



GETI
Global Energy Talent Index



The Global Energy
Talent Index Report

2018

Welcome

Everyone at Airswift and Energy Jobline is very proud of the reception to the inaugural Global Energy Talent Index (GETI) and excited to build on that success in the 2018 edition. This time we go even further, with an in-depth look at one of the key trends shaping the energy workforce: digitalisation.

Digitalisation is revitalising the energy industry. The advent of next-generation technologies is driving more headline projects, creating new roles at a rapid rate and optimising how energy companies operate.

Just as importantly, it is reshaping how workers do their jobs, opening the door to hybrid opportunities that marry technology with operational and technical skills and promote more vibrant working environments.

As this report reveals, digitalisation is instilling optimism into the attitudes, ambitions and overall contentment of the energy workforce. Today's talent pool is energised, hopeful and keen to be a part of the march towards a digital future:

- People are happier – For the most part, respondents report that the quality and contentment of their working lives have increased. Better opportunities for progression, alongside digitally-enabled

trends, such as flexible working, have played a large part.

- Scepticism is waning – The vast majority of respondents see technology as an enabler, not a hindrance. Excitement abounds around the potential for automation to enhance productivity and efficiency.
- More focus on retention – Companies are doing more to ensure that their existing workers grow into the new roles created through digitalisation. New training and development programmes are essential.
- Pay is on the rise – Compensation is growing. Where sectors are behind on digitalisation, pay is being used to help bridge gaps.

Of course, each sector is in a different place on its journey towards digitalisation. This report reveals how the individual sectors can take advantage of where they're at to enhance their recruitment and retention efforts.

For instance, where culture is important, flexible working can be an essential tool. Where pay is critical, companies can utilise automation to reduce costs and potentially free up money. Ultimately, digitalisation can level the playing field for the sectors that have

had more challenges in attracting potential workers.

Of course, this transformation won't come without some challenges. New jobs are outpacing the availability of talent. As technology becomes more complex, finding people with the adequate skills is increasingly difficult.

Here, digitalisation can help the industry address the hurdles brought about by its burgeoning success:

- Showcasing technological prowess – Some sectors are perceived as outdated when it comes to technology. In reality, cutting-edge projects are taking place everywhere. These projects must be at the centre of any efforts to recast a sector's image.
- Encouraging sector mobility – Hiring managers will need to get creative in understanding how skills from another sector can translate over. Tying these skills to newer, more exciting roles can advance these efforts.
- Appealing to younger talent – Companies will need to lean more upon graduate and university outreach programmes. Showcasing the innovative projects taking

place – and the opportunities available – can promote energy as a viable and exciting career path.

We hope readers find that the 2018 GETI report illuminates their path ahead to better understanding how digitalisation and other developments are reshaping the nature of the workforce. And that it helps them leverage trends such as global and sector mobility, compensation and culture to better attract and retain talent in the year ahead.

Finally, we would like to thank our partners and the 21,000 professionals and hiring managers whose insights have been invaluable and look forward to continue bringing you many more GETI reports in the years to come.



*Janette Marx,
Chief Operating Officer
at Airswift*



*Hannah Peet,
Managing Director at
Energy Jobline*

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Methodology



GETI 2018 is the second edition of the GETI series, a comprehensive report released to the global energy industry on an annual basis. This year's survey built on last year's success, with 20,826 respondents, from 163 countries and 151 nationalities, completing the 38-question survey.

The survey was open for six weeks and, with the help of the project's partners (see Partner Directory), GETI achieved its response target by October 2017, when the survey was closed.

Airswift and Energy Jobline subsequently studied the data to pull out the key insights detailed in the report. In addition to the survey responses they also analysed key data from 64,000 job postings advertised on Energy Jobline in 2017 alongside hiring data from contract and permanent placements made at Airswift over the same period.

For ease of reference, salary and rates data has been averaged across several countries within one region, but more specific salary information can be provided upon request.

DEMYSTIFYING DIGITALISATION

More than a salary survey, GETI 2017 provided valuable insight into subjects such as global mobility, sector mobility and recruitment – knowledge that the energy industry had long been calling for.

This year's iteration goes even further, adding a specific focus on the impact of digitalisation and automation upon the oil and gas, petrochemicals, power, renewables and nuclear sectors. These trends are already changing the face of work for staff and contractors alike – and the transformation is set to accelerate. GETI seeks to help readers understand the shape of these changes and help hiring managers and professionals to prepare for success in a more digital future.

Airswift and Energy Jobline hope this survey proves useful to all who read it and invite anybody who requires further detail, analysis or insight to get in touch at enquiries@getireport.com.

Airswift

Airswift is an international workforce solutions provider within the energy, process and infrastructure industries. With more than 6,000 contractors and 700 employees in over 60 offices worldwide, our talent pool and geographical reach are unmatched in the industry.

For over 35 years, Airswift has been passionately transforming lives through the workforce solutions we provide, including talent acquisition, global 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



Energy Jobline

Energy Jobline is the leading specialist job board for energy globally, hosting a database of over 1.5 million professionals, paired with a client base of over 400 energy employers and agencies, advertising over 16,000 energy jobs. Energy Jobline advertises exciting vacancies in the oil and gas, renewables, power, nuclear and petrochemicals sectors.

Energy Jobline is the pioneer of energy recruitment, hosting a 29 per cent exclusive database. Our job board is a significant value-add to any energy employer or employee on a global spectrum.

The subsectors we cover range from technical engineering to support/procurement. We have an engaged audience who use Energy Jobline for not only their job search, but also the latest energy news.

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



Partner Directory



Energy Voice is a global, digital news platform for the oil and gas, renewables and wider energy sectors. Based out of Europe's energy capital, Aberdeen, Scotland, Energy Voice is the authoritative voice on all North Sea developments and breakthroughs.

The platform has a rich global scope and is read in more than 100 countries. It reports breaking news in all of the energy industry's key hubs, including Houston, Norway, Brazil, Russia, China, India and Saudi Arabia.



The Nuclear Institute is the professional membership body for the nuclear industry in the UK.

We work with individuals and companies to facilitate professional development and accreditation, nurture scientific expertise, share knowledge, and provide a place for the nuclear community to interact.

Join us and get involved in shaping the future.





GETI
Global Energy Talent Index



energyjobline

Oil and Gas



Contents: Oil and Gas



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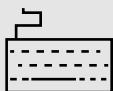
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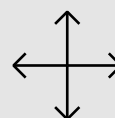
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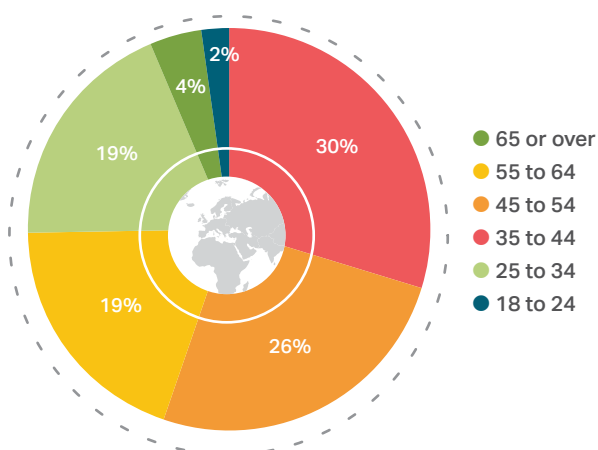


Oil and Gas

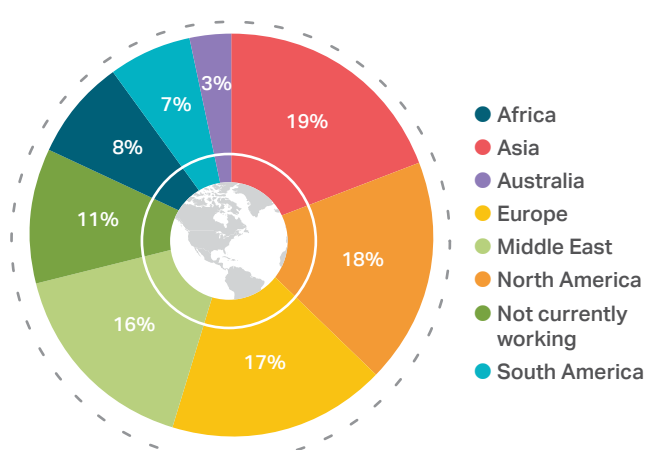
Oil and gas businesses have been through a difficult few years. But as the oil price swings upwards, a new challenge awaits: embracing digital trends to attract and retain talent with the new technological skills required to fulfil its potential.

