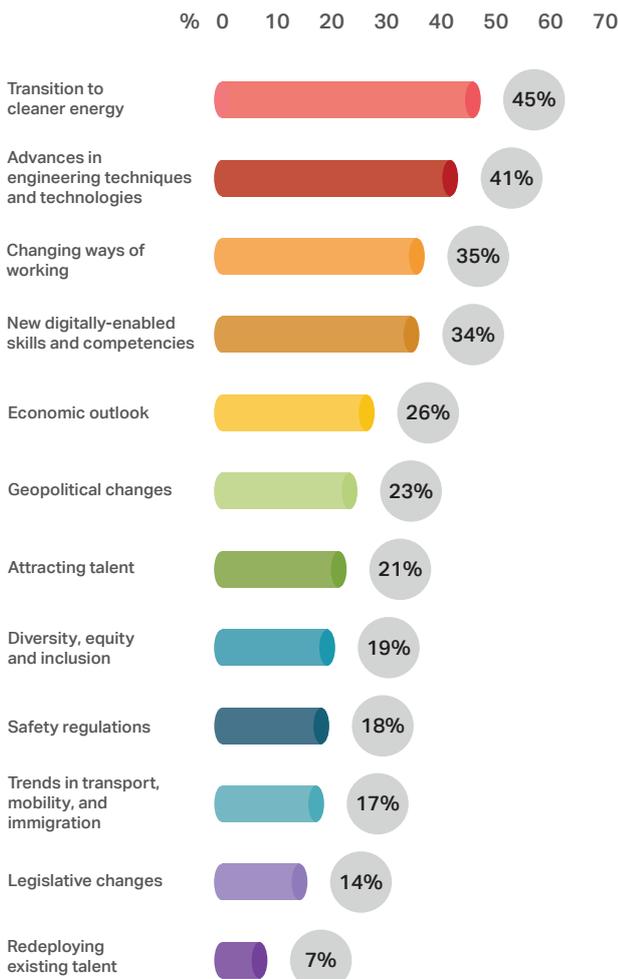
4. CHALLENGES AND OPPORTUNITIES

Looking ahead, respondents see the greatest promise in sector-wide technological innovation and the energy transition. Forty-five per cent cite the move to cleaner energy as among the greatest opportunities facing the sector over the next three years while 41 per cent pinpoint advances in engineering techniques and technologies. The transition to cleaner energy has risen from second to first place since last year, which could reflect new international agreements on climate change and an associated wave of investment in renewables.

“As well as being an opportunity for major growth, responsibility for delivering the global energy transition also places great demands on the sector.”

– *Janette Marx*

MOST IMPORTANT OPPORTUNITIES OVER THE NEXT THREE YEARS



Johanna Schmidtke, Lecturer, University of Colorado Denver Global Energy Management, notes: “The convergence of energy around renewables opens the door to a wave of new engineering techniques from conventional sectors such as offshore oil and gas, which have clear applications for renewables sub-sectors like offshore wind and hydrogen. Conventional energy businesses already have many of the engineering capabilities that renewables firms need so there is an opportunity to mass introduce techniques and tools in the new markets.”

Interestingly, as the world economy recovers from the initial effects of the pandemic, the transition to cleaner energy has displaced economic issues as the second biggest challenge facing the industry. Thirty per cent of respondents identified this as among the biggest challenges, while last year economic outlook and capital availability were joint second.

Marx observes: “As well as being an opportunity for major growth, responsibility for delivering the global energy transition also places great demands on the sector. This will require an unprecedented pace of innovation and development, and a significant influx of new skills.”

29%

of respondents cite changing ways of working as a significant challenge.

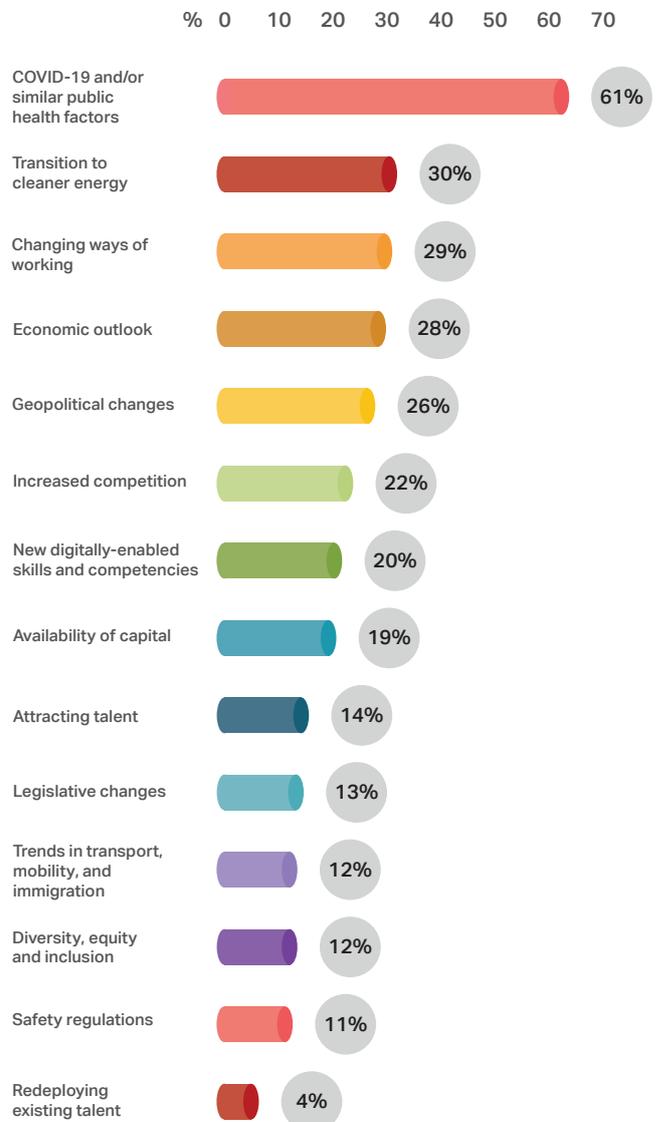


“The convergence of energy around renewables opens the door to a wave of new engineering techniques from conventional sectors such as offshore oil and gas.”

– Johanna Schmidtke



MOST IMPORTANT CHALLENGES OVER THE NEXT THREE YEARS



With stay-at-home policies transforming the nature of work, changing ways of working is also cited as a significant challenge by 29 per cent of renewables respondents. Schmidtke says: “The pandemic-era shift to remote working has meant entire teams working together that have never met before, creating problems coordinating projects. It’s also difficult to plan who and where to hire years ahead without knowing who will be locked down or have travel restricted again in the next quarter.”



5. SKILLS

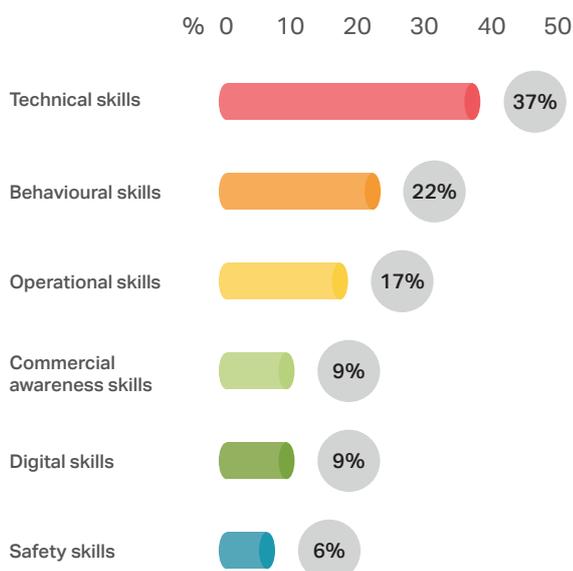
The accelerating pace of technological innovation across sectors means technical skills are now the most important for creating a flexible, future-proof workforce for 37 per cent of respondents, followed by behavioural skills on 22 per cent.

With everything from working habits to technology in a state of flux, nearly half of hiring managers also pinpointed adaptability and adapt to change as the key behavioural skill they look for when hiring talent from outside of the sector.

This closely aligns with the skills of the existing workforce and is cited by 46 per cent of workers as the second most important transferrable behavioural skill they possess – a promising sign in terms of the types of people already working in renewables but also a clear indicator that hiring managers believe an adaptable workforce to be absolutely critical to success over the coming years.

Marx says: “The sector is undergoing a revolution from cross-sector energy convergence to the digital transformation needed for everything from smart design to predictive maintenance of infrastructure. The ability to embrace change is now one of the key skills for professionals looking to progress their careers.”

MOST IMPORTANT SKILLS FOR A FUTURE-PROOF ENERGY WORKFORCE



“A perfect storm of circumstances has produced major skills shortages in specialist technical fields.”

– Josh Young

Rapid technological innovation means engineering is now the most sought-after technical skill for 57 per cent of hiring managers when recruiting outside talent. Yet, 49 per cent of existing professionals also ranked engineering as the most important transferrable technical skill they possess.

Schmidtke notes: “Engineering skills are vitally important to an industry in technological transition. It’s not a surprise that hiring managers continue to bring them in from the outside – the appetite for engineers won’t go away anytime soon.”

Of course, this alone isn’t enough to plug that gap. Sixty-three per cent of respondents say the best way to get the necessary skills to handle the challenges of a changing energy landscape is to improve in-house learning and development, followed by retraining existing employees. Only 36 per cent believe recruiting from outside the sector should be the priority.

Young says: “A perfect storm of circumstances including the retirement of some of the existing cohort, a pandemic-driven skills exodus and digital transformation has produced major skills shortages in specialist technical fields. And now that both oil and gas and renewables are thriving, you suddenly have technical talent moving in both directions.”

63%

of respondents believe in-house learning and development can provide the skills to adapt to the changing energy landscape.



TECHNICAL SKILLS DESIRED BY HIRING MANAGERS VS. POSSESSED BY PROFESSIONALS

● Desired by hiring managers ● Possessed by professionals



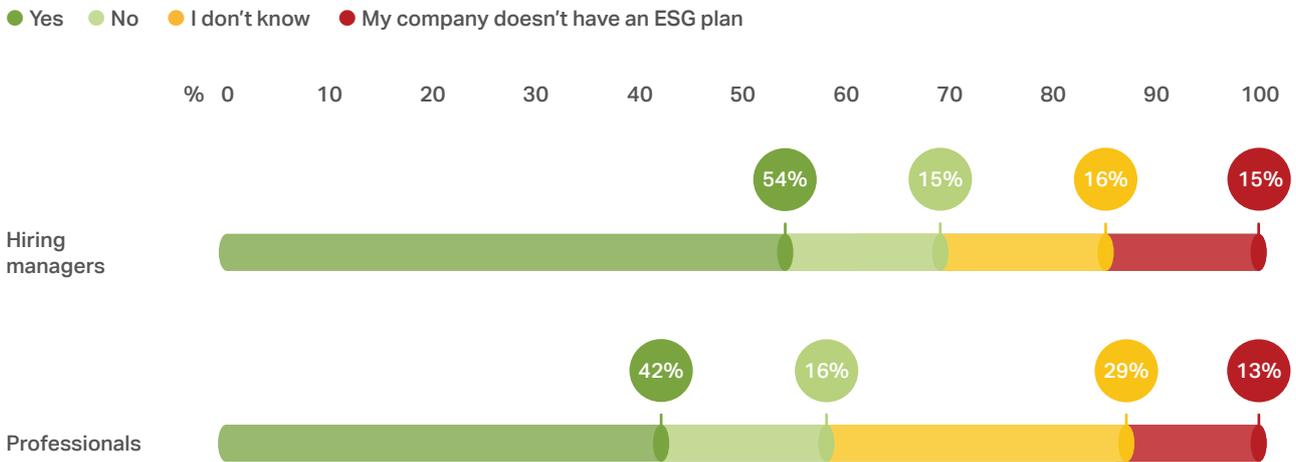


6. ESG

With the sector’s pivotal role in combating climate change, satisfaction with industry environmental, social and corporate governance (ESG) is relatively high. Respondents award the sector an average 3.46 out of five stars for both environmental and social performance and 3.5 stars for corporate governance. Forty-seven per cent say the organisation has a sufficiently robust ESG policy while only 15 per cent disagree.

Respondents award the sector an average 3.46 out of 5 stars for both environmental and social performance and 3.5 stars for corporate governance.

IS YOUR COMPANY’S ESG PLAN SUFFICIENTLY AMBITIOUS AND ROBUST?



Sixty-one per cent of all respondents say their employers’ actions on ESG are a major factor in their decision to join or remain with a business. Interestingly, ESG is the second biggest draw for 15 per cent of those considering leaving for another energy sector within three years. This could reflect the pivot towards decarbonisation among other sectors alongside concerns over the environmental impact of composite and critical components in renewables. ESG is also the third most important driver for the majority who would consider leaving energy for another industry over the next three years.

47%

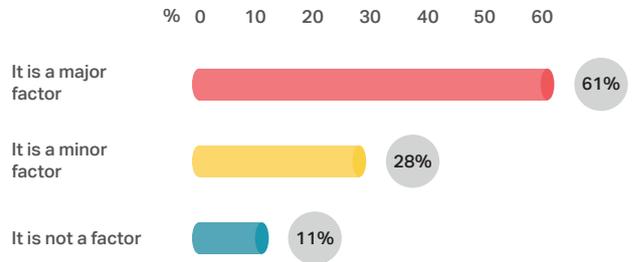
of respondents believe their organisation’s ESG policy is sufficiently robust.



“There is a great opportunity to leverage digital collaboration and remote working to improve workforce diversity. Primary care givers can now materially contribute to engineering or budgeting of a site without physically visiting.”

– Janette Marx

DOES ESG ACTIVITY INFLUENCE YOUR LIKELIHOOD OF JOINING OR REMAINING WITH A BUSINESS?



Evidence suggests the sector could also boost its ESG profile and talent retention by improving its performance on diversity. Only 15 per cent of women surveyed claim to get enhanced maternity leave, just three per cent of total respondents receive on-site childcare facilities and 48 per cent of women are not offered remote working/flexible hours as part of their employment package. This could be affecting female career progression as women are more likely than men (58 per cent vs 49 per cent) to cite proximity to family as a barrier to relocation. Despite renewables outperforming other sectors on diversity with 20 per cent female representation among GETI respondents, this indicates the sector could further improve diversity with more family-friendly working practices. Changing ways of working is cited as the third biggest opportunity for the sector over the next three years, and could represent a key opportunity to improve the sector’s social performance.

61%

of respondents say their employers’ actions on ESG are a major factor in their decision to join or remain with a business.

Marx says: “There is a great opportunity to leverage digital collaboration and remote working to improve workforce diversity. Primary care givers can now materially contribute to engineering or budgeting of a site without physically visiting. Technologies such as remote risk-based monitoring and unmanned floating substations for windfarms are also reducing site visits and making the role more open to remote workers.”



7. ATTRACTING AND RETAINING TALENT

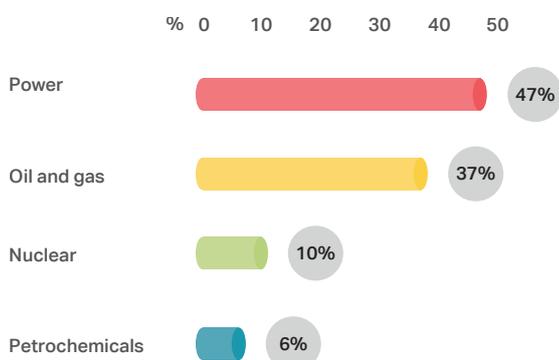
Cross-sector energy convergence means that skills are increasingly transferrable between energy industries, enabling renewables employers to widen the talent net. Twenty-one per cent of the renewables workforce joined from another sector in the last 18 months and the majority switched from either oil and gas or power, with 28 per cent coming from each.

Schmidtke comments: “Renewables companies used to hire mostly from within the industry but with demand exceeding the supply of in-house talent, firms increasingly look for raw skills rather than industry experience. This could be, for example, an electrical engineer working in an oil refinery.”

“Today’s workforce can more seamlessly move between energy sectors so renewables employers need to emphasise innovation and career progression.”

– Johanna Schmidtke

WHICH ENERGY SECTOR WOULD YOU BE MOST INTERESTED IN SWITCHING TO?



“With demand exceeding the supply of in-house talent, firms increasingly look for raw skills rather than industry experience.”

– Johanna Schmidtke

Yet the increasing skills overlaps between sectors could also intensify cross-sector competition for skills. Three-quarters of respondents would consider switching to another energy sector in the next three years with power the top choice for 47 per cent, closely followed by oil and gas on 37 per cent. Thirty-one per cent cited opportunities for career progression as the main motive for switching sectors, followed by innovation (14 per cent) and ESG (15 per cent), which leapfrogs technology as the third biggest driver as workers become increasingly environmentally and socially conscious.

47%

of those who would consider switching sectors favour a move into power.

Schmidtke comments: “With the energy convergence epitomised by recent partnerships between oil, electric and renewables firms on floating offshore wind or green hydrogen, there’s a closer synergy between energy sectors and their required skillsets. All energy firms are now increasingly adopting cleaner energy and ESG, making them more attractive to younger workers. This means today’s workforce can more seamlessly move between energy sectors so renewables employers need to emphasise what they can offer in terms of innovation and career progression.”

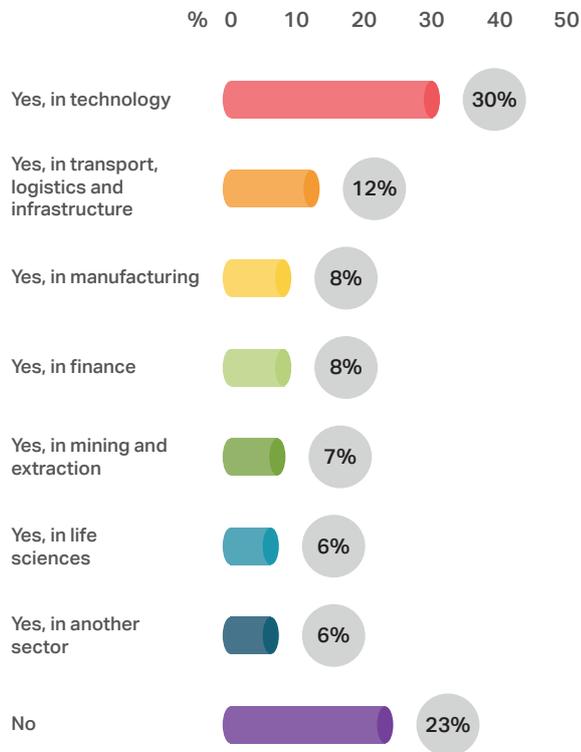


“The tech industry is appealing because it was one of the few sectors that continued growing throughout the pandemic.”

– Josh Young

Young says: “The tech industry is appealing because it was one of the few sectors that continued growing throughout the pandemic. With continuing technological transformation, many renewables workers now have crossover skills and the renewables sector is also attracting talent from the tech industry. This is a young workforce that cares about self-advancement, innovation and sustainability and this is what employer brands need to focus on.”

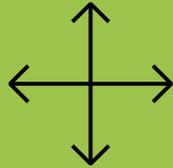
WOULD YOU CONSIDER MOVING TO A ROLE IN A NON-ENERGY SECTOR IN THE NEXT THREE YEARS?



77%

of respondents would consider leaving the energy industry in the next three years.

As the sector undergoes digital transformation, we are seeing an increasing interchangeability of both skills and workers between technology and energy. Thirty-seven per cent of the renewables workforce joined from a non-energy sector in the past 18 months while 77 per cent would consider moving to an outside sector in the next three years with technology the top choice. Opportunities for career progression was the main reason for 28 per cent of respondents followed by innovation on 15 per cent.



Summary Renewables

The industry is now undergoing a revolution, driven by shifting ways of working, technological innovation, and an accelerating energy transition.

The convergence of energy sectors around sustainability and the growing overlap between energy and technology means renewables recruiters can tap into a wider talent pool but also face wider competition for skills. Technological transformation and the energy transition therefore pose both a risk and an opportunity.

Yet renewables businesses can turn this state of flux to their advantage. The workforce of the future values innovation, self-development, flexibility and ESG. Firms should promote their adoption of sustainable new technologies and new ways of working alongside the potential for rapid career advancement to attract this new generation of technology talent.







GETI
Global Energy Talent Index

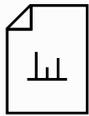


energyjobline

Oil and Gas



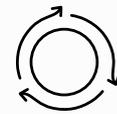
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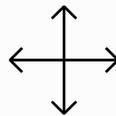
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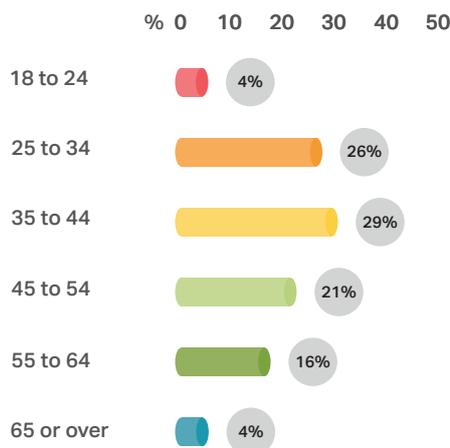


Oil and Gas

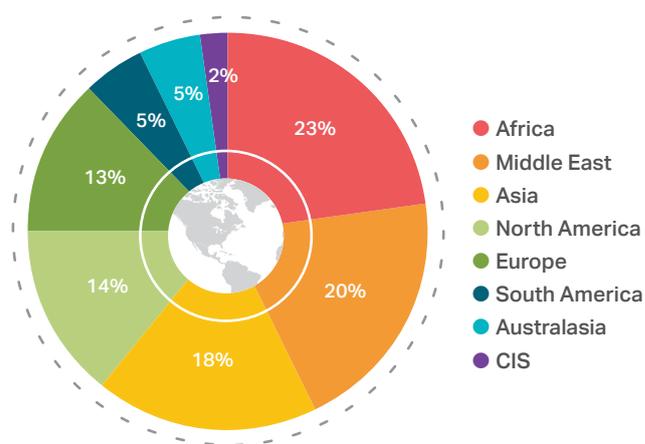
The oil and gas sector has long been characterised by its ability to bounce back from downturns, and the pandemic has proved no different. The sector continues its digital transformation and energy transition journeys with evident success – but not without challenges. With a more mobile, multi-skilled workforce, the equation for attracting and retaining the best talent grows more complex than ever.

1. DEMOGRAPHICS

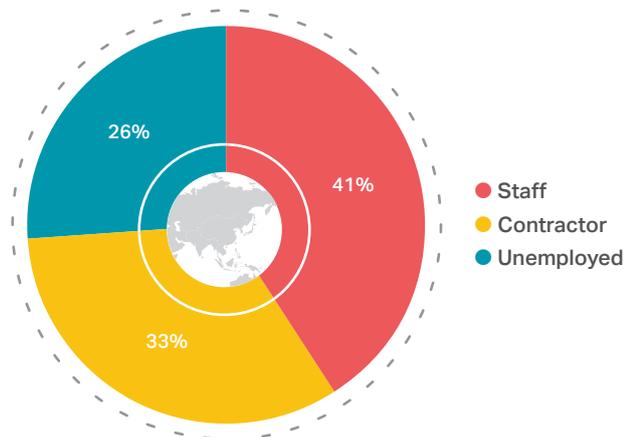
AGE



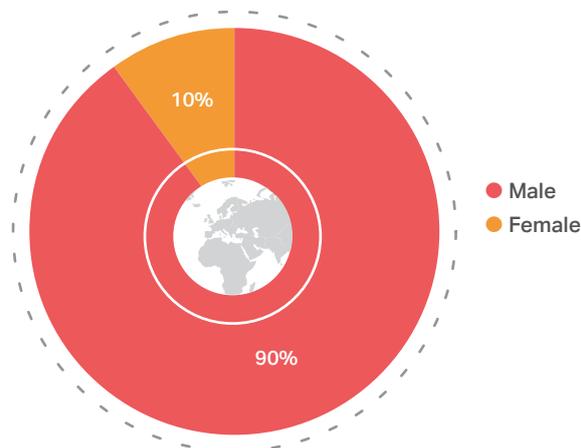
REGION



EMPLOYMENT STATUS



GENDER



2. SALARIES

Looking at salaries, one thing is immediately obvious versus last year: the oil and gas sector is back.

Thanks to the pandemic, last year saw more professionals in the oil and gas sector report a fall in pay than an increase. That was a first in GETI history and, on the evidence of this year, a blip.

PERMANENT WORKER ANNUAL SALARY, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	71,491	58,762	120,988	56,464	75,539	51,900	65,010	94,426
Accountant	42,921	35,662	84,000	34,209	50,711	30,500	40,065	56,207
Administrator	20,958	18,908	59,500	16,013	23,851	17,400	19,694	27,845
Chemical Engineer	75,810	50,696	115,500	50,718	63,504	35,100	45,484	74,416
Civil Engineer	50,776	44,482	108,500	40,385	60,660	43,200	48,587	63,985
Commissioning Engineer	82,826	69,612	112,000	66,043	90,609	25,000	75,323	102,698
Construction Engineer	74,443	62,352	112,000	79,668	69,871	46,800	59,281	102,398
Construction Manager	84,265	75,518	126,000	61,587	85,397	59,700	76,805	107,140
Contracts Manager	54,559	42,518	126,000	56,640	67,783	46,900	56,048	71,336
Drilling Engineer	74,636	68,589	175,000	61,698	84,459	70,000	83,140	107,061
Drilling Supervisor	124,927	103,897	210,000	95,342	131,899	105,800	110,562	172,344
Electrical Engineer	70,026	57,011	112,000	52,859	78,069	54,600	63,128	98,775
Finance Manager	71,678	59,250	126,000	63,530	73,936	58,100	75,015	98,604
Geophysicist	78,999	63,043	135,100	57,023	83,273	60,400	76,000	94,867
HSE Manager	71,192	60,291	131,600	56,640	80,582	45,100	61,909	92,501
Inspection Engineer	75,779	68,839	112,000	57,930	65,426	63,300	67,411	107,637
Instrumentation Engineer	80,769	53,244	112,000	71,788	85,563	58,500	69,928	111,028
Maintenance Engineer	71,537	56,753	108,500	50,953	72,889	52,000	70,933	95,524
Mechanical Engineer	63,478	49,415	112,000	49,588	70,168	52,900	60,922	87,135
Process Engineer	80,899	66,198	119,000	57,681	84,875	58,000	71,978	112,897
Production Engineer	68,703	52,498	140,000	46,462	73,439	57,700	61,967	97,531
Project Engineer	76,811	65,053	108,500	59,883	81,473	50,900	70,673	102,956
Project Manager	77,769	66,800	122,500	77,880	90,450	56,400	74,233	100,675
QA/QC Inspector	63,652	56,282	112,000	43,898	63,106	46,759	49,997	88,349
Reservoir Engineer	88,075	81,663	140,000	68,414	86,197	62,800	102,435	115,337
Welding Engineer	61,786	40,477	105,000	34,769	70,297	39,650	33,744	71,404

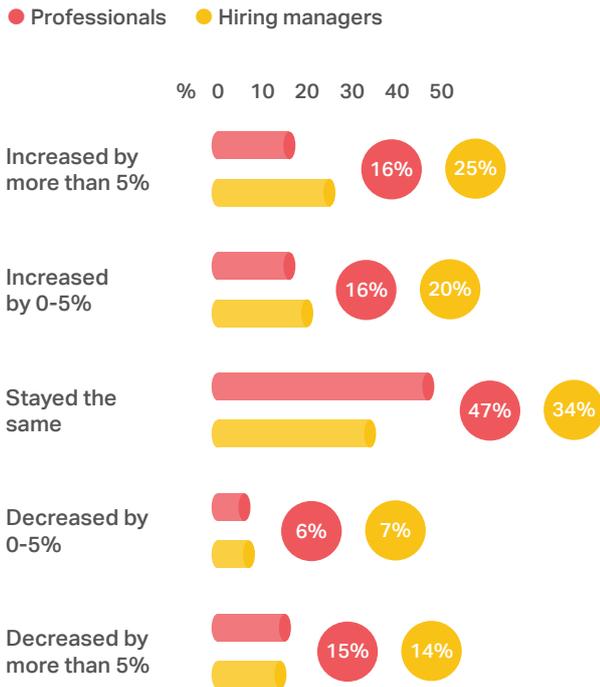


CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	721	452	691	292	831	369	487	696
Accountant	392	291	391	166	567	206	299	426
Administrator	140	131	298	60	246	131	116	208
Chemical Engineer	554	387	604	214	717	256	412	650
Civil Engineer	511	336	533	204	677	256	371	491
Commissioning Engineer	770	511	568	288	934	345	517	706
Construction Engineer	715	471	568	279	775	327	464	755
Construction Manager	899	583	781	389	934	414	618	776
Contracts Manager	700	384	781	350	771	377	484	539
Drilling Engineer	880	616	994	449	944	510	587	785
Drilling Supervisor	1,232	886	1,207	698	1,382	842	773	1,228
Electrical Engineer	714	476	568	250	853	385	460	750
Finance Manager	680	455	781	422	823	437	531	726
Geophysicist	1,088	488	923	335	941	425	618	698
HSE Manager	690	504	852	363	892	343	469	670
Inspection Engineer	687	490	568	200	730	389	465	745
Instrumentation Engineer	756	403	568	304	934	403	499	810
Maintenance Engineer	729	415	533	256	770	297	490	683
Mechanical Engineer	634	371	568	212	779	372	454	636
Process Engineer	816	482	639	211	913	378	515	798
Production Engineer	623	386	1,030	232	793	432	451	710
Project Engineer	721	482	533	297	891	334	517	746
Project Manager	817	497	710	412	983	381	618	728
QA/QC INSPECTOR	647	428	568	121	695	292	382	654
Reservoir Engineer	817	544	1,030	438	942	438	752	839
Welding Engineer	816	279	670	160	884	261	323	650

Nearly a third of professionals (31 per cent) report an increase versus a fifth (21 per cent) reporting a decrease. Hiring managers are even sunnier, with 45 per cent reporting increased rewards.

PAY CHANGES IN THE LAST 12 MONTHS



And that sunny disposition extends to the future too: 53 per cent of professionals and 61 per cent of hiring managers expect pay to rise in the 12 months. A third (33 per cent) of professionals expect that rise to be more than five per cent – indicating greater ability for companies to award above cost-of-living increases.

33%

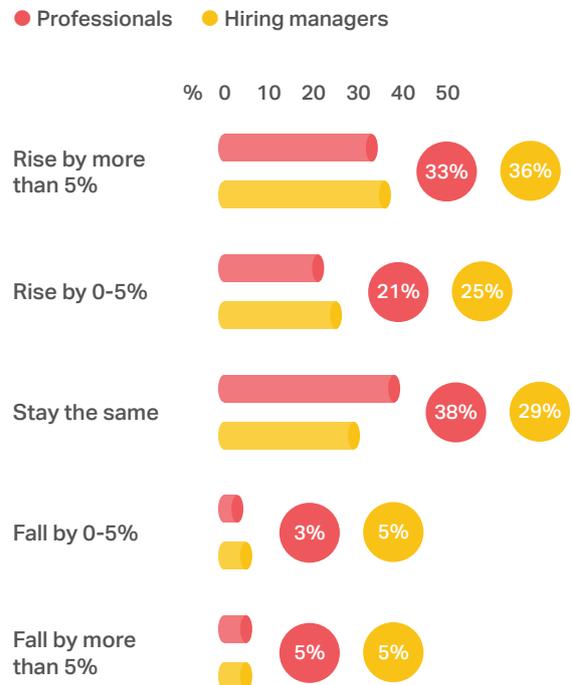
of professionals expect to receive raises of more than five per cent this year.

However, it is important to view this optimism in its proper context. Janette Marx, CEO of Airswift, explains: “Yes, we should celebrate the return of optimism to the sector. However, confidence on pay hasn’t quite rebounded to pre-pandemic levels yet. In GETI 2019, 65 per cent of professionals expected an increase. So, we’re on the right track, but the job isn’t done yet in terms of rebuilding that faith in the sector’s ability to reward its professionals.”

“We should celebrate the return of optimism to the sector. However, confidence on pay hasn’t quite rebounded to pre-pandemic levels yet.”

– Janette Marx

PAY EXPECTATIONS FOR THE NEXT 12 MONTHS

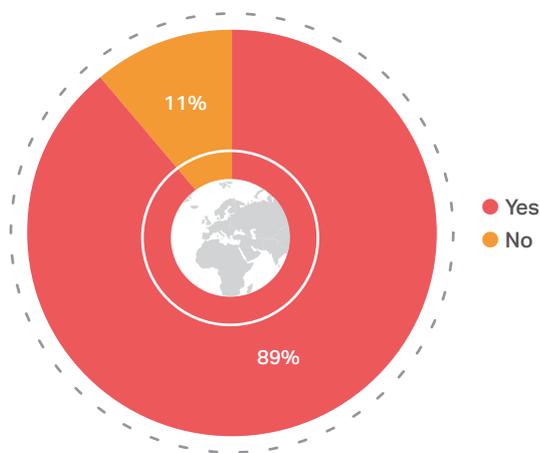




3. GLOBAL MOBILITY

A famously globetrotting industry, it is perhaps unsurprising that oil and gas remains a highly mobile sector. Once again, nearly nine-in-ten oil and gas respondents would consider relocating to another region.

WOULD YOU CONSIDER RELOCATING TO ANOTHER REGION FOR YOUR JOB?



Also unchanged is respondents' wish-list of preferred destinations. Europe retains the top spot, followed by the Middle East and Asia, selected by 25 per cent, 21 per cent and 14 per cent respectively.

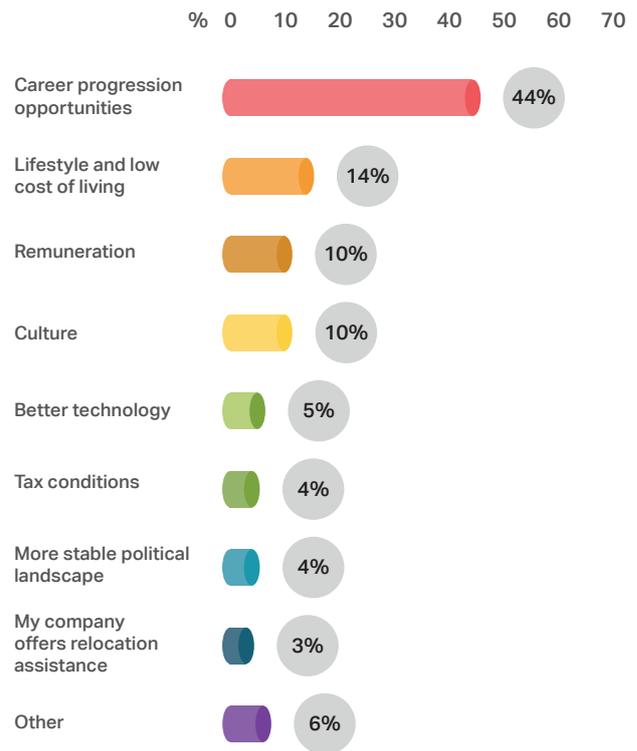
There is, however, minor movement in reasons given for being open to a move to another region. While career progression is still the leader, followed by lifestyle and low cost of living (14 per cent), remuneration has this year caught up with culture (both on 10 per cent).

Josh Young, Director of Energy Jobline, cautions against reading too much into the difference this year: "The overall pattern is the same: people are really placing greater value on the 'soft' factors like lifestyle and culture, valuing these on a par with the traditional, more hard-edged concern of pounds and dollars. Maybe the slight uptick in those valuing remuneration reflects the fact that some have had a hard, uncertain year, but professionals' values remain unshaken – and hiring managers should note that well."

"The overall pattern is the same: people are really placing greater value on the 'soft' factors like lifestyle and culture, valuing these on a par with the traditional, more hard-edged concern of pounds and dollars."

– Josh Young

WHAT IS YOUR MAIN REASON FOR BEING ATTRACTED TO THIS LOCATION?



44%

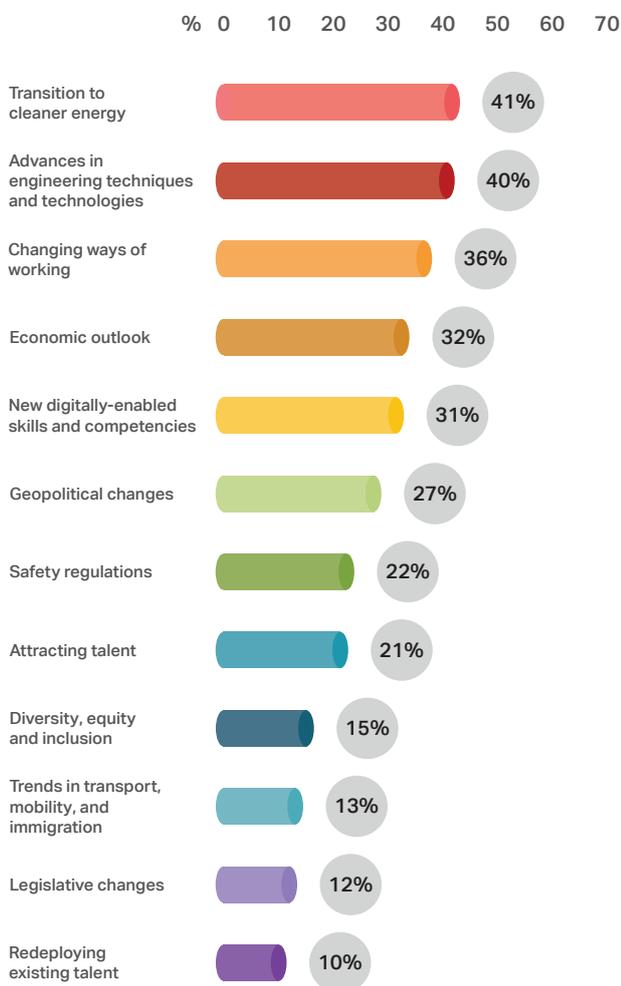
of respondents cite career progression as a major motivator when considering a move to another region.



4. CHALLENGES AND OPPORTUNITIES

COVID-19 continues to cast its long shadow over the minds of respondents and is cited by 65 per cent as a major challenge for the oil and gas sector over the next three years. The next most common causes for concern are the transition to clean energy (40 per cent), economic outlook (30 per cent) and geopolitical factors (29 per cent).

MOST IMPORTANT OPPORTUNITIES OVER THE NEXT THREE YEARS



“Aren’t all challenges opportunities with the right mindset? Oil and gas pros have a chance to show that they’re vital to making this transition while keeping the lights on.”

– Fiona MacAuley

Fiona MacAuley, Chair of IOG Plc and Non-Executive Director of EPI Group Ltd, is unsurprised: “Whether the pandemic remains a top challenge for three full years remains to be seen, but it’s easy to understand why it preys so much on the mind of professionals in the oil and gas sector in particular. Ours is a sector built on a globally mobile workforce, and that workforce has spent months tied up at borders and quarantined in hotels. The impact on projects is obvious, but there’s also the impact on people – professionals have also missed time with their families. If you work four-and-two or three-and-three offshore, then losing a week to self-isolate really hits hard.”

Putting the pandemic aside, the top opportunity cited by respondents mirrors the top risk: the clean energy transition. Selected by 42 per cent, this is followed by advances in engineering techniques and technologies (40 per cent) and changing ways of working (36 per cent). Economic outlook (32 per cent) and digitally enabled skills and competencies (31 per cent) also surmount the 30 per cent threshold.

40%

of respondents rank the transition to clean energy as a major challenge for the sector - but 41 per cent see it as a huge opportunity.

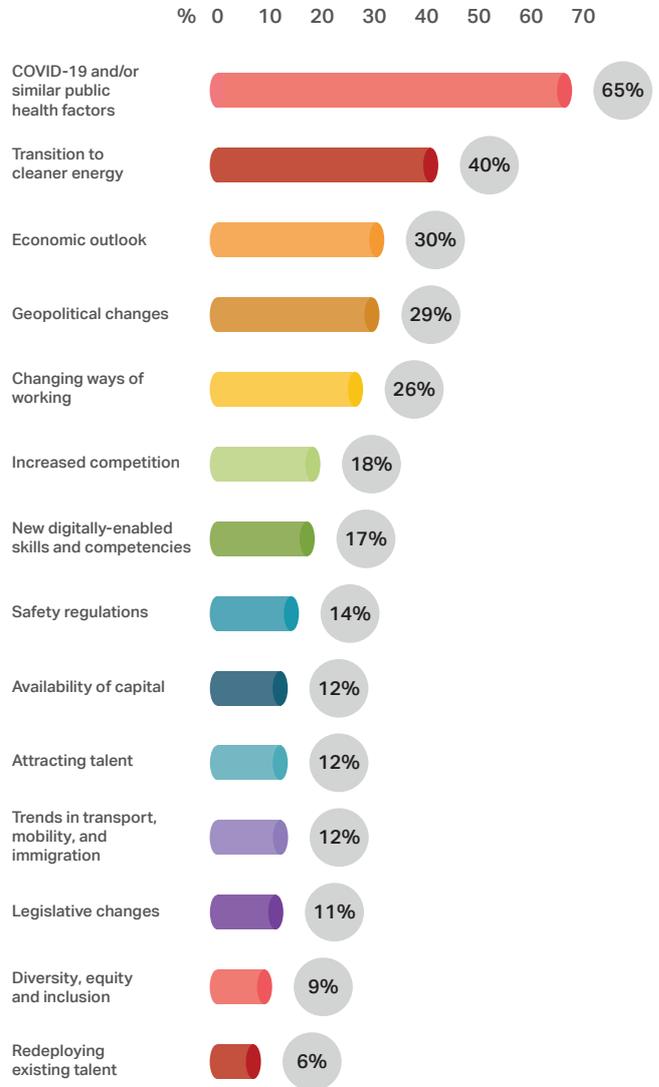


“The prevalence of changing ways of working and digital skills also echo what we hear from candidates in the market. These trends will only accelerate, and professionals recognise the opportunity in that.”

– Janette Marx



MOST IMPORTANT CHALLENGES OVER THE NEXT THREE YEARS



“The energy transition is make or break, depending on who you ask,” continues MacAulay. “Of course, the transition is a threat to those that fear being left behind – there’s a challenge to keep the pace. But really, aren’t all challenges opportunities with the right mindset? Oil and gas pros have a chance to show that they’re vital to making this transition while keeping the lights on, and leaders will seize it with both hands.

Marx adds that: “The prevalence of changing ways of working and digital skills also echo what we hear from candidates in the market. These trends will only accelerate, and professionals recognise the opportunity in that.”



5. SKILLS

Does the oil and gas sector have the right skills to take its abundant opportunities? The consensus seems to be that it does, but not in sufficient depth as yet.

When asked what category of skills are most important for future-proofing the sector, respondents are mainly concerned with technical skills (37 per cent), followed by behavioural skills (23 per cent) and operational skills (17 per cent), with digital, safety and commercial awareness skills bringing up the rear (nine, eight and five per cent respectively).

“It’s not surprising to see technical skills taking the top spot... With all the major projects in the sector, these skills are critical.”