1. DEMOGRAPHICS

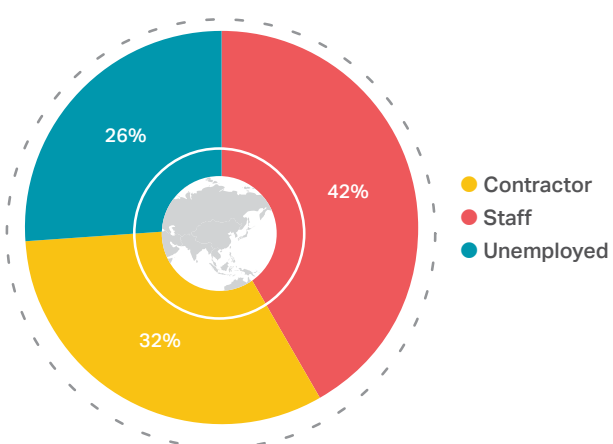
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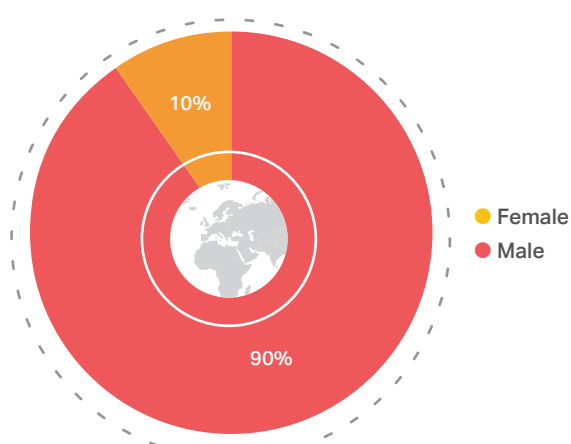
REGION



CONTRACT VS. PERMANENT



GENDER



2. SALARIES

Despite a few challenging years for the oil and gas sector, salaries continue to be the highest in the energy industry. As oil markets recover, the prospects for salary growth are looking more positive.

Pay increases were modest over the last year as most companies focused on stability. Twenty-nine per cent of workers said that their pay and benefits had increased. Nearly half (45 per cent) reported no change.

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

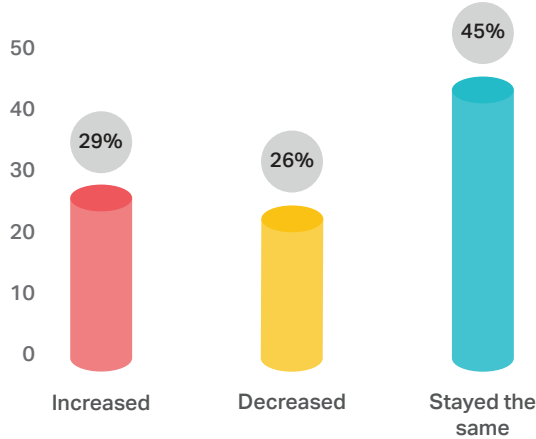
	Africa	Asia	Australasia	Europe	Middle East	North America
Accountant	59,775	45,647	73,343	52,942	30,578	73,331
Administrator	29,812	30,586	36,057	32,831	15,500	37,316
Chemical Engineer	87,380	61,428	129,836	65,096	70,932	115,367
Civil Engineer	84,045	52,404	129,412	59,368	61,682	114,448
Commissioning Engineer	101,061	69,624	139,921	77,492	66,577	99,810
Construction Engineer	89,202	60,553	128,598	58,364	62,713	97,088
Construction Manager	108,279	73,339	159,085	78,889	132,993	120,389
Contracts Manager	99,513	62,472	137,497	74,344	136,268	93,739
Drilling Engineer	118,591	96,254	179,434	97,966	118,987	127,236
Drilling Supervisor	145,919	129,636	180,465	128,904	135,986	144,372
Electrical Engineer	85,592	75,149	128,187	77,884	81,003	114,074
Finance Manager	96,420	55,500	152,486	72,781	95,614	115,520
Geophysicist	100,545	73,544	150,560	92,811	117,236	126,215
HSE Manager	112,404	74,017	144,372	80,196	108,784	124,981
Inspection Engineer	75,279	61,177	85,933	65,873	69,000	87,495
Instrumentation Engineer	89,717	68,216	129,600	66,268	61,380	113,568
Maintenance Engineer	82,498	69,225	85,927	75,000	77,368	94,399
Mechanical Engineer	82,000	73,000	128,892	69,618	79,600	123,399
Process Engineer	90,748	69,412	133,937	73,451	70,790	124,756
Production Engineer	80,000	63,030	129,302	61,875	67,545	124,877
Project Engineer	93,842	68,802	131,362	65,127	69,000	124,045
Project Manager	127,873	83,000	177,062	86,735	136,315	154,684
QA/QC Inspector	77,343	69,649	101,550	75,799	79,045	108,279
Reservoir Engineer	116,529	104,184	129,152	104,154	127,466	134,059
Welder	69,092	38,225	81,240	43,570	17,032	82,498



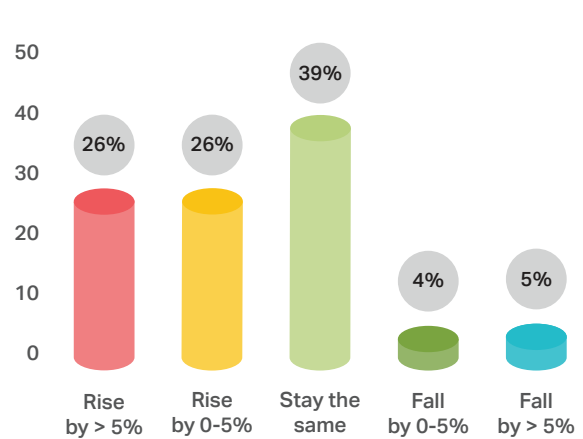
CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	Europe	Middle East	North America
Accountant	243	266	275	330	270	384
Administrator	80	120	130	152	95	229
Chemical Engineer	390	464	470	530	450	500
Civil Engineer	395	430	426	525	445	490
Commissioning Engineer	497	700	605	620	548	665
Construction Engineer	420	500	483	575	475	585
Construction Manager	598	850	630	760	645	886
Contracts Manager	468	630	565	715	630	740
Drilling Engineer	829	915	890	895	907	1,009
Drilling Supervisor	996	1,250	1,350	1,100	1285	1,360
Electrical Engineer	525	578	565	590	570	635
Finance Manager	493	520	550	566	529	600
Geophysicist	635	590	643	835	700	733
HSE Manager	495	523	517	640	570	594
Inspection Engineer	380	455	460	530	470	510
Instrumentation Engineer	540	565	589	625	622	693
Maintenance Engineer	520	560	530	550	527	600
Mechanical Engineer	486	485	515	600	550	650
Process Engineer	525	600	565	625	590	698
Production Engineer	339	453	432	575	405	489
Project Engineer	593	644	620	710	629	696
Project Manager	675	850	720	805	700	776
QA/QC Inspector	498	535	545	575	580	569