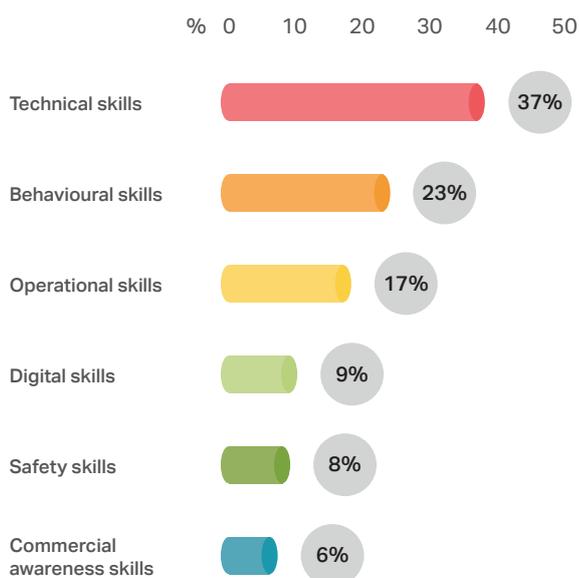
– *Fiona MacAuley*

MacAuley comments: “It’s not surprising to see technical skills taking the top spot with engineering, planning, organising, scheduling, and project management being key skills to get into and stay in oil and gas. With all the major projects in the sector, these skills are critical and shared amongst hiring managers and professionals alike.”

37%

of respondents believe technical skills are the most important for a future-proof energy workforce.

MOST IMPORTANT SKILLS FOR A FUTURE-PROOF ENERGY WORKFORCE



Young adds: “Given how much we hear about the sector’s digital transformation, it’s surprising at first glance to see digital skills rank so low. It makes more sense, though, once you dig into the specific digital skills people value. Professionals and hiring managers both pointed to data analytics, cloud technology, and system implementation and integration as the most important digital skills that they either possess or look to hire-in. That reflects where we are, with the industry looking to get systems in place to gather and interpret big data – we may well see the more future-facing skills like analytics and AI rise in prominence in the next few years.”

In terms of the technical skills professionals rank highly in themselves and hiring managers ranked highly when recruiting into the sector, both groups cite engineering and planning/organising/scheduling. Hiring managers were next most interested in project management skills, while professionals preferred the ability to work with tools and technology.



TECHNICAL SKILLS DESIRED BY HIRING MANAGERS VS. POSSESSED BY PROFESSIONALS





For operational skills, all respondents emphasise the importance of people management first and foremost, with learning and development, knowledge of manufacturing production and processes, and customer relationship management all featuring highly. As for behavioural skills, both professionals and hiring managers pointed to leadership and managing others, adaptability, and teamwork skills as most important.

58%

of hiring managers see engineering skills as among the most important technical skills when sourcing talent from outside the sector.

For Marx: “This is another demonstration of the current status of the sector and the energy transition. Respondents recognise this great state of flux, and therefore emphasise the skills which make an individual or team resilient and flexible in the face of that change.”

“Organisations are doing everything they can to get the skills they need, but realise that the need is so great that they will also need to invest in ways that reduce the burden on human workloads.”

– Josh Young

The question is then: how do companies go about ensuring they have these skills they value so highly? For behavioural, commercial, safety and digital skills, the preferred option is to upskill and reskill existing employees. For operational and technical skills by contrast, the most popular option is to hire from within the oil and gas sector.

This chimes with answers given by professionals when asked how to ensure the organisation has the skills required to handle the challenges posed by the rapidly changing global energy landscape. The top three answers are improved learning and development programs (selected by 67 per cent), retraining existing employees (49 per cent) and mentorship (39 per cent). Interestingly, hiring managers report that their organisations are indeed investing in learning and development programs (57 per cent) and retraining existing employees (50 per cent), but are more likely to report investment in technologies such as AI and automation (45 per cent) to meet skills demand than mentorship (40 per cent).

55%

of professionals rank engineering skills as among the most valuable transferrable technical skills that they personally possess.

Young concludes: “The fact that hiring managers rank tech investment so highly confirms what many of us share as an intuition: that organisations are doing everything they can to get the skills they need, but realise that the need is so great that they will also need to invest in ways that reduce the burden on human workloads.”



6. ESG

Satisfaction with ESG performance in the oil and gas sector is reassuringly high. Half of respondents felt their organisation’s ESG plan was sufficiently ambitious and robust, rating performance 3.55 out of 5 averaged across the three factors.

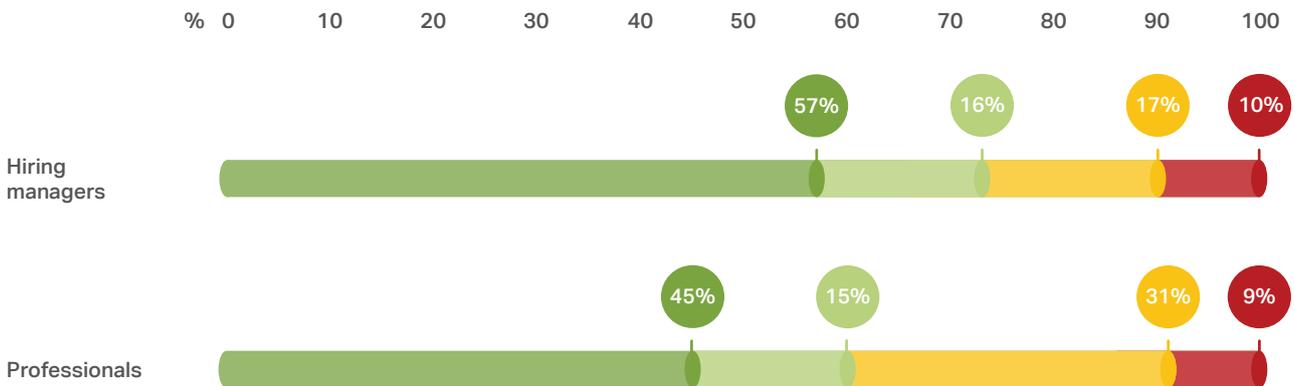
This is encouraging, as 85 per cent of professionals cite ESG as a factor in joining or remaining with a business – 57 per cent saying it is a major factor. Today’s oil and gas sector professionals clearly value ESG highly, reinforced by the fact that renewables remains the most popular destination for those who would consider leaving oil and gas for another energy sector (selected by 54 per cent).

57%

of hiring managers and 45 per cent of professionals believe their company’s ESG plan is sufficiently robust.

IS YOUR COMPANY’S ESG PLAN SUFFICIENTLY AMBITIOUS AND ROBUST?

● Yes ● No ● I don’t know ● My company doesn’t have an ESG plan



“Professionals want to feel they’re in the right place to make a difference and it seems like now many do.”

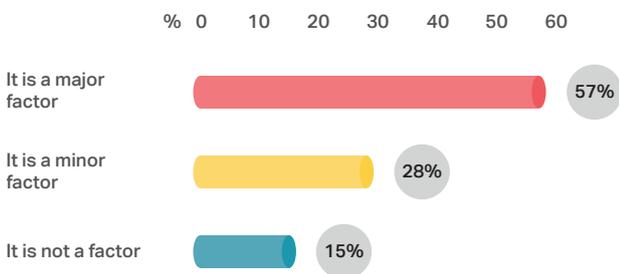
– Janette Marx

What’s more, 42 per cent say their organisation has changed direction to adapt to the energy transition, of which 82 per cent feel positive about the change.

According to Marx, this is a sign of the industry beginning to give a better account of itself: “The oil and gas sector has all the ingredients to be part of the solution to the energy transition: the people, skills, equipment, capital and so on. We’ve encouraged firms to highlight their contribution to the transition and they have. Now they reap the rewards: professionals want to feel they’re in the right place to make a difference and it seems like now many do.”



DOES ESG ACTIVITY INFLUENCE YOUR LIKELIHOOD OF JOINING OR REMAINING WITH A BUSINESS?



MacAulay warns that: “We shouldn’t focus too narrowly on the ‘E’ in ESG, however. On governance, oil and gas has always been tightly regulated and generally well-run. The ‘S’ – ‘social’ – that deserves some attention though. Is the industry doing everything it can from a diversity and inclusion perspective, for example?”

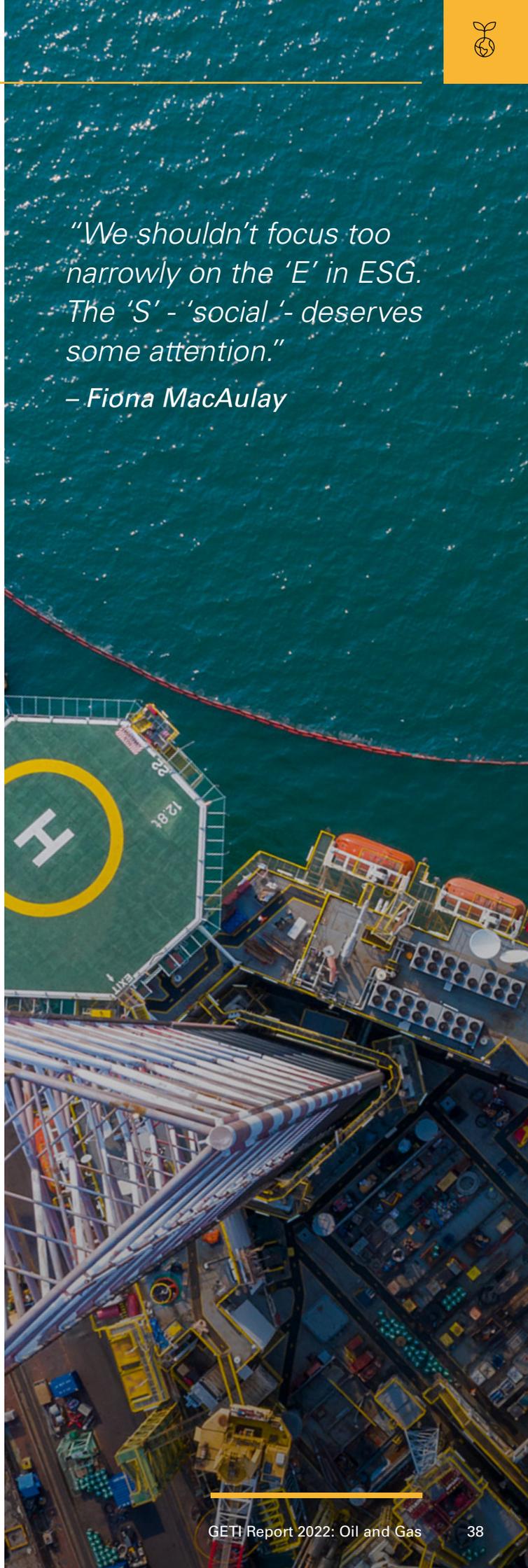
Indeed, 15 per cent of respondents thought that diversity, equity and inclusion is an important opportunity for the sector – a number that according to MacAulay, “seems low, but is actually fairly positive considering women only account for 10 per cent of respondents.”

Demonstrating how family-friendly workforce policies could boost diversity, proximity to family emerges as the primary barrier to relocating for employees, especially women, who are more likely than men (56 per cent to 42 per cent) to cite proximity to family as a barrier to relocation when asked about global mobility. Similarly, women are slightly more likely to see children’s education as a barrier to relocation (16 per cent to 14 per cent).

Marx adds: “Oil and gas has traditionally been seen as a man’s game, with frequent movement and remote deployment not conducive to family caregiving, which still falls disproportionately to women. However, there are signs of improvement, and we can hope that the digital transformation creates more fully remote roles that lessen some of those barriers.”

“We shouldn’t focus too narrowly on the ‘E’ in ESG. The ‘S’ – ‘social’ – deserves some attention.”

– Fiona MacAulay





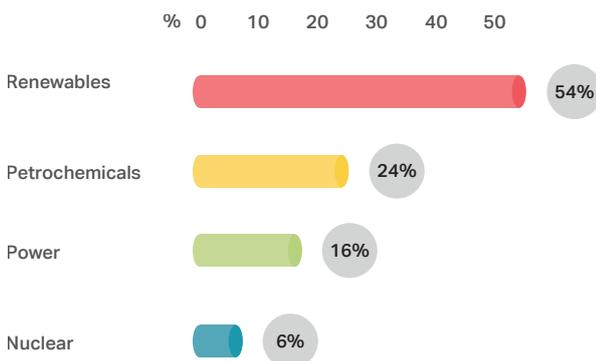
7. ATTRACTING AND RETAINING TALENT

Demonstrating its dual status as opportunity and challenge for the sector, the energy transition means that 82 per cent of respondents would consider switching to another energy sector in the next three years. This figure has crept upwards from 79 per cent last year, and 73 per cent the year before.

ESG is the second most popular motivator of a sector switch, reflecting the oil and gas sector's improving but still imperfect ESG reputation.

As a destination, renewables is the most popular, selected by more than half of potential leavers (54 per cent). Nearly a quarter (24 per cent) would move to petrochemicals and 16 per cent to power, but only 6 per cent to nuclear, possibly due to the lack of transferable skills.

WHICH ENERGY SECTOR WOULD YOU BE MOST INTERESTED IN SWITCHING TO?



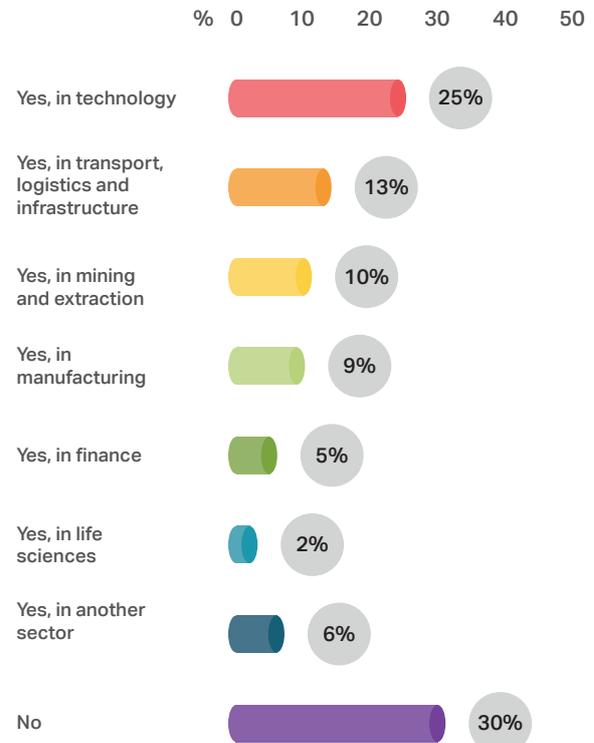
Career progression is once again the primary motivation for doing so, chosen by 32 per cent. ESG is second on 17 per cent, reflecting the oil and gas sector's improving but still imperfect ESG reputation, and reflecting renewables' status as the most popular destination.

More surprisingly, 70 per cent would consider moving out of the energy sector altogether, with their eyes on technology and transport, logistics and infrastructure.

70%

of respondents would consider leaving the energy industry altogether.

WOULD YOU CONSIDER MOVING TO A ROLE IN A NON-ENERGY SECTOR IN THE NEXT THREE YEARS?



Young has witnessed this first-hand: “As oil and gas’s digital transformation progresses, we will have more professionals with transferable digital skills, and therefore with the ability to move more fluidly both between energy sectors and into new areas entirely. Tech is a fashionable choice and one of the few sectors to match oil and gas for remuneration, so it’s no surprise to see it here. As for transport and infrastructure, it’s a very neat overlap in terms of skillsets.”

“Individuals are ready and willing to move, whether it’s to a direct competitor, another part of the energy mix or elsewhere entirely – that means some companies will need to step up their efforts on the retention front.”

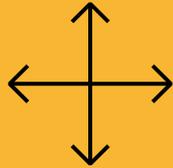
– Janette Marx

Furthermore, 89 per cent would also consider a switch within the oil and gas sector in the same timeframe, motivated by career progression (37 per cent) and remuneration and benefits (14 per cent).

Marx puts the pieces together: “It’s wonderful to see respondents overwhelmingly happy with the oil and gas space, and to see increasingly fluid movement between parts of the energy sector. However, this should sound a warning for companies. Individuals are ready and willing to move, whether it’s to a direct competitor, another part of the energy mix or elsewhere entirely – that means some companies will need to step up their efforts on the retention front.”

54%

of those looking to switch to another energy sector favour a move into renewables.



Summary Oil and Gas

Though the pandemic hasn't yet faded into memory, the oil and gas sector has come roaring back to strength and resumed the trajectories it enjoyed before. Digital transformation continues apace, with shifting skill profiles to match.

The energy transition marches on and the oil and gas sector evolves to meet its challenges – with a fair degree of success, judging by the sentiments expressed by those that know best: the sector's invaluable professionals. The biggest challenge may well be on how to keep the best people where they are while supporting them with the skills for the new world.







GETI
Global Energy Talent Index

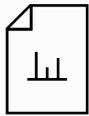


energyjobline

Petrochemicals



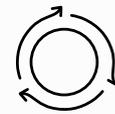
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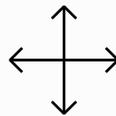
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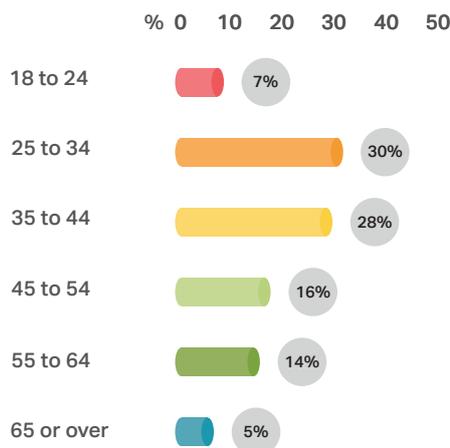


Petrochemicals

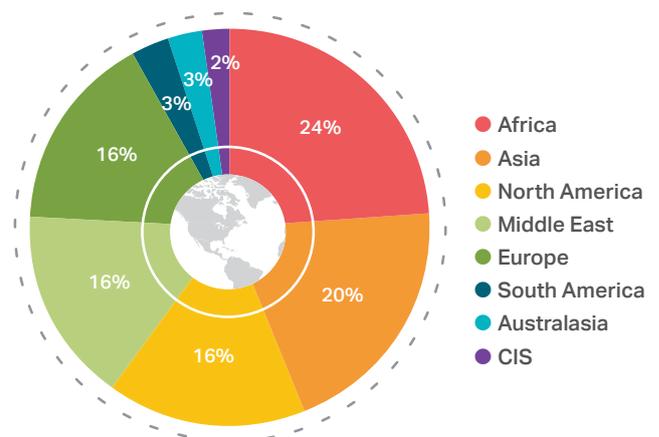
The pandemic has revolutionised ways of working, accelerated technological transformation and spurred demand for consumer packaging, helping drive a recovery reflected in rising wages. The bounce-back and technological transformation have also driven a technical skills shortage. With ESG concerns increasingly prominent in professionals' career decisions, employers must focus on the energy transition, flexible working, and family-friendly policies to compete in the new talent market.

1. DEMOGRAPHICS

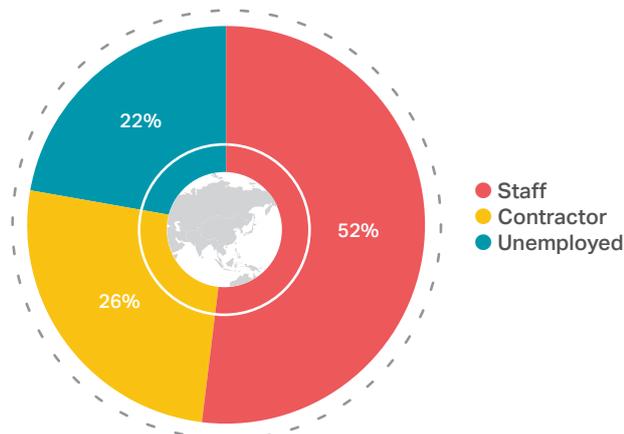
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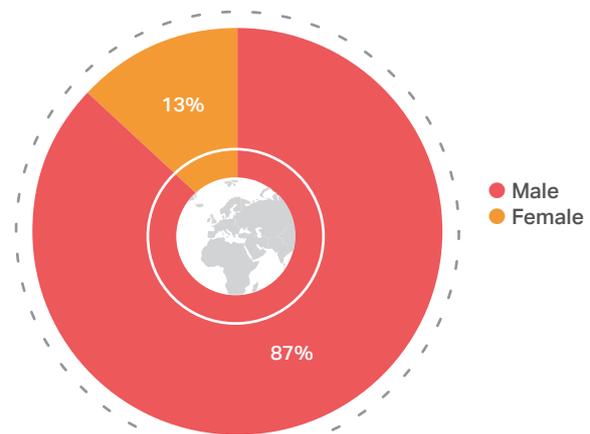
REGION



EMPLOYMENT STATUS



GENDER



2. SALARIES

Salaries are steadily rising following a pandemic-induced dip but have yet to reach pre-pandemic heights. Thirty-nine per cent report a pay rise, slightly more than last year's 37 per cent but significantly below the 55 per cent recorded in GETI 2020. The 18 per cent reporting a salary increase of more than five per cent holds steady with last year, but falls significantly below the 25 per cent of two years ago.

PERMANENT WORKER ANNUAL SALARY, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	55,576	48,908	67,835	47,666	58,580	40,480	51,859	75,366
Administrator	20,290	18,198	24,424	15,464	23,677	17,900	18,645	26,989
Chemical Engineer	63,241	47,009	62,422	43,759	61,378	34,300	46,934	69,037
Chemist	52,385	49,697	64,929	33,861	56,482	39,000	54,290	72,482
Construction Manager	77,787	67,270	93,377	56,681	79,426	53,900	71,177	100,046
Electrical Engineer	65,638	54,615	79,941	48,984	72,453	49,300	59,285	91,981
Environmental Manager	62,690	52,585	74,929	46,589	59,610	46,600	57,462	84,331
Finance Manager	66,204	55,843	79,070	70,589	69,516	49,200	65,629	91,338
Health and Safety Manager	46,045	42,655	58,661	56,471	52,680	33,400	44,960	64,439
HR Manager	43,130	36,213	49,077	50,824	47,286	37,600	46,339	58,524
Lab Manager	32,216	33,770	42,724	50,824	40,178	29,400	32,946	43,477
Maintenance Technician	36,682	45,006	52,639	29,507	39,935	28,000	33,624	49,717
Mechanical Engineer	61,654	48,819	78,383	48,188	67,684	47,200	58,551	85,329
Office Manager	36,177	30,903	41,936	35,814	38,352	29,100	32,984	50,102
Planner/Scheduler	58,278	47,976	69,252	45,849	50,138	41,000	53,408	76,789
Process Engineer	76,496	61,898	97,689	60,939	80,557	53,600	70,221	107,336
Process Operations Production Manager	49,060	47,162	67,287	70,589	54,736	39,800	52,144	75,932
Project Coordinator	65,187	52,547	73,485	43,565	57,963	42,000	51,866	86,278
Purchasing Manager	55,895	60,465	72,558	42,353	68,913	31,300	56,684	81,258
QA/QC Manager	72,243	65,460	86,521	53,976	75,256	63,000	63,869	96,346
Technical Engineer	70,228	60,078	87,386	48,493	75,376	44,000	66,166	95,580



CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	564	356	474	259	568	277	379	556
Administrator	122	123	155	42	252	126	112	202
Chemical Engineer	544	353	455	268	602	235	412	547
Chemist	427	359	435	212	543	248	383	507
Construction Manager	952	468	649	286	766	345	512	716
Electrical Engineer	680	386	555	308	694	319	427	700
Environmental Manager	884	368	514	203	544	271	403	700
Finance Manager	607	413	552	295	677	335	475	667
Health and Safety Manager	884	317	431	236	537	230	386	479
HR Manager	403	378	339	212	481	250	340	428
Lab Manager	408	259	320	212	418	231	260	336
Maintenance Technician	333	297	352	203	413	175	245	358
Mechanical Engineer	570	356	563	316	649	320	427	631
Office Manager	316	240	312	230	371	229	245	387
Planner/Scheduler	454	340	489	271	472	234	387	548
Process Engineer	544	429	694	347	777	363	491	779
Process Operations Production Manager	816	351	488	295	539	277	390	575
Project Coordinator	564	375	509	294	552	261	349	591
Purchasing Manager	502	430	511	209	654	279	408	566
QA/QC Manager	645	481	592	386	722	462	449	750
Technical Engineer	632	391	574	346	702	356	478	660

39%

of professionals report a pay rise this year - slightly up on last year's 37%.

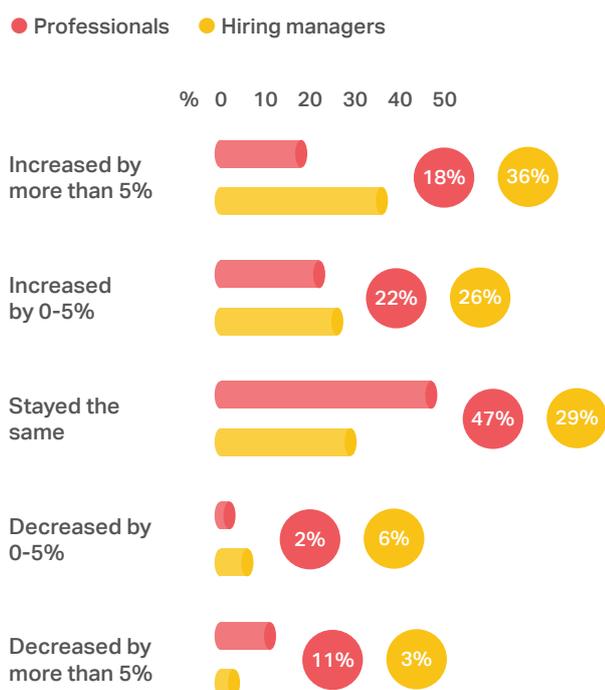
62%

of hiring managers report an increase in pay over the past year.

The proportion reporting a pay cut has fallen to 13 per cent from 24 per cent last year, yet remains slightly above the 10 per cent reporting a reduction pre-pandemic. This closely mirrors the fluctuating fortunes of the sector overall as the pandemic-driven oil price drop hit revenues before they rebounded in the latter half of 2020.

Josh Young, Director of Energy Jobline, says: “This mixed picture reflects the fact the survey covers half a pandemic year and half a post-pandemic year. We expect the sector’s pay prospects to continue on an upward trajectory as the sector continues to bounce back.”

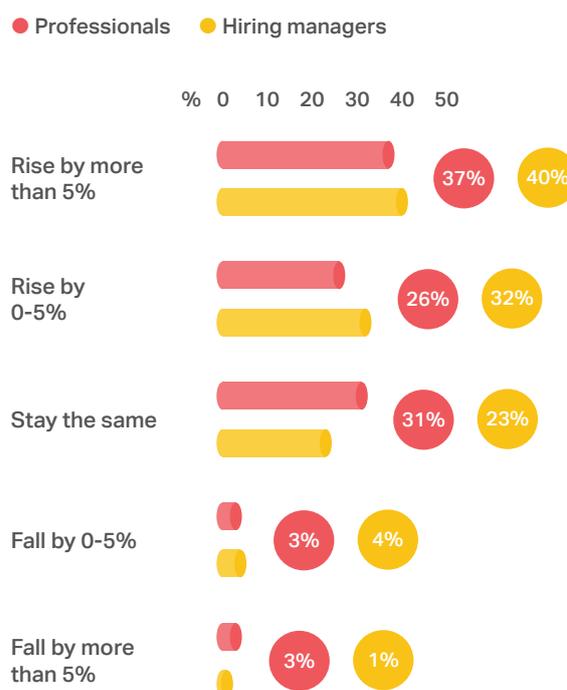
PAY CHANGES IN THE LAST 12 MONTHS



This is reflected in growing salary optimism among respondents, as the sector’s recovery is buoyed by strong demand for consumer-packaged goods and plastic resins for high-end materials. The proportion of professionals expecting a pay rise in the next 12 months has increased to 63 per cent from 56 per cent last year, while the proportion projecting a pay cut plummeted from 15 per cent to 5 per cent this year. 37 per cent expect a pay rise above 5 per cent.

Hiring managers paint an even more positive picture all around with 62 per cent reporting an increase in pay over the past year and a whopping 72 per cent anticipating further rises in the year to come.

PAY EXPECTATIONS FOR THE NEXT 12 MONTHS



“We saw companies reduce hours and pay earlier in the pandemic, but this trend is reversing as the sector bounces back.”

– Janette Marx

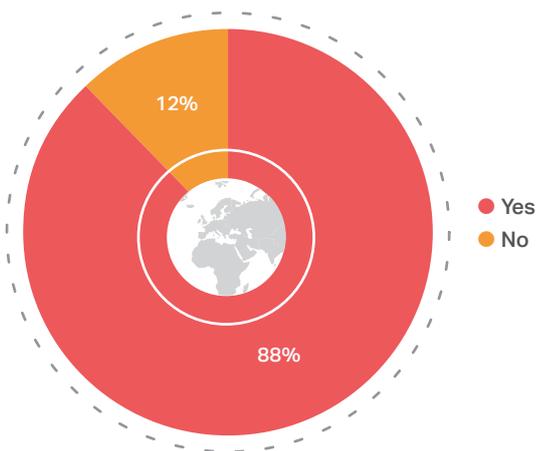
Janette Marx, CEO of Airswift, says, “We saw companies reduce hours and pay earlier in the pandemic, but this trend is reversing as the sector bounces back. Ironically, although the pandemic precipitated a petrochemicals downturn, it subsequently aided its recovery by driving demand for e-commerce related consumer packaging, PPE, and personal hygiene products.”



3. GLOBAL MOBILITY

Holding steady year-on-year, 88 per cent of the workforce would consider relocating to another region for work in the next three years, but almost half (48 per cent) say their employer does not provide such opportunities. One third of the current workforce is composed of expats, exemplifying the globalisation of the current energy workforce. However, the continued mismatch between the international mobility of the current workforce and the restrictive relocation policies of many employers could pose a talent retention challenge.

WOULD YOU CONSIDER RELOCATING TO ANOTHER REGION FOR YOUR JOB?

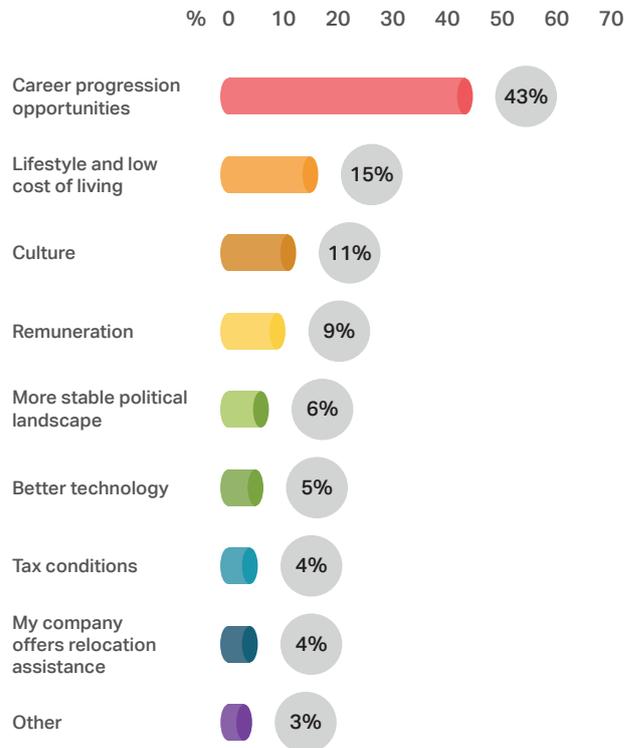


43%

of those considering moving to another region cite career progression as their primary motivation.

For the second year running, Europe has edged out North America as the top destination for relocation, as the US travel bans took its toll. Twenty-four per cent of would-be movers would choose Europe, followed by 17 per cent for the Middle East, and 16 per cent preferring North America.

WHAT IS YOUR MAIN REASON FOR BEING ATTRACTED TO THIS LOCATION?



As with the previous year, career progression is the prime driver for a change in region at 43 per cent, followed by lifestyle and low cost of living, and cultural factors. Among the minority not wanting to move, 53 per cent cite proximity to family and 19 per cent put it down to their children's education. This is higher than the 48 per cent citing family in 2019 and could reflect how the extra time spent at home during lockdown has led workers to re-evaluate their work/life balance.

Marx says: "Lifestyle, living costs and family are rising in importance as factors affecting whether petrochemicals pros remain or relocate. This reinforces evidence that a side-effect of stay-at-home policies was an improved work/life balance, and many professionals wish to preserve this as the pandemic recedes."

4. CHALLENGES AND OPPORTUNITIES

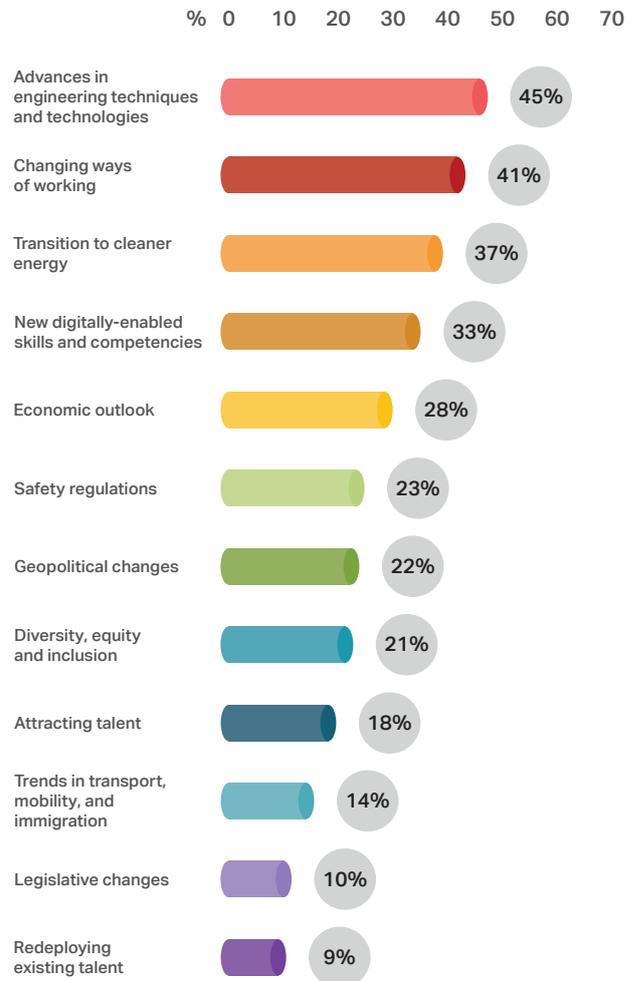
COVID-19 is unsurprisingly cited as the biggest challenge facing the sector. Perhaps relatedly, changing ways of working and economic outlook rank as the joint third biggest, as the sector slowly adjusts to the social and economic changes wrought by the pandemic.

Yet the pandemic has also precipitated some of the changes recognised as opportunities for the sector. Advances in engineering techniques and technologies (cited by 45 per cent of respondents) and changing ways of working (41 per cent) are seen as the most important opportunities facing petrochemicals over the next three years, as remote working spurs sector-wide digital transformation.

The energy transition is perceived as a double-edged sword. Respondents are split with 35 per cent citing it as a challenge and 37 per cent as an opportunity.

Respondents are therefore somewhat divided over whether changing ways of working reflect a challenge or an opportunity, and Leon de Bruyn, CEO at Lummus Technologies, says this may not be a contradiction: "Pandemic era work-from-home policies have accelerated digital transformation, from remote plant operation to virtual collaboration. This is a challenge for a conservative industry where previously engineers would use paper-based drawings, and suddenly they must learn to do it with software. But it is also an opportunity to improve productivity and democratise skills. Previously only the most senior engineers could visit sites but now that plants can be commissioned remotely through VR, younger engineers are actually more clued-up on this kind of tech and are better able to navigate the sites."

MOST IMPORTANT OPPORTUNITIES OVER THE NEXT THREE YEARS



Respondents are somewhat divided over whether changing ways of working reflect a challenge or an opportunity.



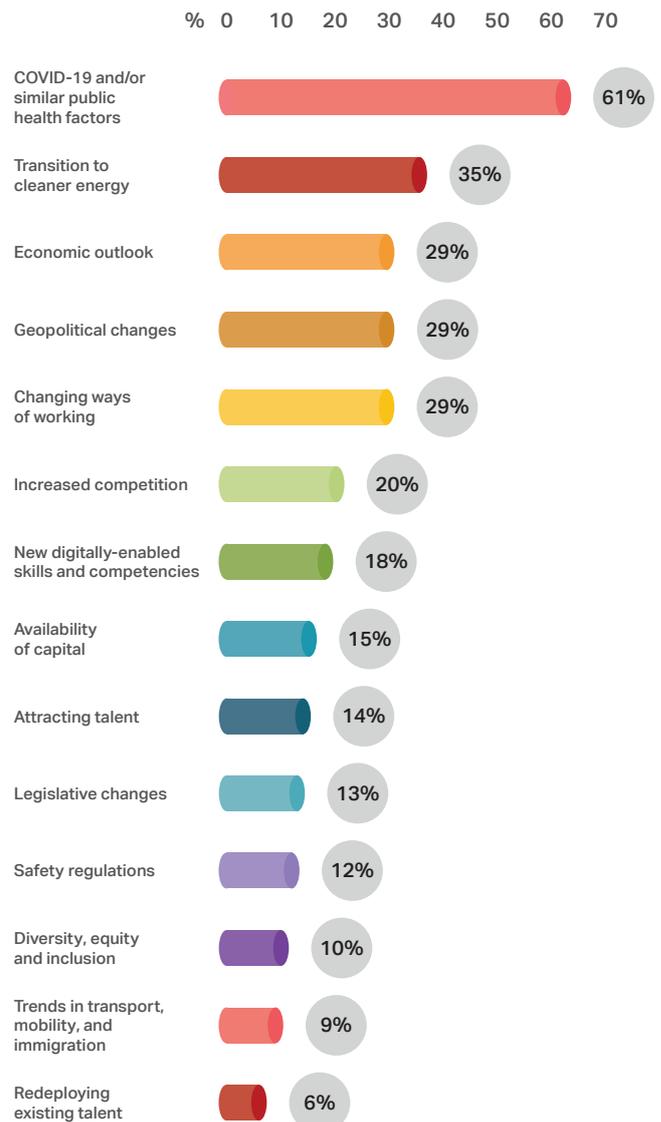
“Any change brings challenges, and a period of turbulence. The companies that succeed will be those that can seamlessly merge traditional fossil fuel-based operations with renewables.”

– Leon De Bruyn

The energy transition is similarly perceived as a double-edged sword. Respondents are evenly split with 35 per cent citing it as a challenge and 37 per cent as an opportunity.

De Bruyn notes: “Any change brings challenges, and a period of turbulence. Yet there are great opportunities in converting biomatter to petrochemical products and supporting the energy transition in other sectors by creating a circular economy of carbon wherein CO₂ is converted to petrochemicals. The companies that succeed will be those that can seamlessly merge traditional fossil fuel-based operations with renewables.”

MOST IMPORTANT CHALLENGES OVER THE NEXT THREE YEARS





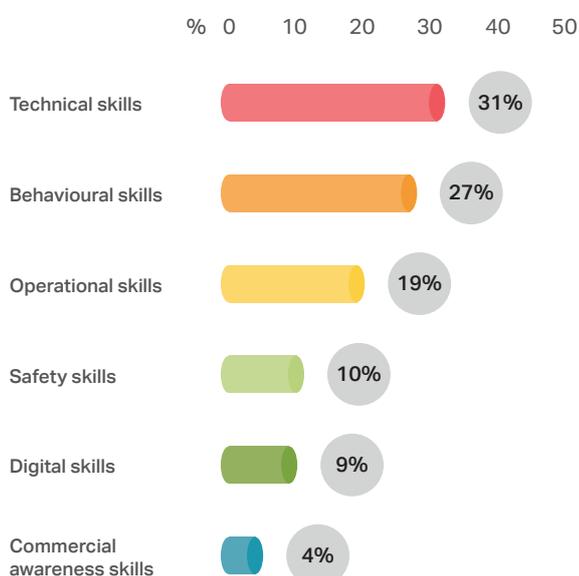
5. SKILLS

With the pandemic accelerating technological transformation, 31 per cent identify technical skills as the most important for creating a flexible, future-proof workforce. When it comes to getting these skills into the business, 18 per cent of hiring managers look to the wider energy industry – more than for any other skillset, although still less than the 35 per cent who seek to hire from within petrochemicals and 34 per cent who believe in upskilling and retraining existing employees.

“It’s no surprise that engineering is the prime skill employers seek when looking for new talent. Industry-wide demand means these skills are also the most transferrable to other sectors, posing a talent retention as well as recruitment challenge.”

– Janette Marx

MOST IMPORTANT SKILLS FOR A FUTURE-PROOF ENERGY WORKFORCE



Engineering emerges as the most in-demand technical skill when hiring managers seek talent from outside of petrochemicals. This is matched by the 57 per cent of professionals who identify engineering as among the most important transferrable skills they hold, indicating that many companies could tap in-house talent to adapt to technological transformation and plug technical skills shortages.

Marx says: “A combination of remote working, the energy transition and the need for efficiencies in an uncertain economy has driven technological innovation and demand for tech skills. It’s no surprise that engineering is the prime skill employers seek when looking for new talent. Industry-wide demand means these skills are also the most transferrable to other sectors, posing a talent retention as well as recruitment challenge.”

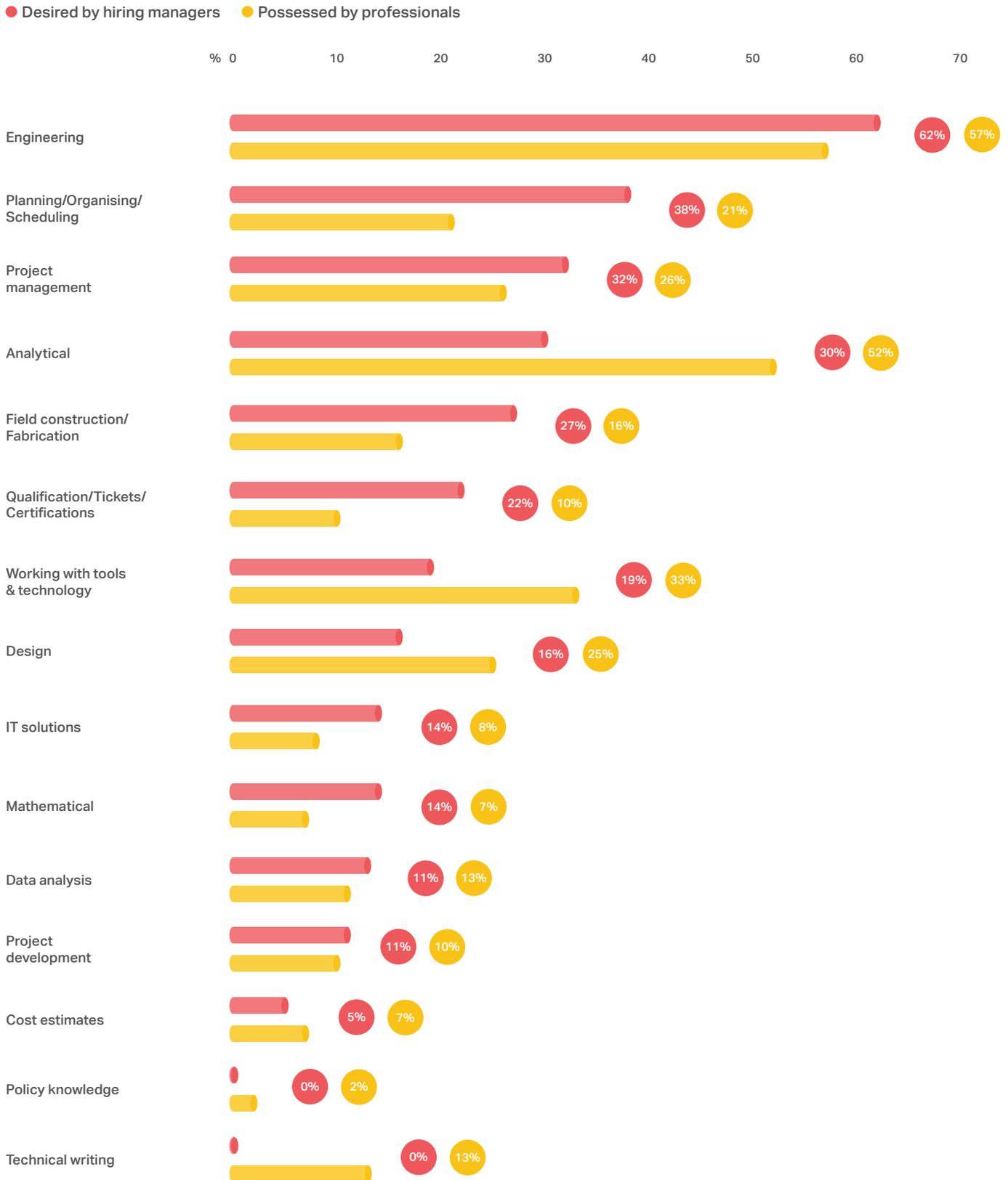
New types of technical skills are also in demand. With pandemic-driven digital transformation also increasing cyber security threats, 45 per cent of hiring managers pinpoint cyber security as the most important digital skill for new hires from other sectors, alongside robotics and AI. This pits petrochemicals against new competitors such as the cyber security sector in a contest for skills.