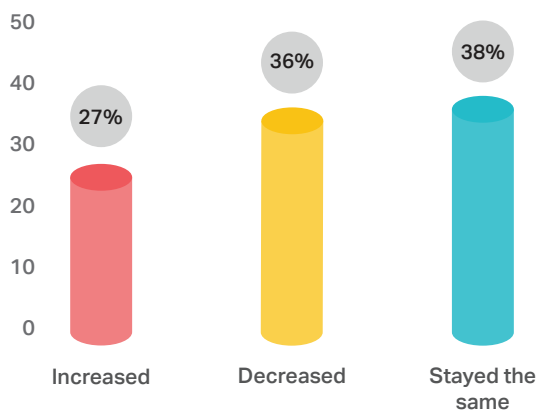
PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS (professionals)



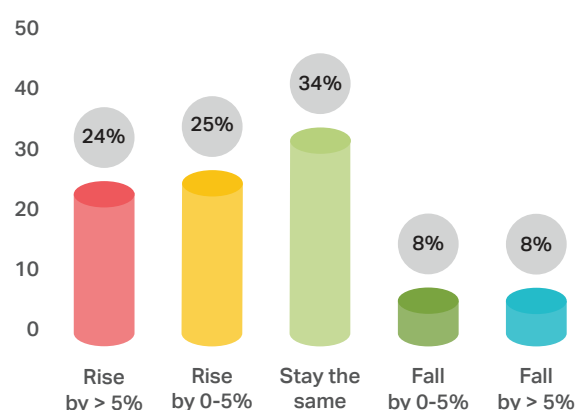
PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS (professionals)



PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS (hiring managers)



PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS (hiring managers)



Professionals are looking towards bigger and better things in 2018. Just over half expect their pay and benefits to rise – a quarter believe these increases will be upwards of five per cent. Hiring managers share the same optimism.

Salary growth is welcomed by professionals and hiring managers alike. Pay stagnation is fast becoming a point of irritation among workers.

“Challenges in the market over recent years have led a number of professionals to seek the perceived security of full-time roles – sometimes even at the cost of lower salaries than they might otherwise expect,” said Hannah Peet, Managing Director at Energy Jobline. “But now that the market is stabilising, oil and gas companies may wish to put a greater emphasis on pay to ensure they retain their talent.”

Along with the nascent recovery, a persistent skills shortage should keep salaries buoyant for quite some time. This would bode well for attracting and retaining younger talent – 68 per cent of respondents under the age of 35 are anticipating a pay increase in 2018, a far higher rate than the average.

“Now that the market is stabilising, oil and gas companies may wish to put a greater emphasis on pay to ensure they retain their talent.” – Hannah Peet



3. HAPPINESS

Maintaining contentment is challenging in the midst of turmoil, which the oil and gas sector has experienced firsthand.

The level of happiness among workers has decreased in the last three years. Forty-five per cent reported being less content overall, 12 per cent more than the 33 per cent who claim to have got happier.

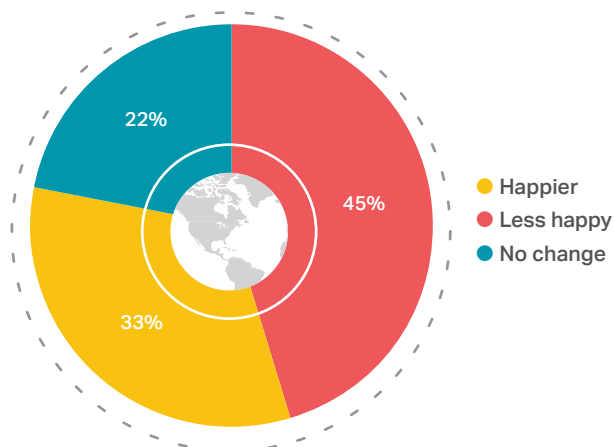
Hiring managers seemed to have a bleaker view of the situation, with 72 per cent believing that workers were not as happy.

These figures come as little surprise, considering the relative lack of job security in recent years. Instability drove various changes across the sector, including 34 per cent of contractors seeking permanent staff roles.

Yet, these numbers belie the optimism that is budding as the sector returns to health. Let's not forget that a third of workers surveyed said they were happier than they were three years ago. And despite their desire for job security, contractors are almost as happy as permanent staff.

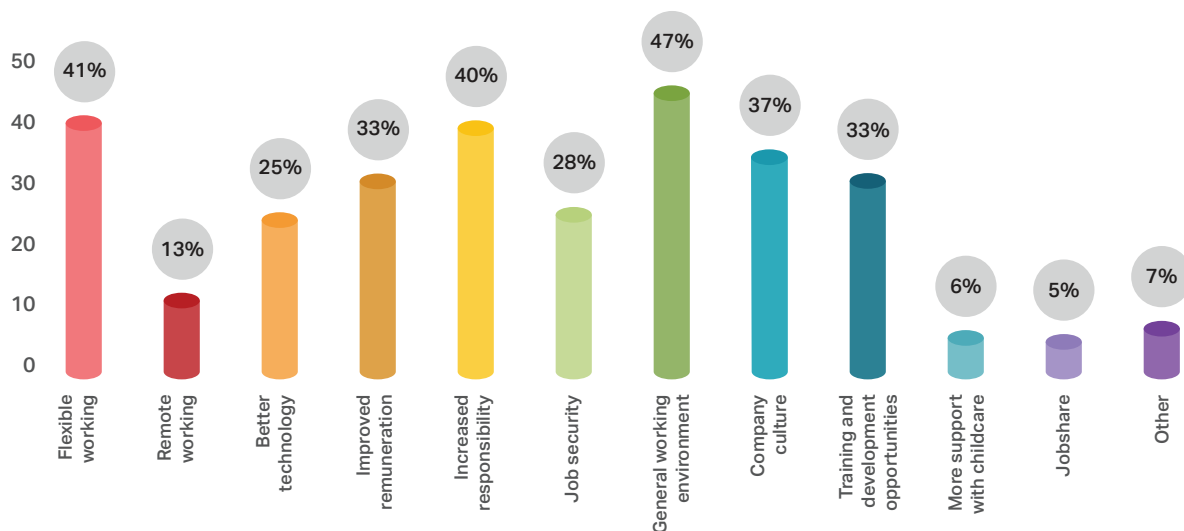
What exactly is making these workers happier? Greater responsibility, working environment and opportunities for flexible working factored highly, as did improved pay, nodding to the salary trends detailed earlier.

ARE YOU HAPPIER OR LESS HAPPY? (professionals)



As Janette Marx, Chief Operating Officer at Airswift, notes: "Flexible working and new challenges are two aspects of the vibrant working environments that oil and gas companies will need to provide to elevate happiness in the future. Digitalisation will be a major enabler."

WHY ARE YOU HAPPIER? (professionals)



4. DIGITALISATION

As digitalisation takes hold in the oil and gas sector, it could prove to be an added source of happiness – both for professionals and hiring managers.

For professionals, automation and mobile accessibility could create more opportunity for remote and flexible working. Flexibility is a key source of happiness and universally appeals to workers of all ages.

It may also prove instrumental in helping to bridge the gender gap – 46 per cent of women said that flexible working would ultimately help the sector attract better talent. For both men and women with children, the ability to work around family schedules is especially appealing.

“Flexible working is essential for enabling an inclusive, diverse working environment,” said Peet.