Young says: “In several sectors which are prime political targets for cyber-attacks, from petrochemicals to nuclear, we are seeing increasingly stringent cyber security rules. The digitalisation of legacy systems during the pandemic has opened the sector up to new threats and driven rising demand for cyber skills alongside data and AI.”

Interestingly, commercial awareness skills are more likely to be sought from outside the energy industry than anywhere else. De Bruyn observes: “The best in-house engineers are not always commercially-minded because business skills weren’t previously taught in engineering degrees. I often look outside the industry to find soft skills and business nous. That said, younger engineers often have a more diverse skillset.”



TECHNICAL SKILLS DESIRED BY HIRING MANAGERS VS. POSSESSED BY PROFESSIONALS





6. ESG

With the rise of belief-driven employees, ESG is cited as a factor in joining or remaining with the business for 87 per cent of respondents. Indeed, 57 per cent say it is a major factor.

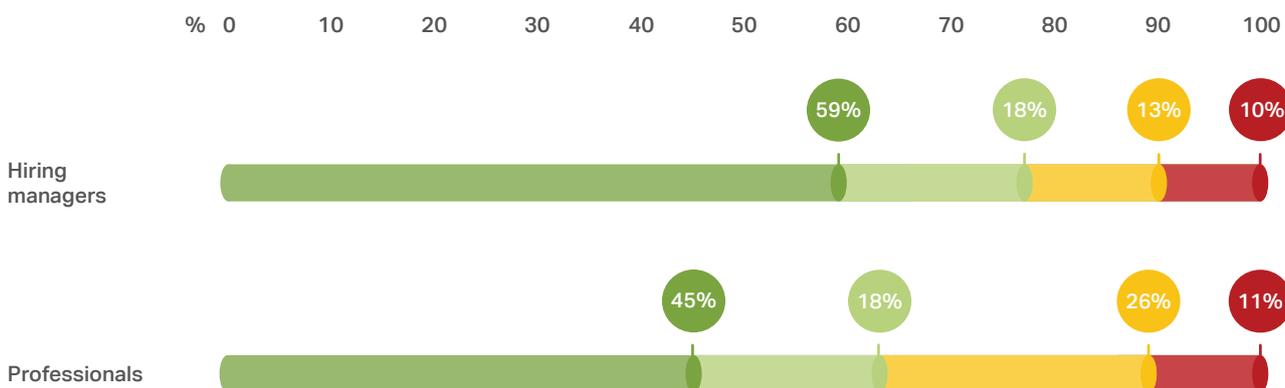
De Bruyn comments: "During onboarding, 80 per cent of new recruits also say their primary reason for joining is our Green Circle, a new part of the company focused on the energy transition. Our internal transfers are also increasingly towards the Green Circle. This demonstrates that embracing the energy transition is now key to attracting a new generation of talent."

59%

of hiring managers and 45 per cent of professionals believe their companies' ESG plans are sufficiently robust.

IS YOUR COMPANY'S ESG PLAN SUFFICIENTLY AMBITIOUS AND ROBUST?

● Yes ● No ● I don't know ● My company doesn't have an ESG plan



"During onboarding, 80 per cent of new recruits say their primary reason for joining is our Green Circle, a new part of the company focused on the energy transition."

– Leon De Bruyn

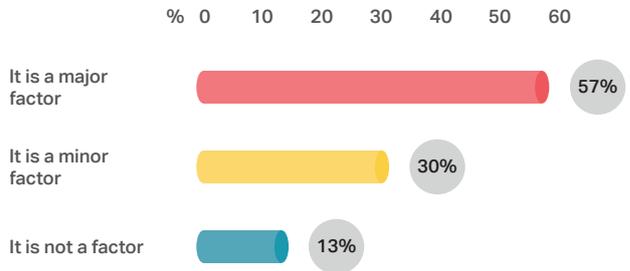
Fortunately, satisfaction with ESG is relatively high with just over half (51 per cent) of respondents saying their organisation's ESG policies are sufficiently robust. On average, respondents award their organisation 3.5 stars out of 5 on environmental and social issues and 3.56 on governance.

Women are more likely than men (19 per cent vs 11 per cent) to say ESG is the prime reason for moving to another energy sector, demonstrating that ESG policies could also improve workforce diversity.



On average, respondents award their organisation 3.5 stars out of 5 on environmental and social issues and 3.56 on governance.

DOES ESG ACTIVITY INFLUENCE YOUR LIKELIHOOD OF JOINING OR REMAINING WITH A BUSINESS?



“Embracing new ways of working is fundamental to improving workforce diversity. For example, remote operations allow primary care-givers to take on high-level roles without relocating.”

– Janette Marx

While women are also significantly more likely than men (71 per cent vs 51 per cent) to pinpoint proximity to family as a barrier to relocation, only nine per cent of women receive enhanced maternity leave and only 36 per cent receive remote working or flexible hours as part of their employment package. With this study showing only 13 per cent female representation in the current workforce, this indicates the lack of family-friendly and flexible working policies is also hampering workforce diversity.

Marx says: “Embracing new ways of working is fundamental to improving workforce diversity. For example, remote operations allow primary care-givers to take on high-level roles without relocating.”



7. ATTRACTING AND RETAINING TALENT

The petrochemicals sector faces the prospect of losing talent to new competitors seen as more technologically innovative and progressive. While career progression is consistently the prime reason for switching jobs, innovation and ESG are now among the second biggest motives for moving to another energy sector, far ahead of remuneration or job security. And in terms of top choices for a switch, renewables is ranked second only to the traditional choice of oil and gas, possibly due to its innovative and environmentally-friendly image.

De Bruyn observes: “We are perceived as lagging behind other sectors on innovation and green energy. This poses a talent retention challenge because younger workers value new technology and sustainability. There are major innovations happening in petrochemicals from green ammonia to AI, but we need to get better at promoting them to new and existing talent.”

“The sector needs to look beyond oil and gas to attract the skills necessary for navigating the technological transformation and energy transition.”

– *Janette Marx*

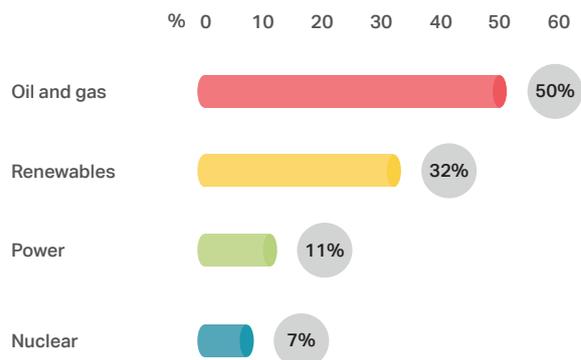
Talent is moving both ways, with 22 per cent of the current workforce having transferred from another energy sector in the last 18 months. Yet the overwhelming majority (62 per cent) came from oil and gas, where there is a close synergy in skillsets, indicating that the sector may be over-reliant on its upstream cousin for talent at the expense of skills from newer sectors.

50%

of those considering switching to another energy sector favour a move into oil and gas.

Marx notes: “There is a healthy recent influx of talent, but the sector needs to look beyond oil and gas to attract the skills necessary for navigating the technological transformation and energy transition. Promoting the recent diversification of petrochemical products and markets could be the key to diversifying its talent pool. For example, younger workers from other sectors may not realise that biobased fuels hold the key to decarbonising sectors like shipping while high-performance plastics could lower the cost and weight of Electric Vehicles. Petrochemicals could appeal to younger workers from other sectors by offering them the chance to help drive product diversification, sustainable innovations and digital transformation.”

WHICH ENERGY SECTOR WOULD YOU BE MOST INTERESTED IN SWITCHING TO?

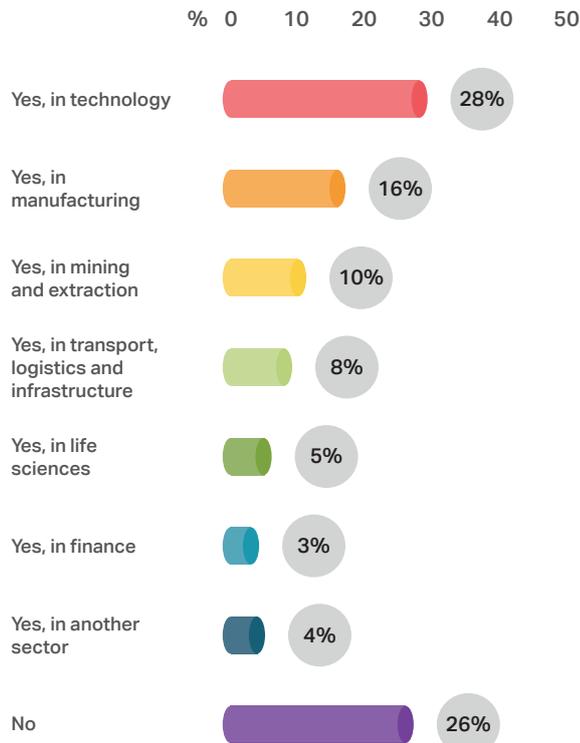




Innovation and ESG are now the joint second biggest motives for those considering moving to another energy sector, far ahead of remuneration or job security.

Seventy-three per cent would also consider switching to a non-energy sector in the next three years, with technology the top choice for 28 per cent of respondents. After career progression, interest in the wider industry is the second biggest reason, followed by innovation.

WOULD YOU CONSIDER MOVING TO A ROLE IN A NON-ENERGY SECTOR IN THE NEXT THREE YEARS?



When it comes to ensuring that their organisation has the skills required to handle the challenges posed by the rapidly changing global energy landscape, professionals first call for improved in-house learning and development (67 per cent), retraining of existing employees (47 per cent) and mentorship (40 per cent). The first two align nicely with measures hiring managers are taking on 59 per cent and 57 per cent, respectively. Yet hiring managers are more likely to deploy technologies such as AI and automation (52 per cent) than mentorship programmes (35 per cent).

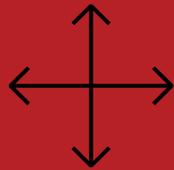
73%

of respondents would consider leaving energy altogether in the next three years.

Given the role of career progression as a motivator for those considering switching out of the sector, could this be an oversight? Marx notes: "In-house talent development is not only a matter of retraining, but also of retaining the workforce. Modern workers value personal progression very highly and companies need to give them every opportunity to grow. Mentorship is an important weapon in that armoury."

"In-house talent development is not only a matter of retraining, but also of retaining the workforce. Modern workers value personal progression very highly and companies need to give them every opportunity to grow."

– Janette Marx



Summary Petrochemicals

We have witnessed two years of unprecedented upheaval across the sector, a double-edged sword which brings opportunities and risks. This is epitomised by the energy transition, both a risk and an opportunity to tap into new markets and an environmentally conscious talent pool.

The rapid digitalisation of workforce functions creates a significant technical skills gap but could also attract a new generation that values innovation. The urgent need to upskill workforces for a changing energy industry also presents an opportunity to fast-track employees up the career ladder, boosting talent retention. Ultimately, these trends could enable long overdue diversification of an industry traditionally over-reliant on oil and gas for talent and raw materials.







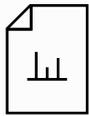
GETI
Global Energy Talent Index



Power



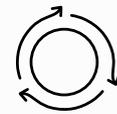
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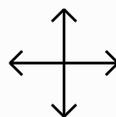
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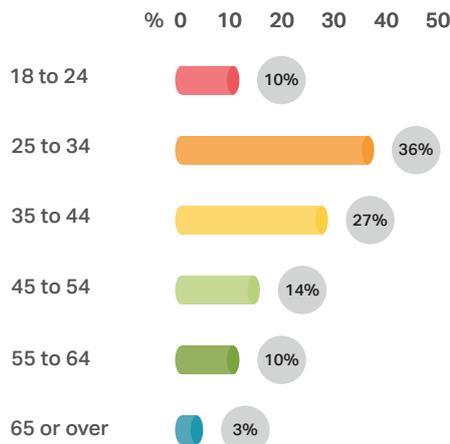


Power

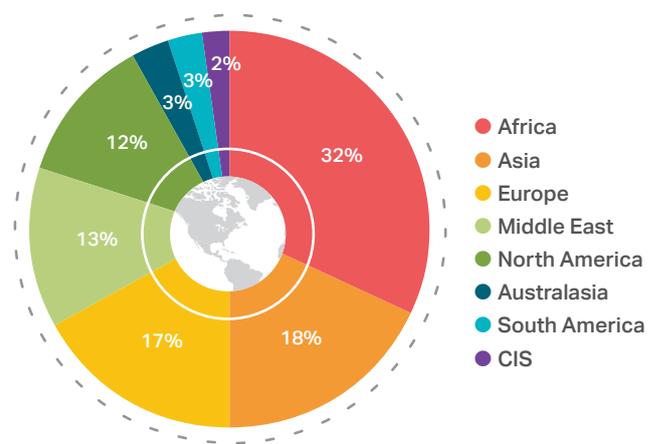
The power sector is fundamental to the decarbonisation and electrification of the future economy and must significantly scale up its talent and tech toolkit to shoulder this responsibility. The skills shortage tilts the balance of power towards professionals. And as the power, technology and renewables sectors converge around clean smart grids, skills are increasingly interchangeable between them. The winners in this cross-sector talent race will be those that can attract an ambitious, mobile, mission-oriented workforce.

1. DEMOGRAPHICS

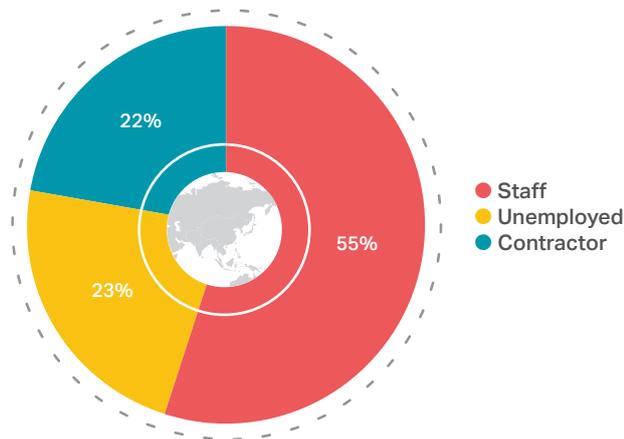
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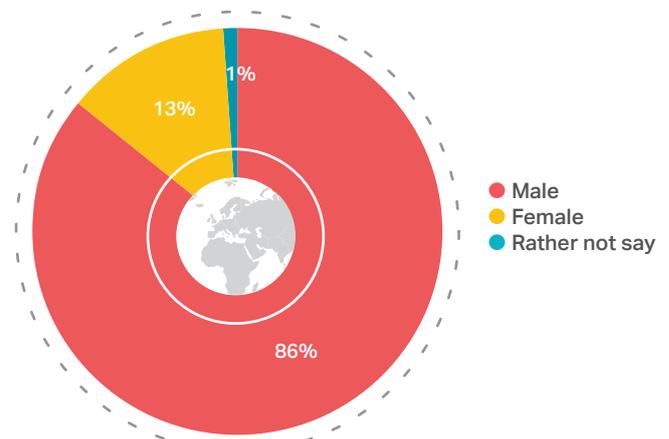
REGION



EMPLOYMENT STATUS



GENDER



2. SALARIES

A post-pandemic recovery has produced more pay rises and fewer pay cuts than last year. Forty-two per cent report a pay rise compared to 38 per cent last year and 20 per cent report a rise exceeding five per cent, up from 8 per cent in GETI 2021.

PERMANENT WORKER ANNUAL SALARY, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	54,547	46,379	94,942	44,397	58,240	41,440	49,230	81,340
Business Development Manager	59,351	49,905	84,000	62,118	61,730	40,800	50,143	79,430
CAD Technician/ Operator	28,759	27,422	36,623	23,572	40,639	22,600	26,718	44,100
Chemical Engineer	45,766	42,918	56,211	41,713	55,743	32,300	41,207	63,000
Civil Engineer	45,562	40,936	91,000	32,033	52,880	32,300	44,541	84,000
Commercial Manager	86,421	60,686	140,000	48,000	77,315	66,700	73,026	95,734
Commissioning Engineer	64,587	55,165	84,000	50,057	69,610	43,000	59,649	91,000
Construction Manager	67,004	59,348	140,000	56,471	67,705	45,600	60,312	105,000
Control Room Operator	40,438	32,196	63,000	37,788	40,146	28,800	33,799	59,080
Design Engineer	52,032	35,125	84,000	39,014	53,847	47,800	41,248	70,000
Electrical Engineer	55,554	45,403	94,500	41,515	62,368	51,000	49,345	84,000
HSE Manager	56,939	47,836	126,000	53,648	66,080	40,800	48,941	98,000
Inspection Engineer	55,459	51,902	84,000	41,164	50,121	42,600	51,469	75,874
Instrumentation Engineer	59,283	51,724	94,500	50,588	65,404	43,200	55,103	91,000
Maintenance Engineer	56,817	44,640	84,000	42,728	56,769	45,300	55,678	77,000
Mechanical Engineer	50,094	40,503	84,000	39,515	57,989	41,000	48,945	84,000
Plant Manager	52,149	44,925	91,000	56,471	54,980	36,300	52,288	68,590
Project Engineer	60,569	52,086	112,000	47,415	66,710	42,800	55,724	84,000
Project Manager	61,578	62,377	154,000	56,471	71,978	46,300	59,017	98,000
QA/QC Inspector	50,294	43,900	84,000	37,072	47,529	48,000	39,205	91,000
Quantity Surveyor	42,286	38,584	112,000	30,584	45,265	31,600	38,246	84,000



CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	CIS	Europe	Latin America	Middle East	North America
Averages	378	355	481	268	428	291	477	582
Business Development Manager	398	367	534	259	445	311	412	566
CAD Technician/ Operator	191	224	269	190	297	162	258	315
Chemical Engineer	334	330	420	259	425	221	412	450
Civil Engineer	336	310	415	212	390	225	515	600
Commercial Manager	537	443	629	344	544	530	618	678
Commissioning Engineer	420	413	649	286	486	275	515	650
Construction Manager	455	422	568	260	490	312	618	750
Control Room Operator	276	250	362	234	330	210	309	422
Design Engineer	353	279	456	312	382	337	361	500
Electrical Engineer	392	337	504	271	445	377	515	600
HSE Manager	395	356	546	317	483	264	515	700
Inspection Engineer	394	387	488	301	373	285	361	533
Instrumentation Engineer	417	334	520	299	465	290	515	650
Maintenance Engineer	380	337	460	302	395	284	515	550
Mechanical Engineer	363	314	463	276	417	285	515	600
Plant Manager	386	352	475	259	512	263	618	533
Project Engineer	412	383	490	277	485	283	515	600
Project Manager	432	501	557	270	507	328	721	700
QA/QC Inspector	376	409	459	295	359	356	361	650
Quantity Surveyor	308	359	358	141	337	220	361	600

42%

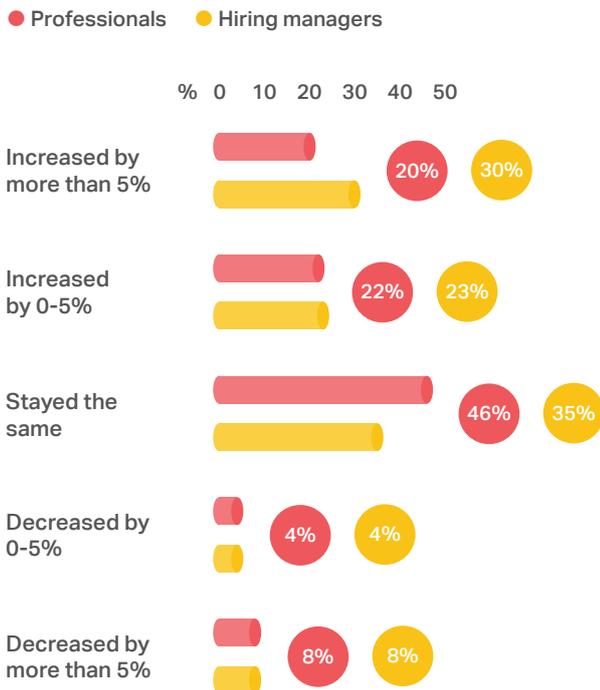
of professionals report a pay rise over the past year.