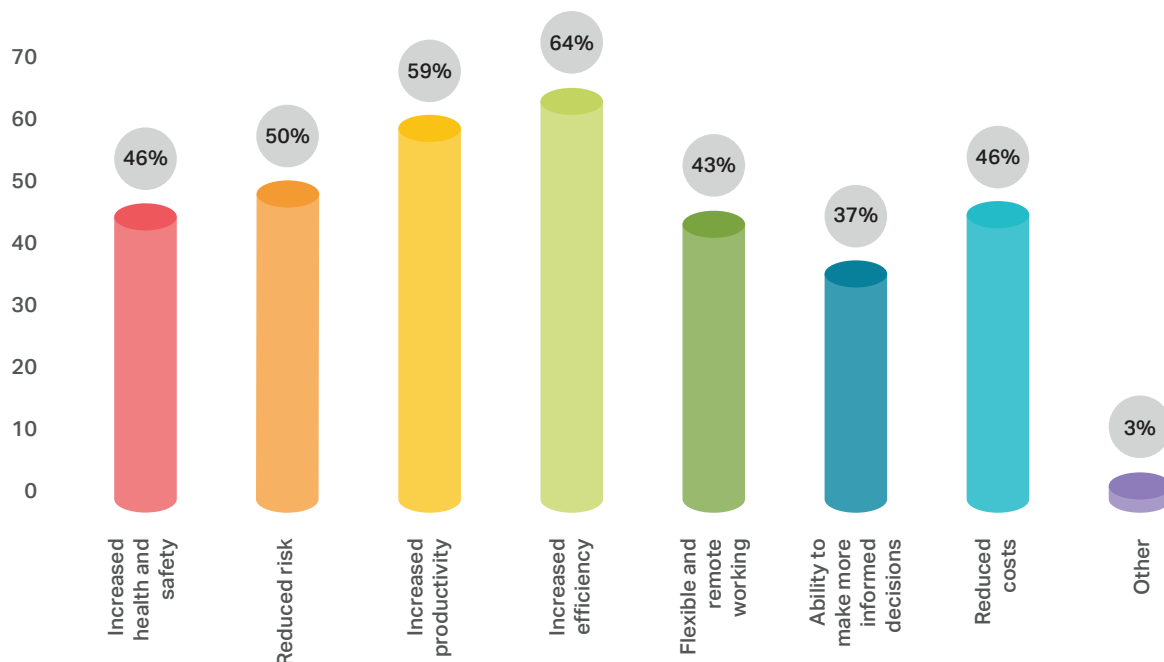
“With the gender and skills gap the industry is facing, companies are going to have to promote a culture that is more supportive of family life.”

For hiring managers and companies, automation and the cutting-edge technologies behind digitalisation – big data, AI, machine learning – can provide new levels of operational insight to promote performance and enhance efficiency.

“Automation could reduce hiring pressure just as the candidate pool to fill those roles diminishes,” said Marx.

People on both sides of the hiring equation seem to agree on the power of technology to improve operations. Overall, 59 and 64 per cent of workers see increased productivity and increased efficiency, respectively, as the leading benefits of digitalisation.

WHICH OF THESE BENEFITS DO AUTOMATION AND DIGITALISATION BRING TO YOUR SECTOR? (professionals)

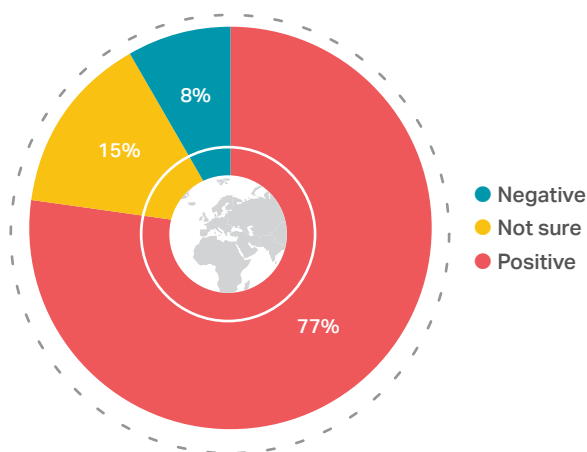




“Automation is the way forward. We’re continuing to operate at a much lower oil price and efficiencies have to come through,” said Marx. “The industry has to do things differently, rely more on technologies and be open to transformation.”

Considering the potential, it’s no surprise that the reception to digitalisation is very warm: 77 per cent of workers see digitalisation as a positive development for the industry.

DO YOU THINK AUTOMATION AND DIGITALISATION ARE POSITIVE DEVELOPMENTS FOR THE SECTOR?



With the downturn still fresh in many minds, some worry that digitalisation will eliminate jobs. These fears seem to be largely unfounded, however. Rather than replace jobs, oil and gas companies are leaning on technology to make existing roles – and the people in them – more effective.

“Digitalisation is not necessarily displacing traditional roles – it’s opening up a bigger world,” said Marx.

“Automation is the way forward. We’re continuing to operate at a much lower oil price and efficiencies have to come through. The industry has to do things differently, rely more on technologies and be open to transformation.” – Janette Marx

5. GLOBAL MOBILITY

Oil and gas workers remain exceptionally keen to consider international opportunities. Eighty-seven per cent of workers surveyed said they would be open to relocating to another region, with Asia proving most popular at 29 per cent of responses, closely followed by North America (24 per cent) and Europe (23 per cent).

Even as the sector recovers, job security remains a major driver of mobility. “More than any other sector, oil and gas workers are easily willing and able to move wherever good opportunities lie,” said Marx.

This bodes well for oil and gas companies. With more complex projects on the horizon and skilled talent at a premium, attracting individuals with diverse experience is essential.

“Individuals with experience in various geographies are invaluable. They will have decades of technical experience in different terrains – and that knowledge is virtually impossible to replace,” said Peet.

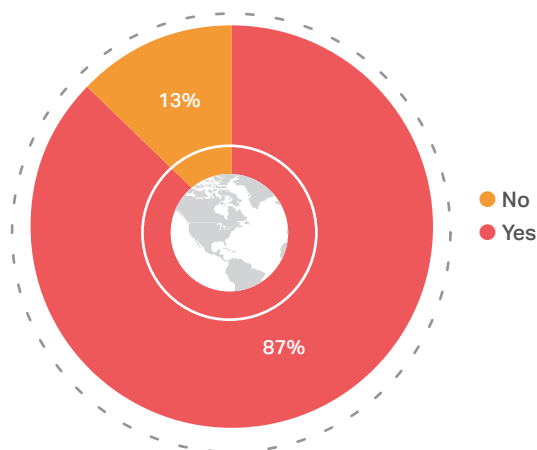
Besides job security, individuals are intrigued by opportunities to work on exciting projects, expand their skills and progress in their career. Many companies, however, aren’t as quick to provide those opportunities – just 52 per cent of workers said that their current employer promoted cross-regional transfers.

“We have a highly mobile workforce that increasingly wants to find new challenges around the world. Companies that can’t offer these international opportunities may lose out on top talent,” said Peet.

At the same time, many countries are now enforcing local content regulations.

But no region can afford to operate without any international talent. Experienced expat workers can play an enormous role in the upskilling of local workforces. For this reason, demand for highly-skilled expats should remain strong.

WOULD YOU BE WILLING TO RELOCATE TO ANOTHER REGION FOR WORK?



“We have a highly mobile workforce that increasingly wants to find new challenges around the world. Companies that can’t offer these international opportunities may lose out on top talent.” – Hannah Peet



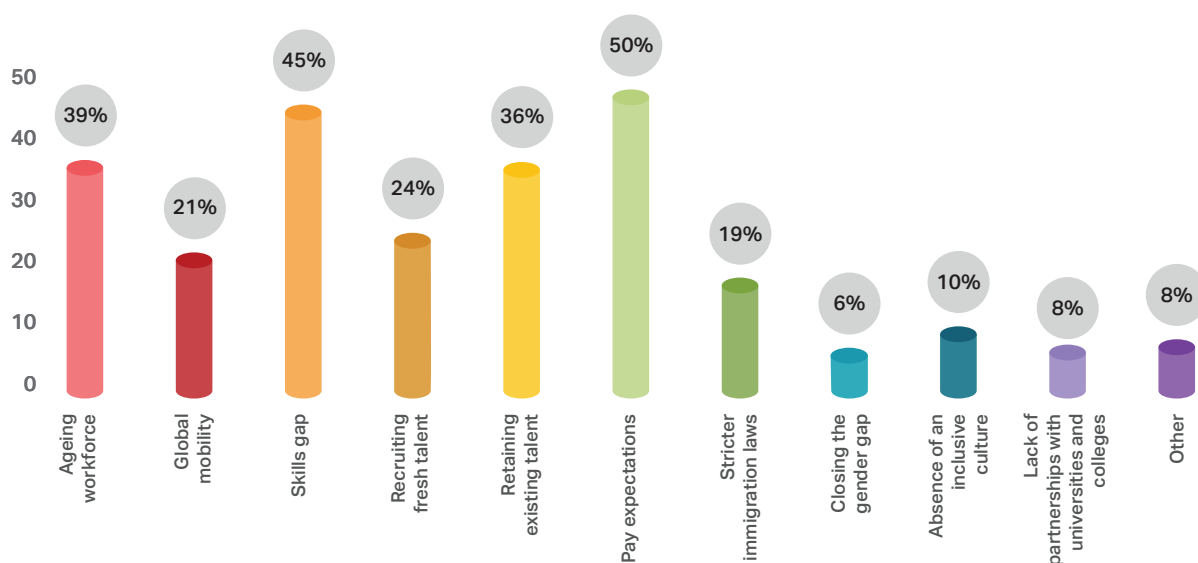
6. SKILLS

ADDRESSING CHALLENGES, SEIZING OPPORTUNITIES

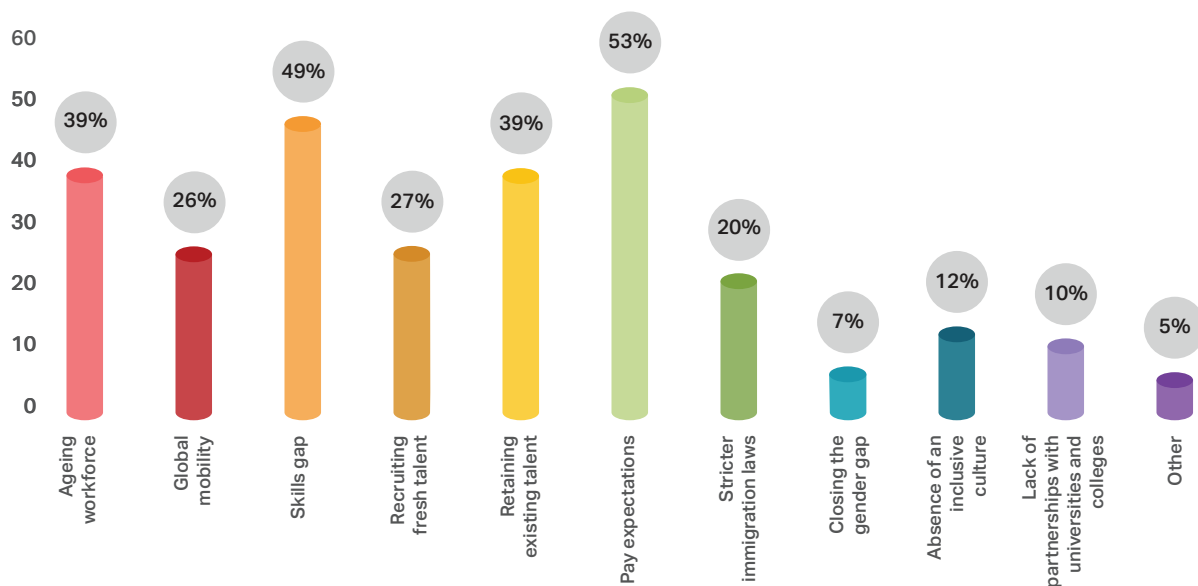
The shortage of skilled talent is a persistent challenge that the oil and gas sector is tackling in numerous ways. Technology could be part of the answer.

But in turning to technology to close this gap, oil and gas companies will need to attract a wider range of skills.

WHAT ARE THE BIGGEST WORKFORCE CHALLENGES FACING THE SECTOR? (professionals)



WHAT ARE THE BIGGEST WORKFORCE CHALLENGES FACING THE SECTOR? (hiring managers)





One of the drivers behind this gap also ranks highly on the list of challenges – an ageing workforce. Balancing the equation with younger individuals is essential.

Digitalisation can help bridge the gap, both by achieving efficiencies and creating more tech-focused opportunities. The use of cutting-edge technologies associated with machine learning and AI will create the need for skills that aren't so easily found in the energy sector today.

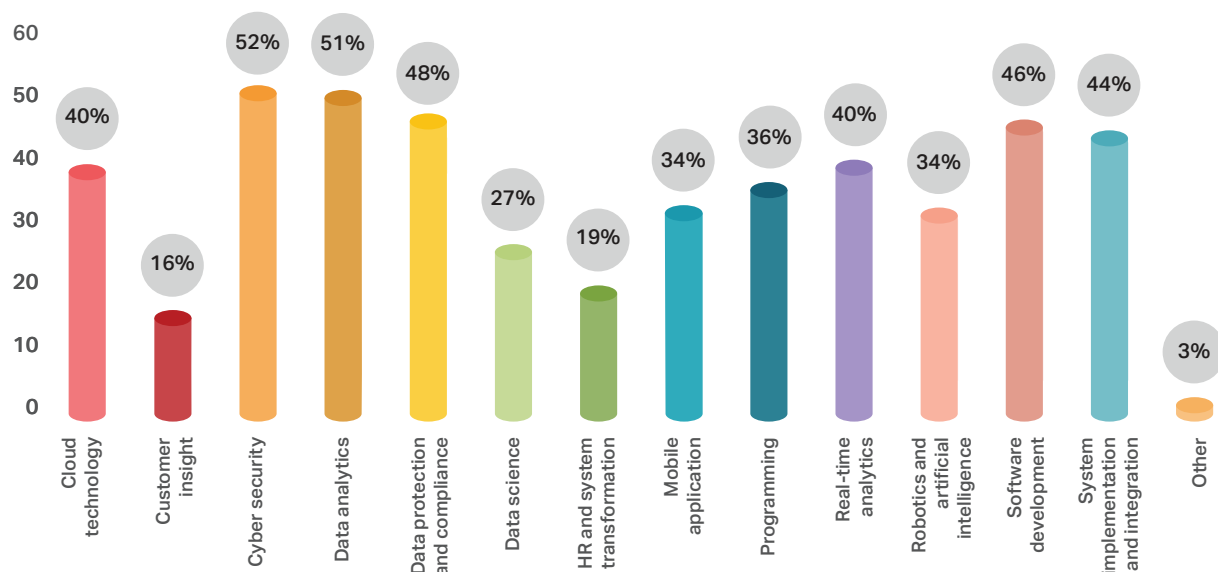
"Oil and gas firms are beginning to digitalise, but this means bringing new skills into the fold. While some of these can be acquired through the retraining of existing workers, full digitalisation requires specialist tech talent," said Marx.

Hiring managers reported that data analytics, software development, and robotics/AI will be among the types of expertise most in demand as digitalisation takes hold. Oil and gas companies are already looking for these skills in new areas, by connecting with and having a presence in top tech universities, technical schools and training hubs.

"The renewables sector does a good job of attracting talent from other industries. Oil and gas can easily do the same. It's about understanding how interchangeable skills and backgrounds can be. Not being so fixed or rigid with how we label experience can open new opportunities," said Peet.

"Oil and gas firms are beginning to digitalise, but this means bringing new skills into the fold. While some of these can be acquired through the retraining of existing workers, full digitalisation requires specialist tech talent." – Hannah Peet

WHICH AREAS OF EXPERTISE WILL BE IN GREATER DEMAND AS A RESULT OF AUTOMATION? (hiring managers)





7. ATTRACTING TALENT

OPPORTUNITY, TRAINING AND A GOOD ENVIRONMENT

The sector has a two-fold challenge in attracting people for the roles brought on by digitalisation: recruiting from the technology sector and appealing to younger individuals.