62%

of professionals expect their pay to increase over the next 12 months.

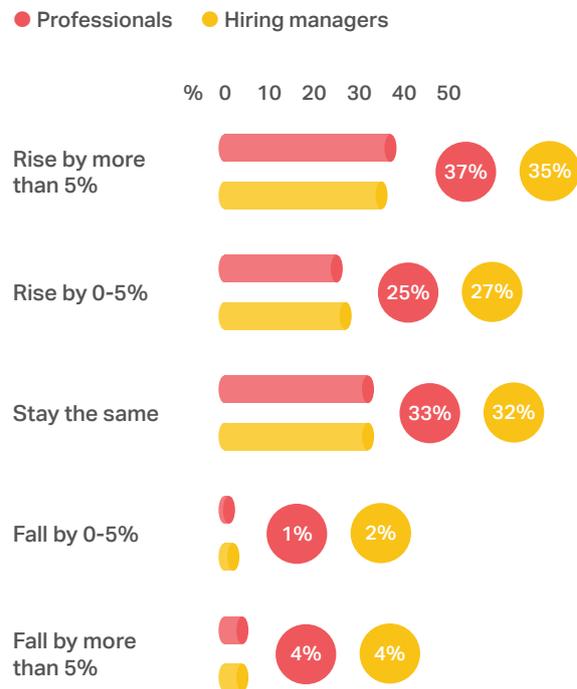
Hiring managers paint an even brighter picture, with 30 per cent reporting pay rises above five per cent. At the other end of the scale, 12 per cent say pay has fallen, down from 16 per cent last year. As with other energy sectors, pay remains below pre-pandemic levels, with 48 per cent receiving a pay rise and only eight per cent seeing reduced pay across 2019.

PAY CHANGES IN THE LAST 12 MONTHS



As the pandemic casts a long shadow over the recovery, professionals are slightly more pessimistic than they were previously about future pay prospects. Sixty-two per cent expect salaries to rise next year compared with 63 per cent last year and 71 per cent two years ago. Thirty-six per cent expect a rise of more than five per cent, down from 39 per cent last year.

PAY EXPECTATIONS FOR THE NEXT 12 MONTHS



“Salaries are rebounding but pay expectations are haunted by continued uncertainty.”

– Janette Marx

Janette Marx, CEO of Airswift, says: “Salaries are rebounding but pay expectations are haunted by continued uncertainty as new COVID variants raise the spectre of further lockdowns. People are uncertain about when their lives will return to normal.”



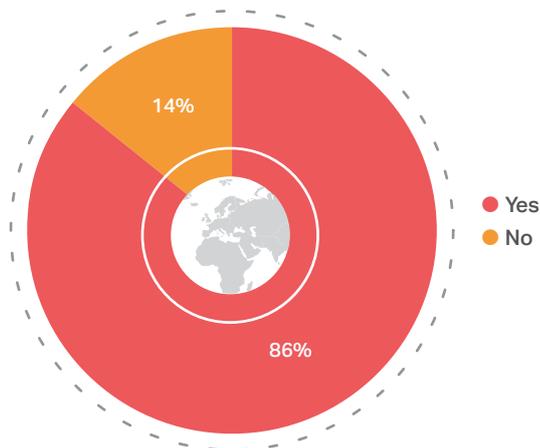
3. GLOBAL MOBILITY

Interest in relocating to another region for work remains high but slightly lower than previous years as a continuing cloud of uncertainty hangs over international travel. Eighty-six per cent would consider an international transfer in the coming three years compared with 88 per cent in each of the last two years. Forty-eight per cent say their company provides cross-regional transfers.

Yet only 25 per cent of respondents receive support with housing relocation as part of their employment package, indicating employment policies are restricting workforce mobility. Career progression is the primary driver, cited by half of those open to relocation.

Josh Young, Director of Energy Jobline, says: "This is an ambitious generation and career progression is the main motivator for changing career paths. Giving employees greater opportunities and support for international transfers is critical to talent retention."

WOULD YOU CONSIDER RELOCATING TO ANOTHER REGION FOR YOUR JOB?



25%

of respondents receive relocation support as part of their employment package.

"This is an ambitious generation and career progression is the main motivator for changing career paths."

– Josh Young

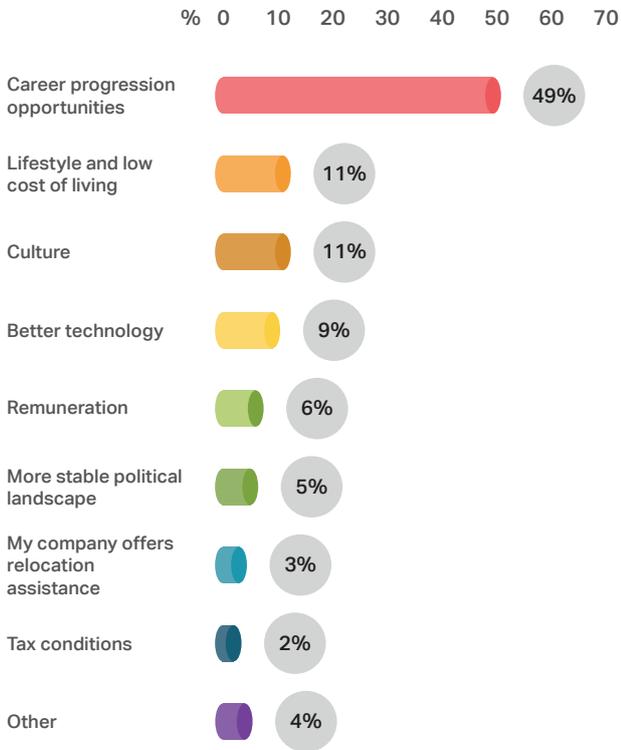
As a growing, project-based sector, 22 per cent of the current workforce is now composed of contractors and 27 per cent are expats. Marx says: "With many governments committing to all-electric transport and clean energy, grids will require major upgrades to connect with more places and clean power sources. With so many new projects coming online, demand for international workers and contractors will grow as companies scale their workforces and workers move to take advantage of these opportunities."

Europe remains the most attractive destination for international transfers at 33 per cent, reflecting the region's world-leading role in the global energy transition. North America is second choice for 18 per cent of respondents, as the US Infrastructure Bill drives a major overhaul of its power grids. The Middle East has replaced Australasia in the top three in the wake of Australia and New Zealand's tough international travel restrictions.

Kathleen McAllister, Corporate Board Director and former CEO, observes: "The migratory map of the workforce corresponds with the map of the energy transition and Europe is ahead of other regions in powering the economy with clean electricity. North America is in demand due to its recent investment in green energy infrastructure."



WHAT IS YOUR MAIN REASON FOR BEING ATTRACTED TO THIS LOCATION?



Among the minority resistant to moving, 48 per cent cite proximity to family as the main reason. Only eight per cent of respondents get enhanced maternity leave as part of their employment package and a minority (38 per cent) receive remote working or flexible hours. This indicates that a lack of family-friendly and flexible working options could be restricting professionals' career choices.

33%

of those open to switching regions for work favour a move to Europe.

"The migratory map of the workforce corresponds with the map of the energy transition and Europe is ahead of other regions in powering the economy with clean electricity."

– Kathleen McAllister





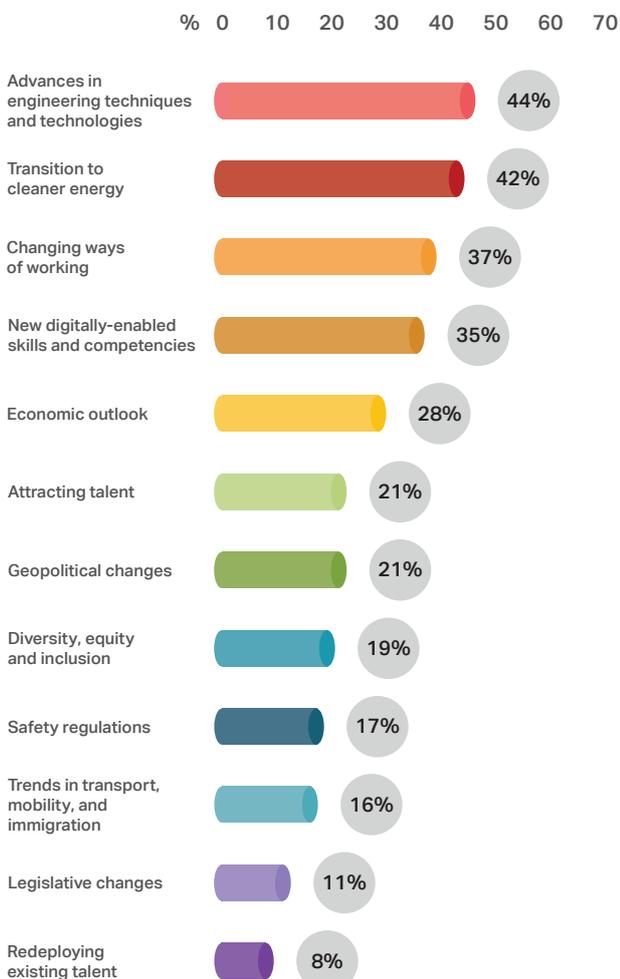
4. CHALLENGES AND OPPORTUNITIES

Creating clean grids that balance intermittent wind and solar supply with greater demand represents an unprecedented challenge. In recognition of this, the transition to cleaner energy has overtaken economic outlook as respondents' choice for the second biggest challenge facing the sector after COVID-19. It is also cited as among the sector's greatest opportunities by 42 per cent of respondents.

“The sector feels the weight of responsibility to get project decisions right so that the world has affordable, clean power for the future.”

– Kathleen McAllister

MOST IMPORTANT OPPORTUNITIES OVER THE NEXT THREE YEARS



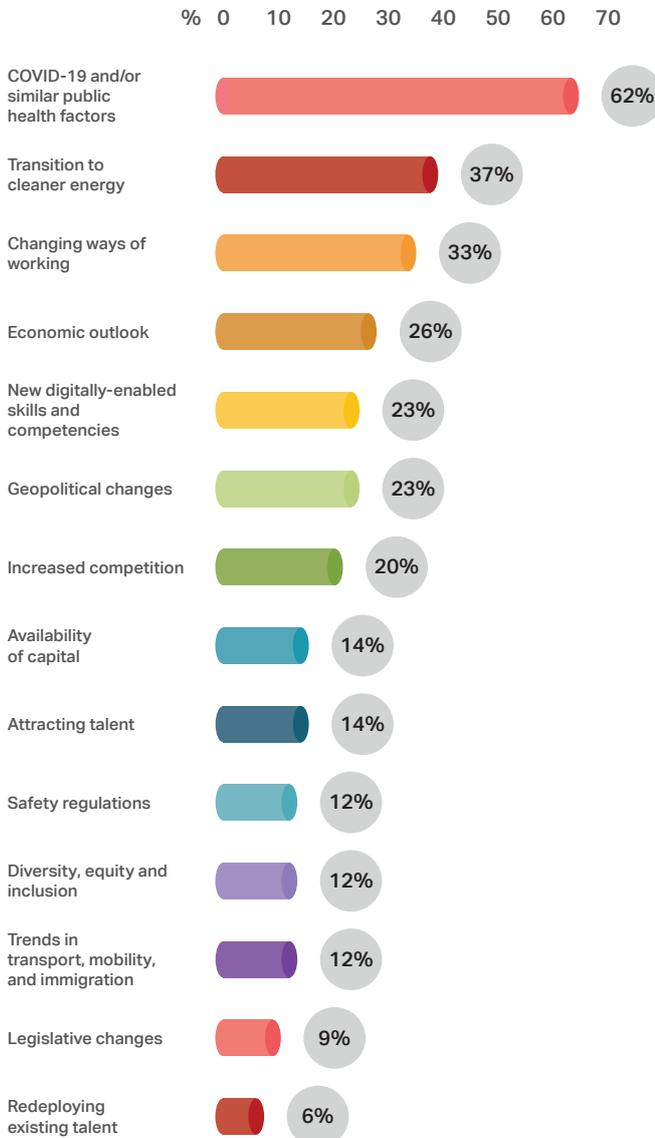
McAllister notes: “The sector feels the weight of responsibility to get project decisions right so that the world has affordable, clean power for the future. There are major challenges around grid resilience, flexibility and integrating renewables into grids and these will require new tools, techniques and talent from other sectors.”

It is therefore unsurprising that 44 per cent pinpoint advances in engineering techniques and technologies as a big opportunity for the sector – more than any other option. McAllister observes: “With intermittent energy and rising extreme weather events, there is a major opportunity to boost grid resilience and adaptability through new engineering techniques and technologies such as utility-scale batteries.”

42%

of respondents rank the energy transition among the most important opportunities facing the sector.

MOST IMPORTANT CHALLENGES OVER THE NEXT THREE YEARS



Respondents are also divided on whether changing ways of working represent a risk or an opportunity. Thirty-seven per cent pinpoint changing ways of working as a major opportunity – placing it third on the list – but 33 per cent rank it as an important challenge. This divide is reflected in the fact that fewer than four-in-ten respondents currently receive remote working or flexible hours as part of their employment package.

36%

of respondents rank the energy transition among the sector's biggest challenges.

Marx notes: "Companies that don't adapt to new working preferences risk losing talent to more progressive competitors. Yet new ways of working offer an opportunity to draw on a wider talent pool from primary care givers to younger professionals."

Financial concerns have notably subsided since the pandemic, with economic outlook and the availability of capital dropping out of the top three challenges cited by respondents. Availability of capital has fallen in importance from third place with 42 per cent last year to joint eighth on 14 per cent this year. Marx says: "Governments around the world pledge support for electrification of the economy, which means the sector's financial outlook is bright."

"New ways of working offer an opportunity to draw on a wider talent pool from primary care givers to younger professionals."

– Janette Marx



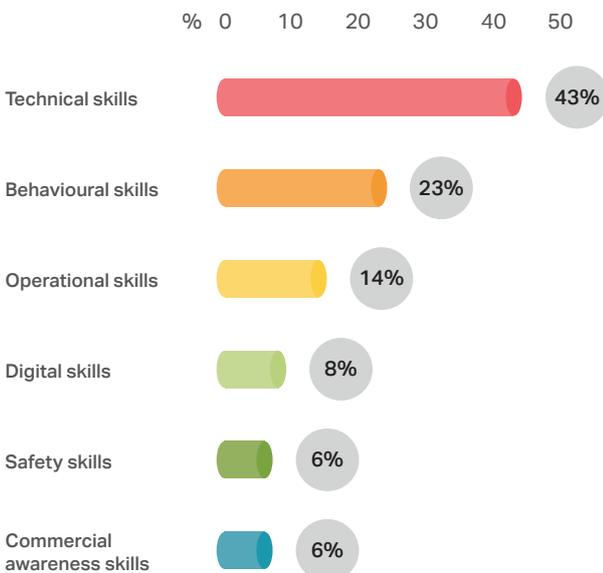
5. SKILLS

The rise of smart grids and the energy transition means technical skills are considered the most important for creating a flexible, future-proof power workforce. This is producing a skills shortage, with hiring managers now as likely to seek technical skills outside from the wider sector as in-house. Fourteen per cent also cite attracting talent as one of the biggest challenges in the next three years.

“The energy transition means engineering skills are in demand across all sectors. Power firms must now fight as hard to retain as to recruit new engineers.”

– Josh Young

MOST IMPORTANT SKILLS FOR A FUTURE-PROOF ENERGY WORKFORCE



Engineering is top of the wish list of technical skills. Sixty-two per cent of hiring managers pinpoint engineering as the most sought-after technical skill when hiring from other energy sectors. This is aligned with the experiences of professionals, as 61 per cent say engineering is the most valuable transferrable technical skill in their resume.

Josh Young, Director of Energy Jobline says: “The energy transition means engineering skills are in demand across all sectors. Power firms must now fight as hard to retain as to recruit new engineers.”

Increasingly, respondents are attempting to plug the skills gap with machines. When asked how their organisations should ensure they have the requisite skills for a changing energy landscape, 46 per cent say they should use AI and automation, above retraining and mentoring existing employees or hiring outside talent.

This is reflected in how organisations are already adapting skills to the new energy environment. After improved learning and development (61 per cent), companies are now equally likely to employ AI and automation as to retrain existing employees (both 52 per cent) and more likely to use automation than to hire from the wider industry.

Young says: “Companies should be wary of stop-gap solutions such as automation, which is not a silver bullet for skills shortages. Machines can only augment rather than replace human talent and are no substitute for hiring and upskilling.”

Operational skills are also more likely to be sought from the wider industry than within the organisation, and the operational skills in greatest demand are those that can help boost in-house talent. Learning and development and people management (both on 48 per cent) follow customer relationship management (60 per cent) among the most in-demand operational skills for outside hires.

Marx says: “Companies are bringing in operational professionals with strong educational and people skills to solve the skills gap. Upskilling talent is vital to prevent a skills exodus, by giving professionals opportunities for career progression and internal transfers.”



TECHNICAL SKILLS DESIRED BY HIRING MANAGERS VS. POSSESSED BY PROFESSIONALS





6. ESG

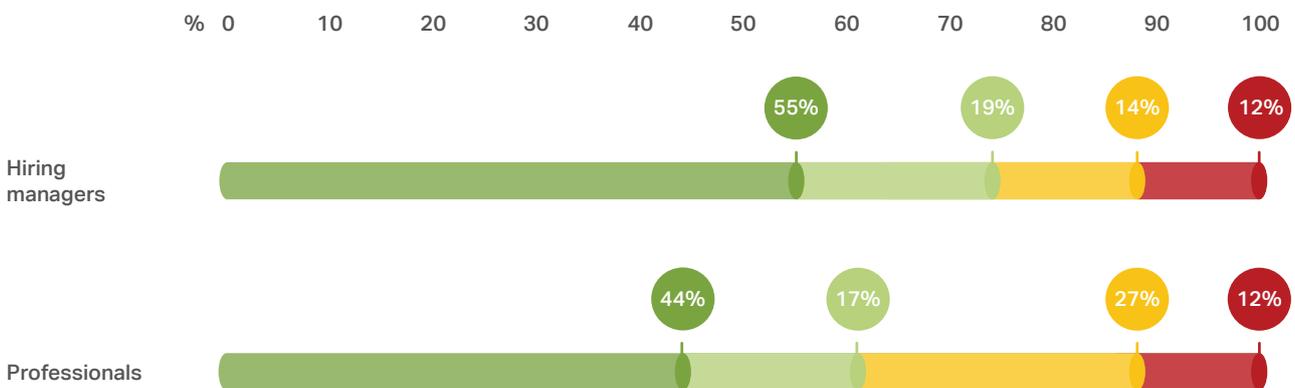
As skills shortages shift the balance of power towards professionals, they are increasingly choosing employers aligned with their values. Eighty-six per cent of power respondents say ESG is now a factor in whether to remain with or resign from their organisation and 58 per cent cite it as a major factor. ESG is now the second biggest driver for moving to another energy sector, ahead of interest in the wider industry or innovation. This suggests that ESG performance now forms a vital recruitment tool.

McAllister notes: "Environmental consciousness rose during the pandemic as lockdowns reduced emissions, showing how changing energy use makes a real impact. Clean energy is instrumental to the energy transition and our sector is perfectly positioned to capitalise on this and build environmental performance into employer brands."

On average, power professionals award their employers 3.3 out of 5 stars on environmental performance, 3.3 on social issues and 3.38 on governance.

IS YOUR COMPANY'S ESG PLAN SUFFICIENTLY AMBITIOUS AND ROBUST?

● Yes ● No ● I don't know ● My company doesn't have an ESG plan



86%

of respondents say ESG is a factor determining whether they'll remain with or resign from an organisation.

Satisfaction with ESG is high with 48 per cent stating that their employers' ESG policy is sufficiently robust. On average, power professionals award their employers 3.36 out of 5 stars on environmental performance, 3.34 on social issues and 3.42 on governance.



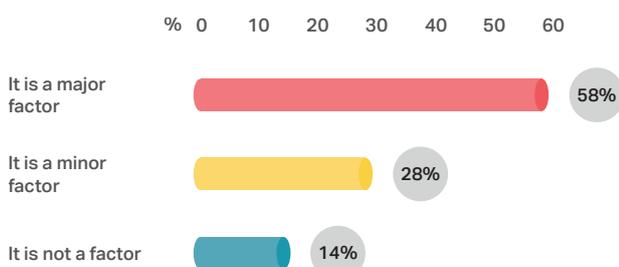
Forty-five per cent say their organisation has changed direction to adapt to the energy transition and 88 per cent feel positive about this, indicating that the power sector’s pivotal role in decarbonisation boosts its appeal among modern professionals. Yet 29 per cent say their organisation has not adapted to the transition.

Marx says: “The decarbonisation and electrification of the economy transforms environmental performance into a key brand differentiator for recruiters in this space. Yet those employers that do not adapt to the energy transition risk falling behind in the talent race.”

“More equitable pay and benefits could attract more women into the workforce, boosting skills, diversity and social performance.”