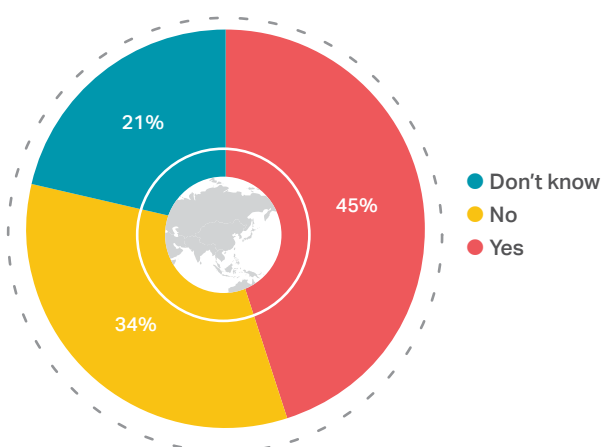
“These days, graduates tend to be more excited by renewables, seeing it as the sector where exciting things are happening technologically. To them, oil and gas can feel a bit outdated,” said Peet.

In reality, digitalisation is picking up in oil and gas. Many companies are undertaking more cutting-edge technological projects. Others may need to accelerate the pace.

“Some oil and gas firms are digitalising already. But they all need to beware of dragging their feet in embracing digitally-enabled working practices, such as flexible working, that may play a role in attracting specialist tech talent in the coming years,” said Marx.

Forty-five per cent of professionals think the sector does a good job of marketing itself to potential candidates. The figure may seem low, but is close to the energy industry average. Interestingly, those aged 35 and under were slightly more likely to believe the industry was doing a good job.

DO YOU THINK YOUR SECTOR DOES A GOOD JOB OF MARKETING ITSELF TO POTENTIAL CANDIDATES? (professionals)



As noted earlier, digitalisation enables opportunities for flexible and remote working – both increasingly major draws for potential candidates. It also addresses another area of attraction – the opportunity to work with cutting-edge technology. When surveyed, 41 per cent of hiring managers said this was essential to lure the best talent.

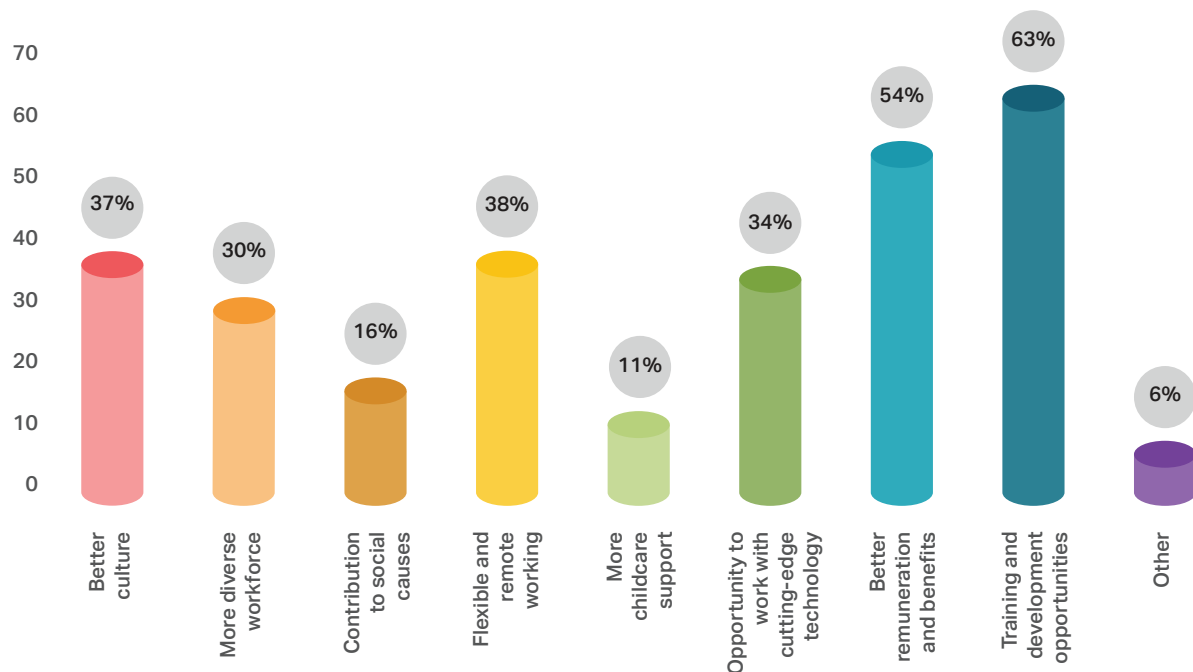
Interestingly, women were about ten per cent more likely than men to say that flexible and remote working were critical to attract talent, whereas the inverse was true for pay.

Training and development opportunities topped the list resoundingly, and for good reason. Whether it be accommodating new tech-based roles or mobilising talent from other sectors, companies will have to lean more on training to get workers up to speed.

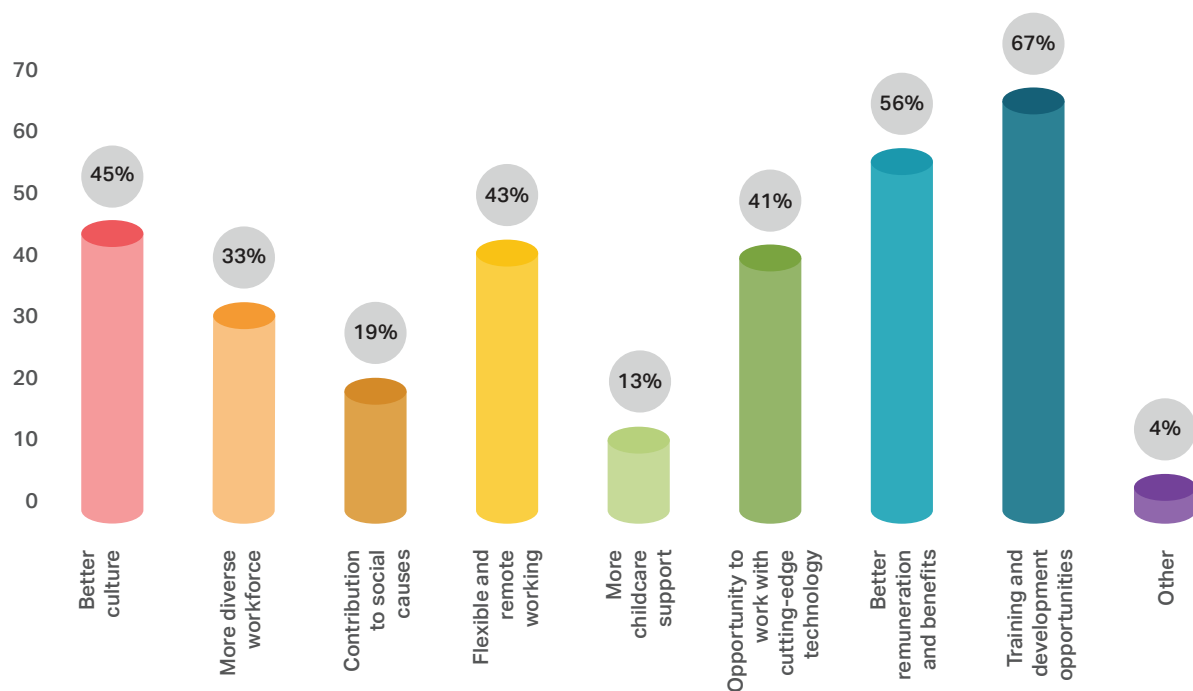
Marx says: “More than half of oil and gas workers are willing to move across sectors – but they will want assurance that training is accessible to help them in areas where they may be less familiar.”

“Some oil and gas firms are digitalising rapidly already. But they all need to beware of dragging their feet in embracing digitally-enabled working practices, such as flexible working, that may play a role in attracting specialist tech talent in the coming years.” – Janette Marx

WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (professionals)



WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (hiring managers)





8. RETAINING TALENT

OPENING THE DOOR TO NEW CHALLENGES

If training is essential to attracting new talent, then it is absolutely critical to helping current workers seize the opportunities created by digitalisation. Oil and gas companies are rising to the challenge.

“Companies have a lot of untapped potential in their current workforce. It’s important that they set up a conducive learning environment to help workers along the automation and digitalisation journey,” said Peet.

Some companies are proactively offering re-training to employees for tech roles, such as programming or data analysis. External and technical skills-training schools are also opening to help professionals make the transition.

By doing this, oil and gas companies are feeding into one of the top factors that keeps professionals in place. When asked why they would consider changing sectors, workers cited the search for “more unique and diverse opportunities” as a leading reason.

Marx says: “Oil and gas companies should embrace the interest of their current employees in branching out by providing new challenges and empowering them to control their career path. These are two ways companies can stop individuals from looking elsewhere, which are fed by digitalisation.”

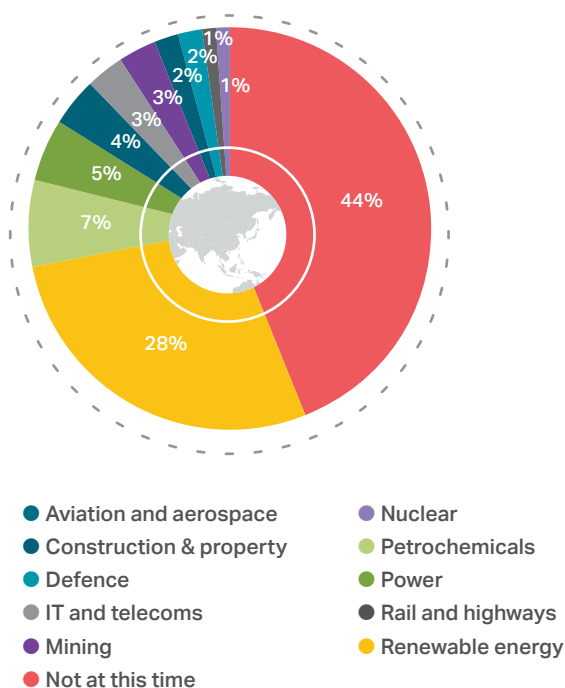
The timing couldn’t be better for companies. Fifty-six per cent of oil and gas professionals are considering a jump to another sector. The most popular sector by a wide margin? Renewables.

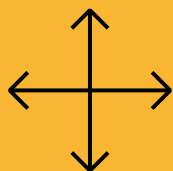
“Every sector is in danger of losing talent to renewables. While down from last year’s 67 per cent, the number of oil and gas professionals applying for roles in renewables remains significant,” said Peet.

The curiosity in renewables isn’t just limited to younger individuals. Workers between the ages of 35 and 54 were slightly more likely than their younger peers to consider a role in the up-and-coming sector.

“Companies have a lot of untapped potential in their current workforce. It’s important that they set up a conducive learning environment to help workers along the automation and digitalisation journey.” – Hannah Peet

WOULD YOU CONSIDER SWITCHING TO A ROLE IN ANOTHER SECTOR OVER THE NEXT THREE YEARS? (professionals)





Summary Oil and Gas

Oil and gas companies face an uphill battle in garnering the same reputation for cutting-edge technology enjoyed by renewables. And while renewables businesses have an advantage in that the sector is viewed as more secure, oil and gas offers the most lucrative remuneration across all energy sectors. Coupling favourable pay packages with more of the perks of digitalisation may enhance the sector's appeal.

As Marx notes: "This desire to consider new jobs in renewables reflects the same sector mobility that could prove a huge opportunity for oil and gas businesses. It all comes back to happiness – can oil and gas do more to ensure the happiness of their employees? Of course they can. And by embracing digitalisation they can set themselves up to retain talent and transfer knowledge to the next generation."



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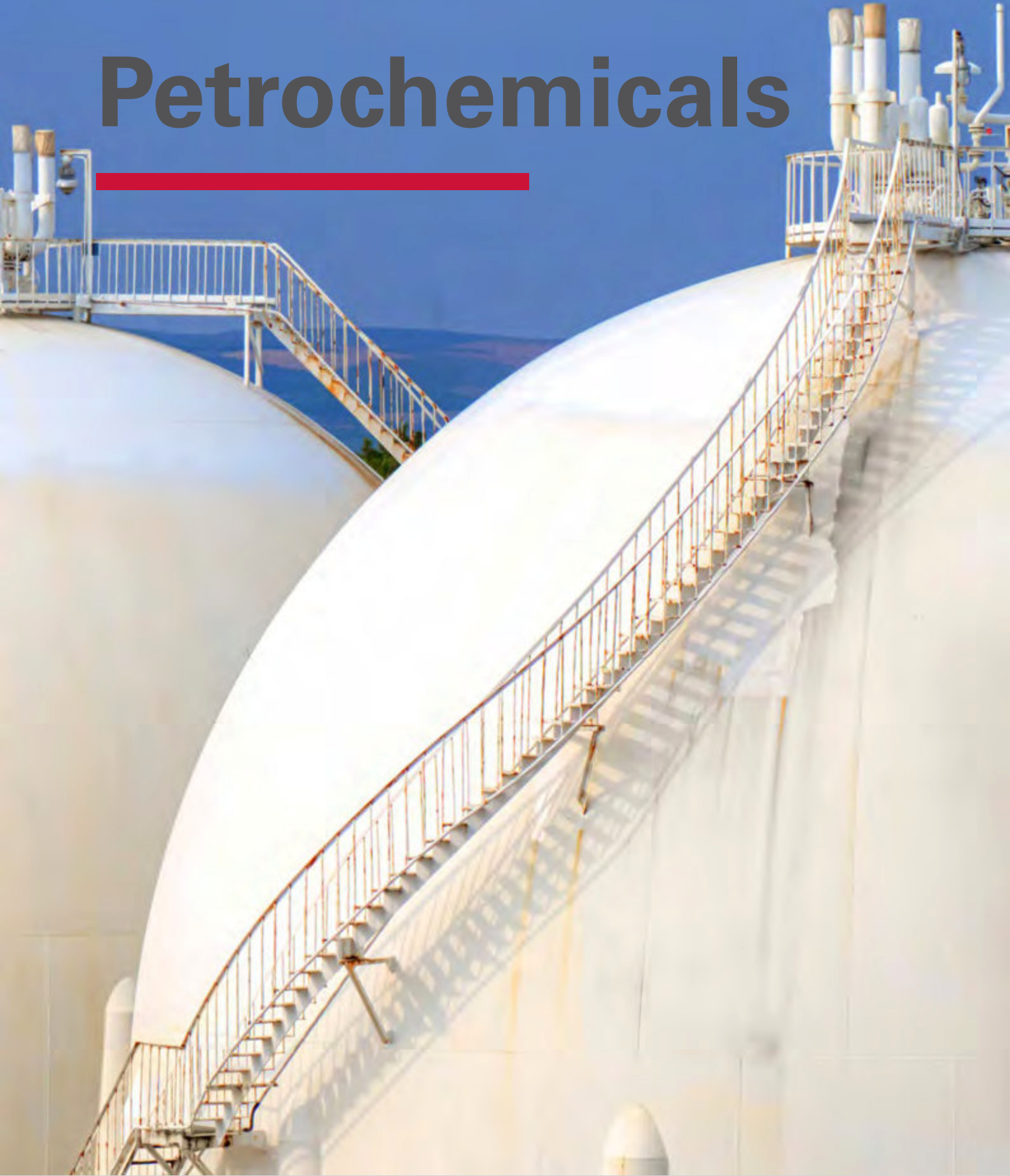