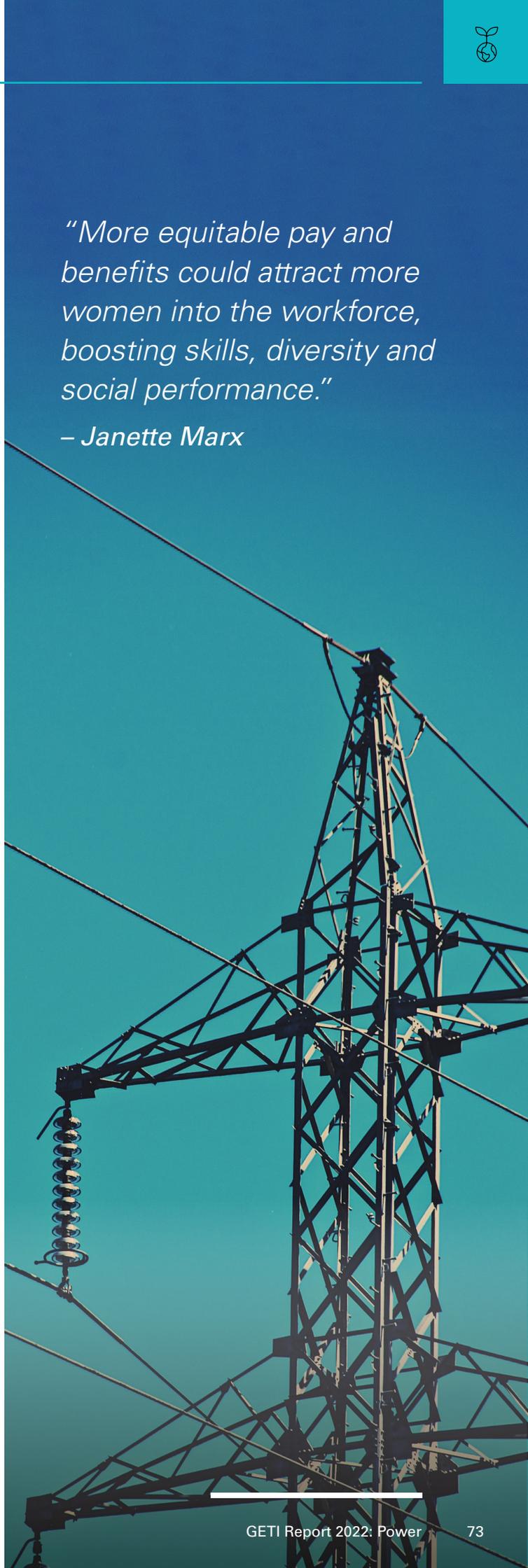
– Janette Marx

DOES ESG ACTIVITY INFLUENCE YOUR LIKELIHOOD OF JOINING OR REMAINING WITH A BUSINESS?



The sector also has an opportunity to boost its social performance by creating diversity-friendly workplaces. Nineteen per cent cite diversity, equity and inclusion as among the greatest opportunities for the sector over the next three years yet just 13 per cent of respondents are female. Female respondents were more likely to receive pay cuts (14 per cent vs 11 per cent) and less likely to receive pay rises (40 per cent vs 43 per cent). Fewer female respondents get relocation support (22 per cent versus 26 per cent of men) as part of their employment package and women are more likely to cite this as a key impediment to international transfers (11 per cent against eight per cent of men). Women are also more likely to cite lack of opportunities for long-term career advancement as an obstacle to overseas moves (11 per cent compared to seven per cent of men).

Marx argues: “More equitable pay and benefits could attract more women into the workforce, boosting skills, diversity and social performance. Companies should build employee benefits around supporting career progression and international transfers for under-represented groups.”



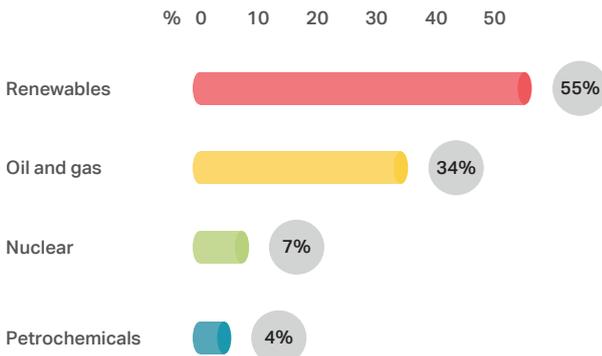


7. ATTRACTING AND RETAINING TALENT

An ambitious, environmentally conscious workforce with transferrable skills forms an easy target for green energy and technology competitors. Eighty-six per cent of power professionals would consider switching to another energy sector within three years, and renewables is the sector of choice. Career progression (32 per cent) and ESG (17 per cent) are the biggest drivers behind this.

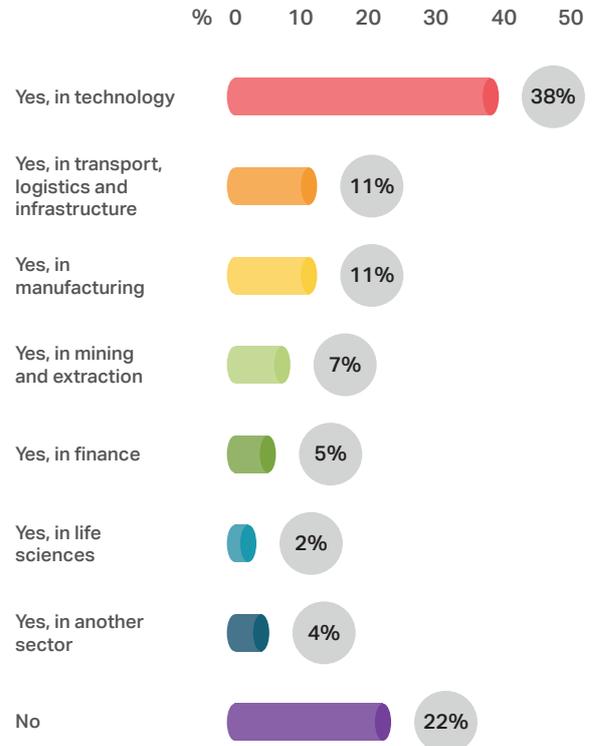
Marx says: "The modern workforce values individual attainment but chooses companies aligned with their beliefs. Employers must compete on ESG credentials and career progression opportunities."

WHICH ENERGY SECTOR WOULD YOU BE MOST INTERESTED IN SWITCHING TO?



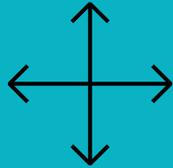
Three-quarters would leave for a non-energy sector with most attracted to technology. Career progression (31 per cent), interest in the wider industry (15 per cent) and innovation (14 per cent) are the prime drivers of industry preference. Young says: "The skills needed for smart grids, from digital twins to data analytics, are easily transferrable to the technology industry. Giving professionals more power and responsibility for driving sector-wide innovation will be critical to winning the war for talent against Silicon Valley competitors."

WOULD YOU CONSIDER MOVING TO A ROLE IN A NON-ENERGY SECTOR IN THE NEXT THREE YEARS?



The sector is also benefiting from an influx of talent from other energy sectors with similar skills. A quarter of the current workforce migrated from another sector in the past 18 months. A third moved from oil and gas where there are clear skills synergies and 28 per cent moved from renewables, which increasingly intersect with power grids.

McAllister says: "Professionals are recognising that the demand for clean energy is increasing, and the technical skills needed in traditional energy are clearly transferrable to power, with electrical engineers widely used in oil and gas facilities. Power is also a more stable sector with greater job security. Recruiters could emphasise these differentiators to attract talent from across the industry."



Summary Power

The power sector is undergoing a technological revolution to create resilient, flexible grids that support the decarbonisation and electrification of the world economy. Resilient, flexible grids will also require an adaptable and robust skills base, which is increasingly found outside the sector.

Cross-sector demand for new engineering techniques, tools and talent will involve competing for talent against sectors such as renewables and technology. This will mean appealing to an ambitious, values-driven workforce of tech progressives, who are moved by the mission as much as the money.

The role of clean power and smart grid technology in combating climate change means the sector is perfectly poised to attract this new wave of talent.







GETI
Global Energy Talent Index

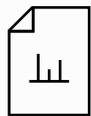


energyjobline

Nuclear



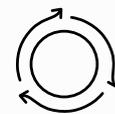
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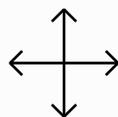
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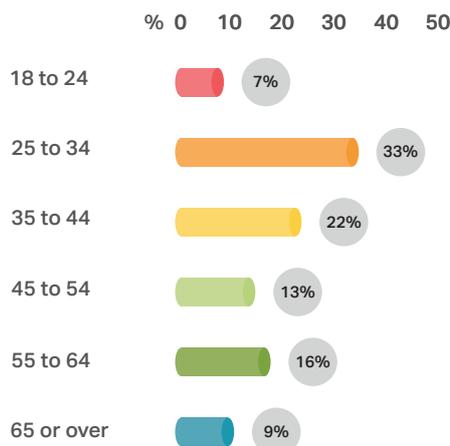


Nuclear

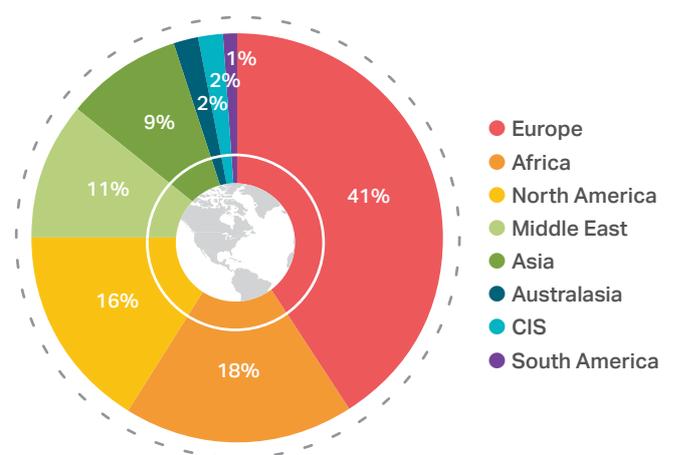
It will take more than a pandemic to rock the traditionally robust and resilient nuclear sector. Indeed, it remains GETI's epitome of stability. Professionals are settled and satisfied with their sector's direction, but also increasingly aware of their worth and opportunities elsewhere. Organisations are rightly looking outwards to hire in new skills and talents but need to keep an eye turned inwards to stay focused on retention, too.

1. DEMOGRAPHICS

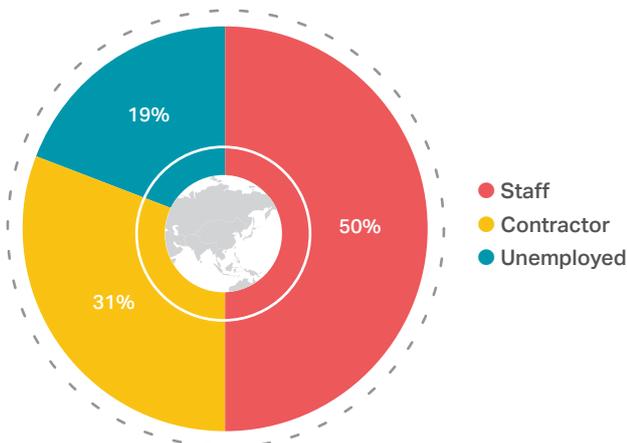
AGE



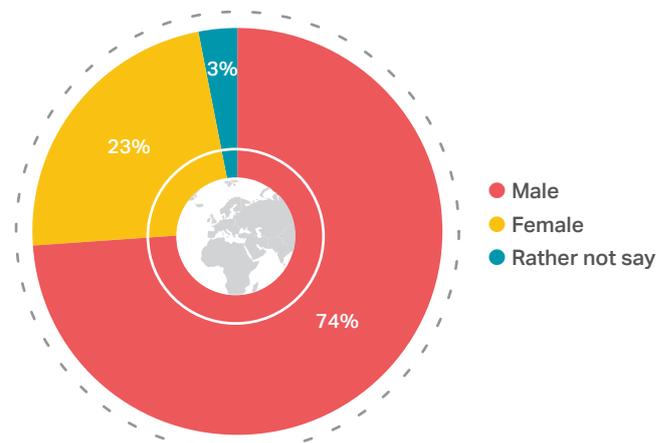
REGION



EMPLOYMENT STATUS



GENDER



2. SALARIES

Salaries in the nuclear sector present a conundrum, with professionals and hiring managers reporting vastly different pictures. Only 36 per cent of professionals report an increase this year, essentially unchanged from 37 per cent last year. Before the pandemic, this figure was a healthier 54 per cent.

PERMANENT WORKER ANNUAL SALARY, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Asia	CIS	Europe	Middle East	North America
Averages	49,621	48,590	61,346	52,709	94,511
Business Development Manager	50,039	56,471	60,757	50,990	79,509
Chemical Engineer	43,940	42,580	55,288	41,145	62,194
Commercial Manager	62,584	46,589	76,583	71,827	95,108
Commissioning Manager	66,325	53,990	86,026	80,681	112,000
Construction Manager	60,018	50,824	67,787	61,365	98,000
Electrical Engineer	48,373	48,726	63,724	52,831	95,200
Environmental Engineer	45,384	37,419	53,325	50,975	98,000
Facilities Manager	43,970	53,648	55,537	56,845	107,800
HSE Manager	48,190	50,824	65,949	49,683	119,000
Maintenance Engineer	45,552	43,244	57,236	56,408	98,000
Mechanical Engineer	40,952	40,950	57,832	49,616	105,000
Nuclear Engineer	57,659	44,141	63,761	55,455	112,000
Planner/Scheduler	40,686	36,689	43,237	43,936	91,000
Process Engineer	52,515	47,417	65,807	57,985	105,000
Project Manager	53,660	62,118	71,934	59,509	119,000
Purchasing Manager/Buyer	36,409	56,471	50,655	42,088	77,000
QA/QC Manager	55,845	62,118	63,936	53,329	91,000
R&D Scientist	56,922	36,574	65,295	40,640	85,400
Supply Chain Manager	49,568	70,589	60,700	47,229	84,000
Training Coordinator	33,837	30,426	41,559	31,635	56,000



CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Asia	CIS	Europe	Middle East	North America
Averages	369	278	445	494	677
Business Development Manager	376	236	436	412	571
Chemical Engineer	336	263	401	412	485
Commercial Manager	452	330	538	618	669
Commissioning Manager	483	384	601	618	800
Construction Manager	438	261	492	618	700
Electrical Engineer	366	307	460	515	680
Environmental Engineer	342	217	382	412	700
Facilities Manager	336	224	407	412	770
HSE Manager	365	318	493	515	850
Maintenance Engineer	344	312	414	515	700
Mechanical Engineer	309	282	422	515	750
Nuclear Engineer	412	296	464	515	800
Planner/Scheduler	311	275	334	464	650
Process Engineer	382	292	475	515	750
Project Manager	395	269	521	721	850
Purchasing Manager/ Buyer	293	285	389	515	550
QA/QC Manager	406	259	469	515	650
R&D Scientist	399	266	442	361	610
Supply Chain Manager	361	295	444	412	600
Training Coordinator	269	187	312	309	400

36%

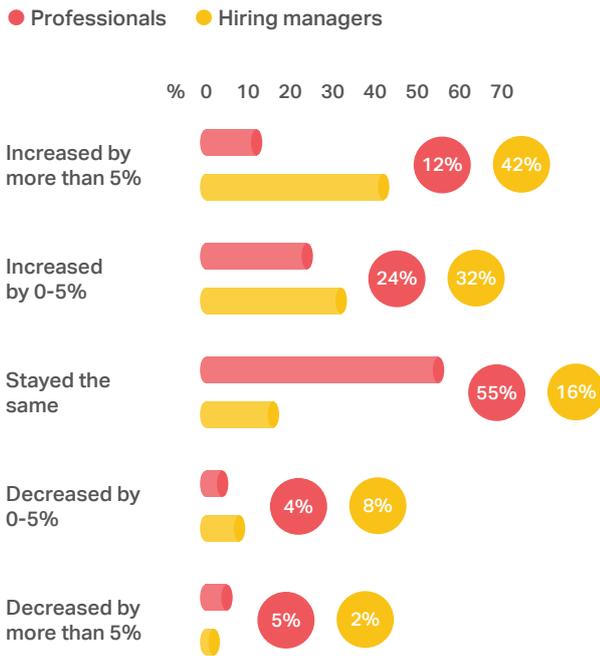
of professionals report a pay rise this year.

74%

of hiring managers report pay increases.

However, three-quarters of hiring managers report that salaries have increased. There was a similar discrepancy between respondent types last year, when 53 per cent of hiring managers reported a rise in pay, but the gulf has widened. How can that be?

PAY CHANGES IN THE LAST 12 MONTHS



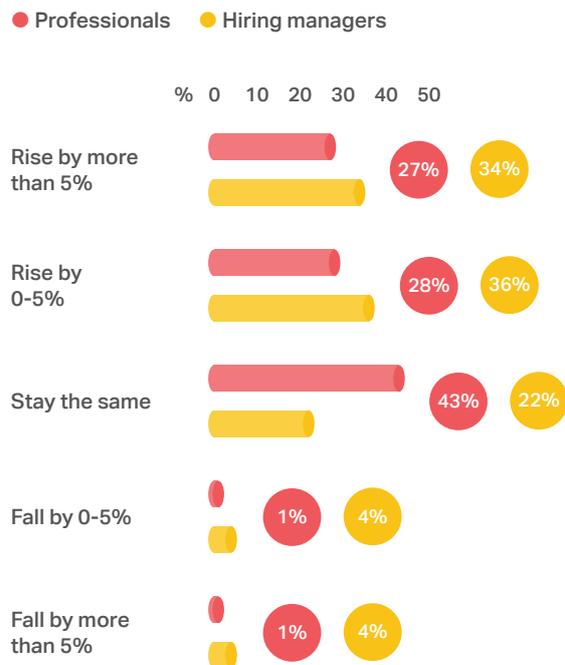
Janette Marx, CEO of Airswift, points out: "Hiring managers are likely to report on the current and future expectations with their access to the hard data, the budgets. The question is: how is that communicated and delivered since respondents are painting a bleaker picture?"

54%

of professionals expect pay to rise in the year to come.

Steven Brabec, Manager – Nuclear Project Technical Support at Dominion Energy, has a theory: "This may reflect the state of mind for some in the sector more than the true state of their pay. For example, in some parts of the world there is a lot of work to be had in decommissioning, but many professionals don't want to go there – they entered into this to generate nuclear power, not to wind it down. So the pay awards might be there, but maybe they're not attractive to some workers, and they feel down about that – especially following the pandemic which has put something of a shroud on how a lot of people have seen the world."

PAY EXPECTATIONS FOR THE NEXT 12 MONTHS



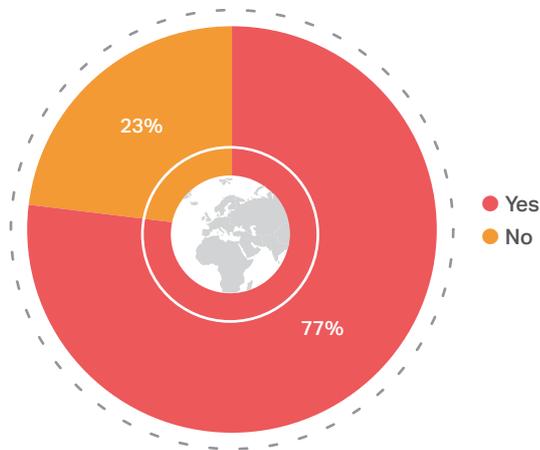
The good news, however, is that very few professionals report that pay has fallen – nine per cent, down from 13 per cent last year. Even better, they are optimistic about the future – 54 per cent expect a rise in the coming year, with 27 per cent expecting that to be by more than five per cent. Hiring managers corroborate this: 70 per cent expect a rise and only eight per cent a fall.



3. GLOBAL MOBILITY

The nuclear sector has consistently ranked the least globally mobile of the energy sectors surveyed, and this year little has changed in that regard. That said, over three quarters would consider relocating, but such ambitions are likely to go unrealised, with 48 per cent saying their employers do not offer cross-regional transfers.

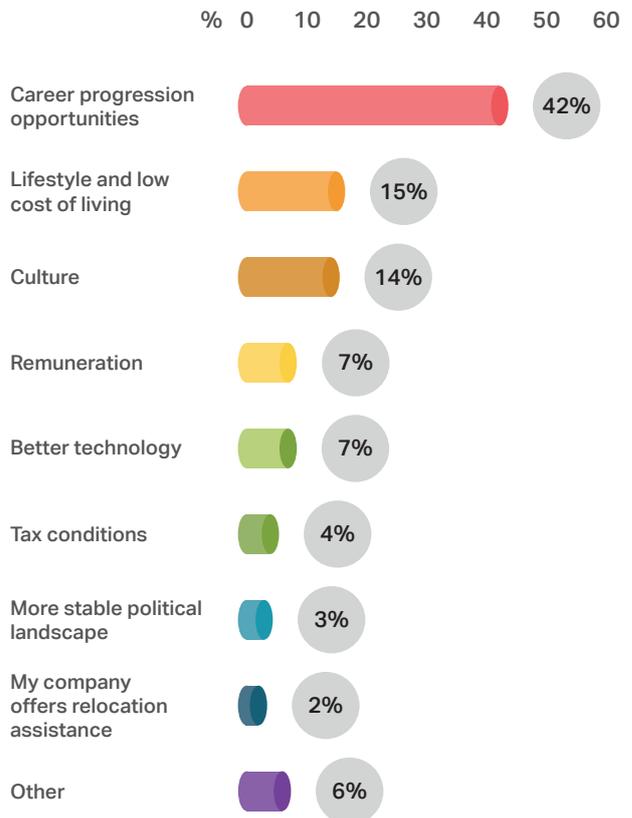
WOULD YOU CONSIDER RELOCATING TO ANOTHER REGION FOR YOUR JOB?



This year, the most popular destination is North America (chosen by 29 per cent of respondents), while Europe has slipped behind to second (21 per cent). The Middle East has overtaken South America in third choice (18 per cent), while the latter has plummeted from being the destination of choice for 14 per cent of respondents to just 4 per cent.

Why might this be? Josh Young, Director of Energy Jobline says: "Quite simply, it's down to the project pipeline – where the work is. Compared to other energy sectors, nuclear is made up of fewer, larger projects with direct exposure to national policies. That means just a few cancelled or delayed projects can easily impact an entire region's viability as a destination, and that's what we've seen this year, with some European projects struggling, for example."

WHAT IS YOUR MAIN REASON FOR BEING ATTRACTED TO THIS LOCATION?



For those adamant they want to stay put, family issues remain the main priority, with 54 per cent citing proximity to family as their reason to stay, and 9 per cent pointing to children's education.

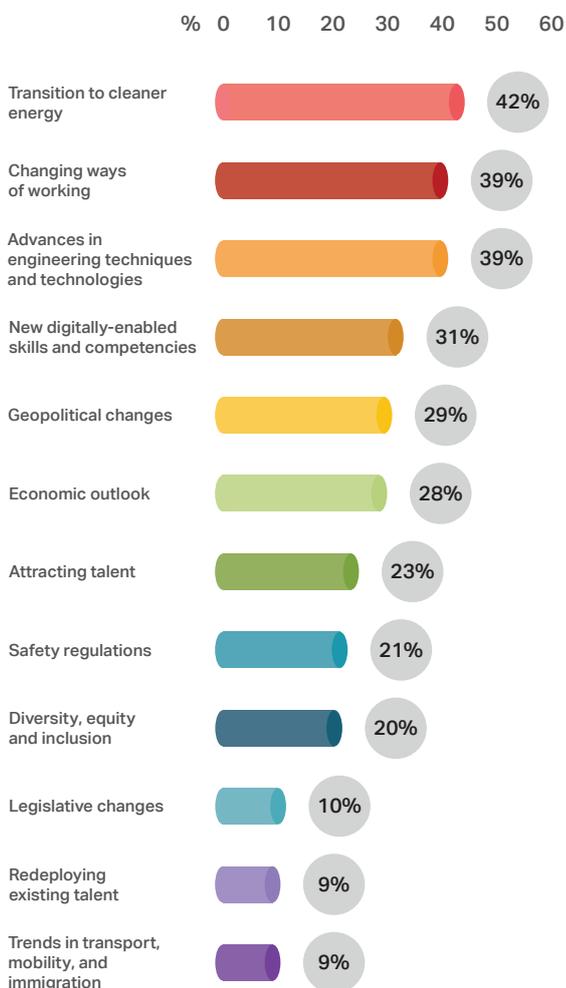
Indeed, career progression is the overwhelming motivator for a move, and selected by 42 per cent of respondents – up by 14 per cent on last year. Lifestyle and low cost of living (15 per cent) and culture (14 per cent) complete the top three.

This reflects experiences Brabec has heard in the sector: "I've had colleagues move, for example, to the Middle East and find it a tough work environment. The money is great, but there's the heat, the impact on family – I've seen others say 'no thank you' to great financial opportunities for these kinds of reasons."

4. CHALLENGES AND OPPORTUNITIES

In common with peers across the energy sector, 41 per cent of nuclear respondents cite COVID-19 and similar health concerns as the main challenges facing the sector. More interestingly, 32 per cent cite the clean energy transition (of which 42 per cent of respondents acknowledge as the greatest opportunity), and 28 per cent point to geopolitical challenges.

MOST IMPORTANT OPPORTUNITIES OVER THE NEXT THREE YEARS



“I can’t think of another sector that splits opinion like nuclear.”

– Steven Brabec

“That is the nuclear industry’s problem in a nutshell,” Brabec says. “In terms of geopolitics – look at the bitter fights among EU member states over whether to include nuclear in the bloc’s Sustainable Finance Taxonomy. And with the energy transition – you have one side acknowledging nuclear as an essential source of zero carbon energy, and the others comparing nuclear to fossil fuels. I can’t think of another sector that splits opinion like this.”

Encouragingly for the sector, the energy transition is now in fact the most popular opportunity over the next three years. Last year, that spot belonged to ‘engineering techniques and technologies’, which this year drops to joint-second with changing ways of working, selected by 39 per cent of respondents. Respondents were also divided on whether or not the economic outlook is favourable to nuclear with 24 per cent viewing it as a challenge versus 28 per cent as a key opportunity.

23%

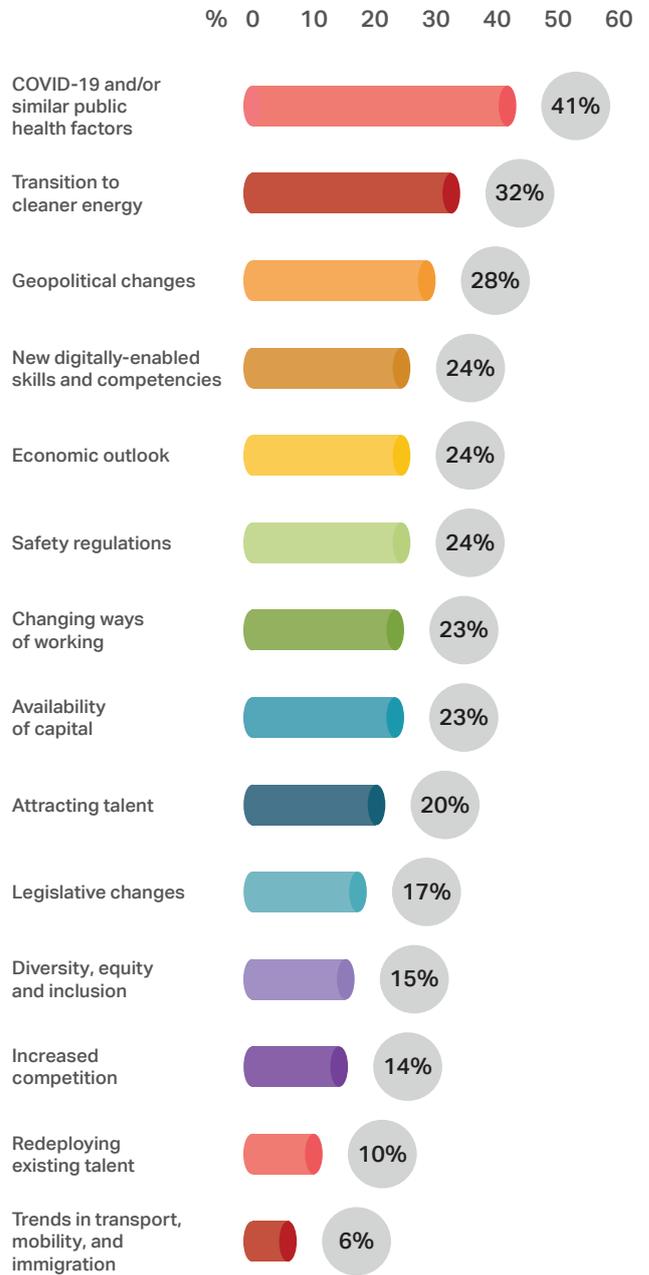
of respondents cite changing ways of working as a significant challenge.



“There’s a robust foundation of positivity around the energy transition here, and I’m encouraged to see new ways of working featuring so prominently.”

– Janette Marx

MOST IMPORTANT CHALLENGES OVER THE NEXT THREE YEARS



Marx views this optimistically: “There’s a robust foundation of positivity around the energy transition here, and I’m encouraged to see new ways of working featuring so prominently. This will be essential as nuclear makes its case to governments and workers in the coming years.”



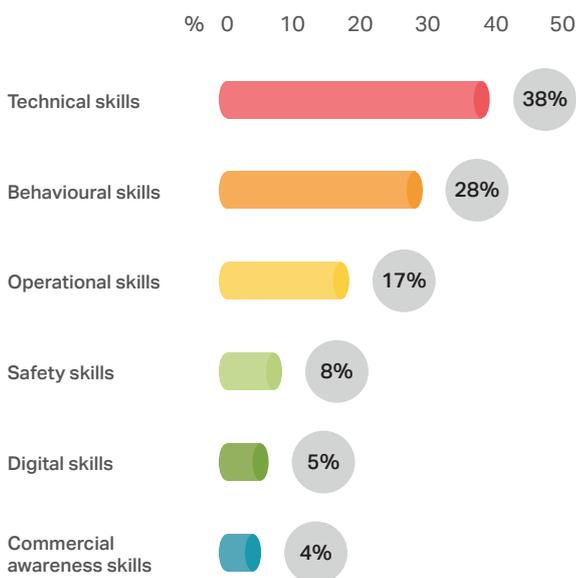
5. SKILLS

By a wide margin, technical skills are most valued when it comes to creating a flexible, future-proof workforce, though behavioural and operational skills also register highly. To get those technical skills into the business, hiring managers are most likely to scout other companies within nuclear (selected by 41 per cent), as is the case for operational skills (39 per cent). For behavioural skills, however, they are much more keen on upskilling and retraining existing employees (56 per cent).

“Fortunately for hiring managers, professionals are confident in their learning and development abilities – so hopefully leadership skills can be taught rather than imported.”

– Josh Young

MOST IMPORTANT SKILLS FOR A FUTURE-PROOF ENERGY WORKFORCE



Broadly, the technical skills in demand from hiring managers align with the transferable skills that professionals identify as their most important. Engineering and design capabilities rank highly for both groups, while hiring managers show an interest in attracting more skill in working with tools and technology, and professionals highlight their analytical skills.

69%

of hiring managers cite leadership as among the most important behavioural skills they look for when hiring talent from outside the sector.

Indicating the size of the task at hand if organisations are to add behavioural skills from training in-house, hiring managers look for leadership and the ability to manage others (69 per cent), teamwork skills (46 per cent), adaptability and critical thinking (both 38 per cent) as most important, in sharp contrast to professionals. This group also values teamwork (45 per cent) and adaptability (50 per cent), but view advanced communication skills as the most valuable (55 per cent) when only 36 per cent emphasise the leadership skills hiring managers are desperate for.

For Young, the discrepancies between groups are illuminating: “Why would hiring managers be so desperate for skills working with tools and tech while professionals seem unbothered? I think they’re thinking of different tools. Professionals may think: “of course I have that, that’s standard, I’ve been working this job for years;”, while hirers are looking for skill with *new* tools. The leadership gap is interesting – clearly there’s a deficit there – but fortunately for hiring managers, professionals are confident in their learning and development abilities – so hopefully that can be taught rather than imported.”



TECHNICAL SKILLS DESIRED BY HIRING MANAGERS VS. POSSESSED BY PROFESSIONALS

● Desired by hiring managers ● Possessed by professionals





6. ESG

ESG is clearly important to those in the nuclear sector. Eighty per cent cite it as a factor in joining or remaining with a given business – 55 per cent go so far as to say it is a major factor.

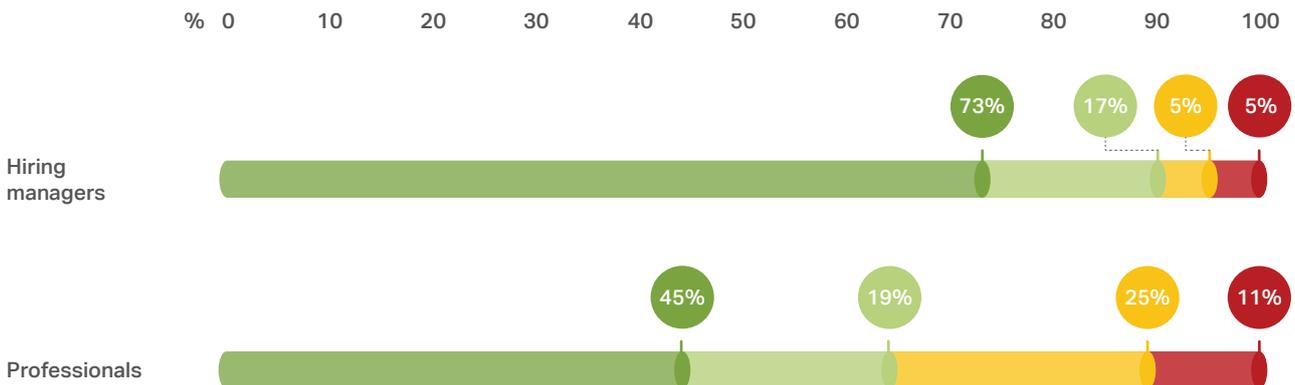
This is good news for nuclear, as most (55 per cent) respondents feel their organisation’s ESG policy is sufficiently ambitious and robust, while only 18 per cent say the contrary. Indeed, respondents award average scores of 3.44, 3.6 and 3.5 out of five stars for environmental, social and governance issues respectively.

80%

of respondents cite ESG policies as an important factor in determining whether they’ll remain with or resign from an organisation.

IS YOUR COMPANY’S ESG PLAN SUFFICIENTLY AMBITIOUS AND ROBUST?

● Yes ● No ● I don’t know ● My company doesn’t have an ESG plan



“Our sector is incredibly policy driven, and watched by the public, press and government – as it should be.”

– Steven Brabec

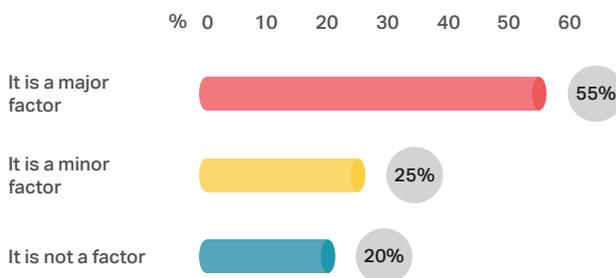
For Brabec, this stands to reason: “Our sector is incredibly policy driven, and watched by the public, press and government – as it should be. We’ve had no choice but to be stringent and diligent on these things and we’re proud of that record. The only question is whether we may have stifled a certain degree of innovation over the years in doing so. That’s something to guard against in future.”



“The nuclear sector is incredibly stable, but could also be seen as less dynamic than other energy sectors. That can be improved with fresh talent with new perspectives.”

– Janette Marx

DOES ESG ACTIVITY INFLUENCE YOUR LIKELIHOOD OF JOINING OR REMAINING WITH A BUSINESS?



Reflecting back to the sector’s challenges and opportunities, 32 per cent of respondents say the clean energy transition is the most important challenge, and 42 per cent say it is a vital opportunity. In both cases, respondents are highlighting its importance, and here we see that 53 per cent say their organisation has changed direction to adapt to the transition, 84 per cent of whom feel positive about the changes made.

Similarly, diversity, equity and inclusion is flagged as a major challenge by 15 per cent, and an opportunity by 20 per cent.

“As with the energy transition, the fact that diversity, equity and inclusion crops up as both a challenge and an opportunity shows its importance to the sector,” says Marx. “The nuclear sector is incredibly stable, but could also be seen as less dynamic than other energy sectors. That can be improved with fresh talent with new perspectives. There are some quick wins for better gender diversity by implementing more family friendly work policies, but companies will have to think hard about how to improve on a variety of DE&I measures.”

55%

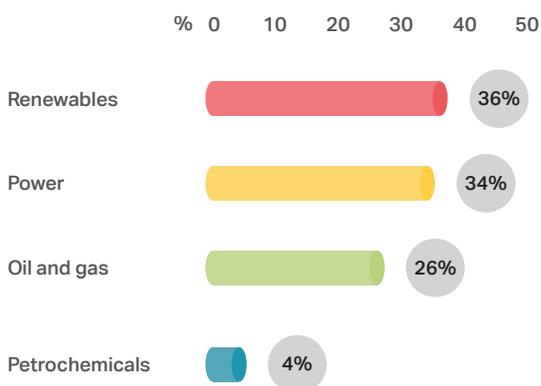
of respondents believe their organisation’s ESG policy is sufficiently robust.

7. ATTRACTING AND RETAINING TALENT

In the context of the wider energy sector, nuclear is a bedrock of stability. Three-quarters of respondents would consider moving to another energy sector in the next three years, but this is lower than in any other save for renewables.

For those open to moving, opportunities for career progression (selected by 29 per cent), technology (13 per cent) and ESG (13 per cent) are the main reasons why. This accords well with their preferred destination sectors, with renewables (36 per cent) and power (34 per cent) the most popular, against a combined 30 per cent open to moving to oil and gas and petrochemicals.

WHICH ENERGY SECTOR WOULD YOU BE MOST INTERESTED IN SWITCHING TO?



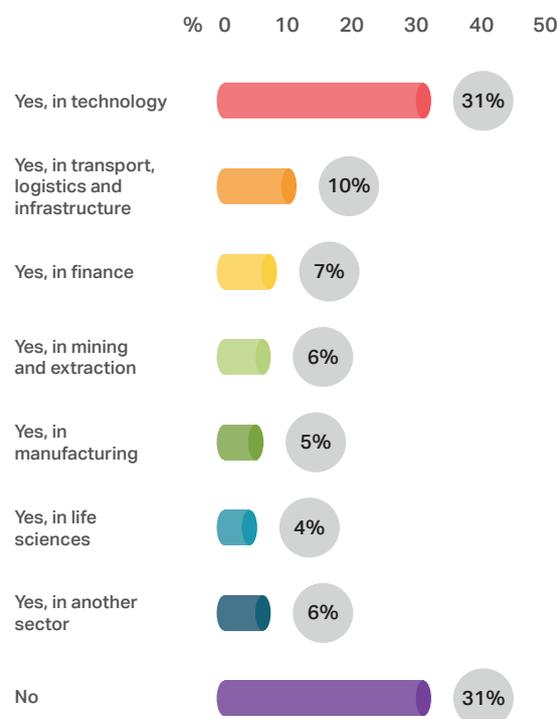
This is a familiar picture for Young: “Nuclear has always been a less mobile workforce, every single year. Largely, this is down to the fact that nuclear power plants draw their workforce from local communities, and invest in those communities for the long term, meaning people put down roots. But I think the data also shows that people in this sector are satisfied they’re in the right place to make a positive difference to the world.”

84%

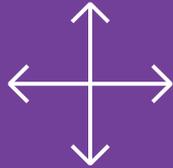
of respondents would consider a move to another company within the sector.

This is reinforced by the fact that only 69 per cent of respondents would consider switching out of energy altogether – the lowest of the energy sectors surveyed. In fact, in the last 18 months, 26 per cent of respondents have moved into nuclear from elsewhere in the broader energy sector. A third of these have done so from oil and gas, 28 per cent from power, and 15 per cent from renewables.

WOULD YOU CONSIDER MOVING TO A ROLE IN A NON-ENERGY SECTOR IN THE NEXT THREE YEARS?



However, Marx offers a word of warning for any organisations tempted to take this settled workforce as justification for any complacency: “We did find that 84 per cent of respondents would consider switching to another company within nuclear, driven by desire for better progression and rewards. So while it may be harder to leak nuclear professionals into different sectors altogether, no company can afford to let up on its retention efforts.”



Summary Nuclear

Nuclear has always been and remains a stalwart sector, less exposed to short-term upheaval than other parts of the energy sector, moving at its own pace. It would be a mistake though, to take the nuclear workforce for granted.

More than ever professionals are aware of the transferable skills they possess, and the opportunities open to them in the wider energy sector and beyond.





Summary

Climate change, COVID-19 and a global STEM skills crisis are permanently altering the energy landscape. New international climate agreements and the lifting of lockdowns spurred widespread decarbonisation and a record year for renewable energy. The tough timeline to decarbonisation agreed in the Glasgow Climate Pact along with growing demand for energy from developing nations will require radical industry innovation and an influx of talent, with a skills shortfall now widely cited as one of the biggest barriers to achieving clean energy.

Meanwhile, the pandemic's aftershock continues to be felt as economies recover. Rapidly rebounding post-pandemic economies are driving surging energy demand and soaring energy prices. Lockdowns produced a mass skills exodus, which has exacerbated skills shortages as the industry bounces back. And COVID-19 continues to cast a long shadow of uncertainty over the recovery with the spectre of new mutations and further lockdowns. The pandemic also cemented a trend towards remote working which accelerated the technological transformation of the industry and the rise of Energy 4.0.

This year's GETI report maps the way in which recent ruptures have realigned the energy industry and led to a radical reordering of workforce values and priorities.

Industry-wide technological transformation and a global energy convergence has created a parallel convergence of industry skills and increasingly porous borders between regions and sectors. This has spawned a workforce equipped with more transferrable skills and empowered to seek more cross-sector career transitions and international transfers.

A cloud of uncertainty over a continuing cycle of COVID-19 restrictions is hampering travel options and salary optimism; but, with an industry-wide skills shortage and rising salaries across all verticals, it is increasingly an employee's market. This widens the war for talent but also opens new talent sources to recruiters. Employers could turn this trend to their advantage to attract new recruits from outside industries and help keep existing employees by offering more internal and international transfer opportunities.

The pandemic has reshaped the values and motivations of this newly empowered workforce in many ways. Lockdowns raised awareness of work/life balance and the environment as millions of workers spent more time with families and experienced cleaner air and bluer skies. As a result, ESG concerns feature heavily in employee decisions over whether to leave or stay and where to apply, while family and lifestyle increasingly influence relocation destinations.

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Career progression and innovation are also prime drivers for a career change, reflecting the rise of a 'millennial' generation that choose careers based on self-actualisation, tech innovation and alignment with personal values. This indicates that the winners in the new talent race will be those that embrace and promote sustainable innovation, self-advancement, and flexible, family-friendly working.

The energy transition has spurred a technological transformation that creates new risks and major opportunities. Advances in engineering techniques and technologies and clean energy frequently top the list of greatest opportunities for the sector. Yet, this also requires a major influx of tools, technical talent alongside in-house training to ensure skills keep pace with a changing energy landscape.

The skills shortage is driving employers to develop in-house resources through improved learning and development and even automation. It has also spurred a recent hiring spree with one-in-four respondents being recruited from outside their current sector in the last 18 months. Yet close skills synergies between energy sectors and a more free-floating workforce no longer anchored in one sector offers firms an opportunity to diversify and de-risk their talent supply.

This is the story of an industry and talent in major transition. A globally mobile workforce with skills increasingly in demand across the industry and around the world means that the balance of power has shifted towards professionals. Transforming the threat of a potential skills exodus into an opportunity for a talent influx will mean transforming employer brands in the image of a new generation of worker. Embracing clean energy, technology, flexible work and talent development are no longer optional but fundamental to securing the future skills base on which the industry rests.