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OIL & GAS

Petrochemicals



Contents: Petrochemicals



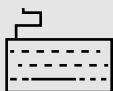
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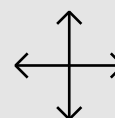
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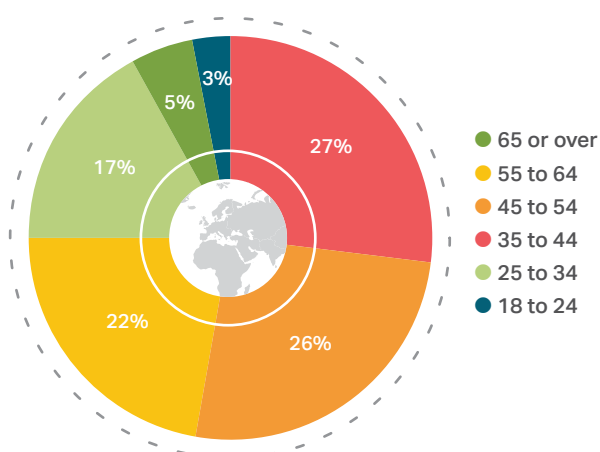


Petrochemicals

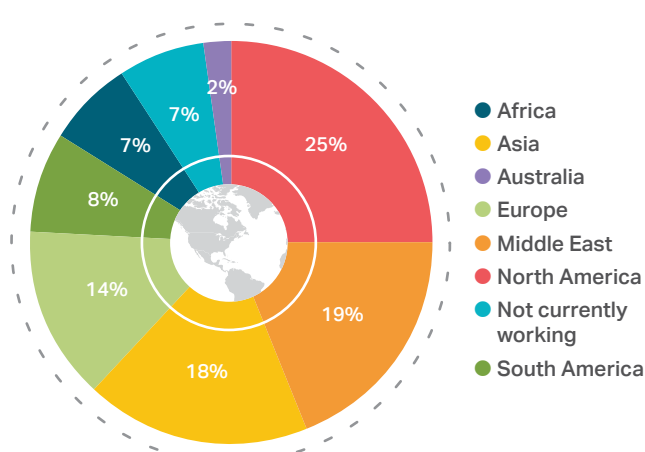
A safe haven for oil and gas professionals in recent years, the petrochemicals sector can't afford to rest on its laurels when it comes to retaining talent. Emphasising stability, security and culture will be increasingly important.

1. DEMOGRAPHICS

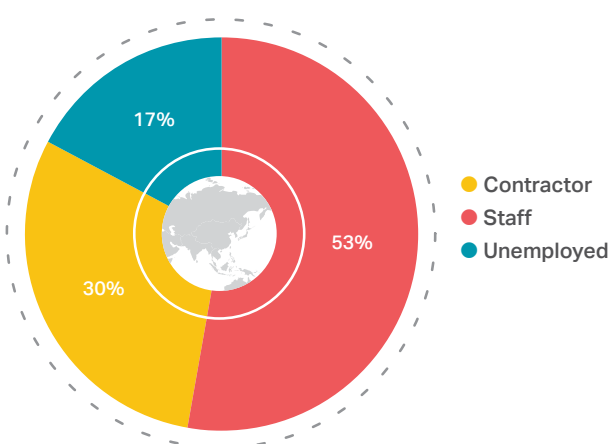
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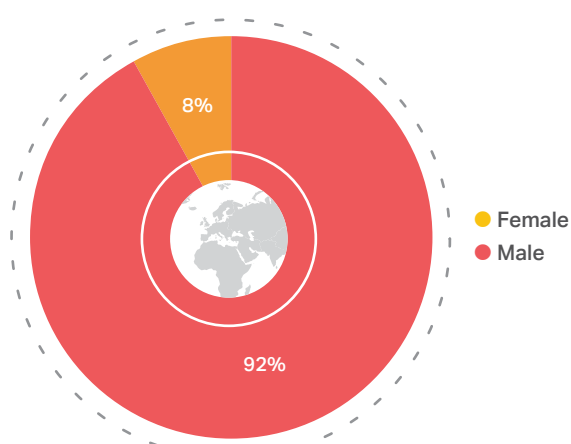
REGION



CONTRACT VS. PERMANENT



GENDER



2. SALARIES

In terms of compensation trends, the petrochemicals sector is in the middle of the pack. Forty-six per cent of professionals reported an increase in pay over the

last 12 months – the third-highest total among energy sectors. However, another 46 per cent said that their compensation levels had remained flat.

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

	Africa	Asia	Australasia	Europe	Middle East	North America
Administrator	24,883	36,000	46,800	36,747	33,525	36,000
Chemical Engineer	44,620	50,000	58,987	63,700	59,100	94,800
Chemist	25,070	62,945	54,345	57,200	66,200	87,003
Construction Manager	89,600	48,995	93,200	74,555	82,250	112,224
Electrical Engineer	45,476	70,664	68,445	61,845	75,811	92,041
Environmental Manager	26,985	41,800	62,000	31,496	44,380	88,551
Finance Manager	52,513	76,888	71,224	77,126	70,854	90,100
Health and Safety Manager	38,745	47,251	70,101	49,555	51,336	90,044
HR Manager	47,610	69,803	47,445	70,196	63,300	80,000
Lab Manager	21,563	63,551	79,723	42,887	56,999	75,000
Maintenance Technician	13,478	37,955	63,300	34,528	36,325	75,000
Mechanical Engineer	41,943	65,179	97,235	59,000	69,737	109,000
Office Manager	25,064	36,901	46,112	36,550	33,221	62,000
Planner	18,747	47,500	70,513	42,937	51,030	73,444
Process Engineer	89,159	68,196	131,592	63,323	69,550	120,000
Process Operation Production Manager	46,783	56,600	85,007	59,667	60,335	69,888
Project Coordinator	19,714	37,100	62,400	64,599	36,889	75,000
Purchasing Manager	43,211	63,951	81,394	64,000	58,250	85,000
Quality Assurance Manager	45,398	67,169	72,154	67,215	61,150	117,000
Technical Engineer	25,613	39,602	59,340	36,500	42,700	89,000

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

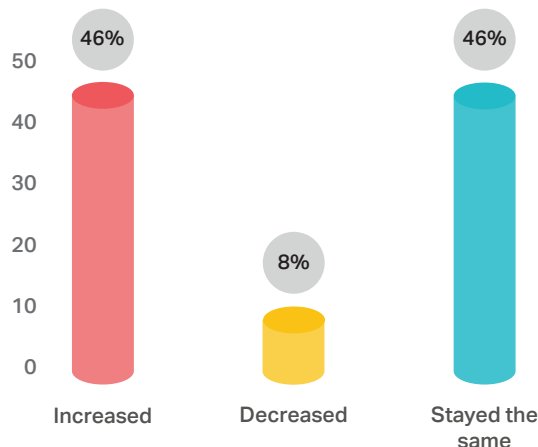
	Africa	Asia	Australasia	Europe	Middle East	North America
Administrator	75	105	125	140	89	223
Chemical Engineer	350	320	405	500	382	480
Chemist	213	238	235	285	228	277
Construction Manager	498	590	570	625	550	730
Electrical Engineer	328	380	410	490	390	437
Environmental Manager	310	325	334	444	355	500
Finance Manager	315	332	350	444	330	425
Health and Safety Manager	400	450	425	570	438	545
HR Manager	188	217	210	310	200	246
Lab Manager	228	245	250	300	243	275
Maintenance Technician	211	225	255	380	245	330
Mechanical Engineer	340	360	415	480	385	440
Office Manager	176	214	200	170	190	245
Planner	240	285	269	381	273	500
Process Engineer	300	325	278	420	305	344
Process Operation Production Manager	335	355	360	457	330	394
Project Coordinator	298	400	385	406	360	420
Purchasing Manager	330	360	375	385	365	387
Quality Assurance Manager	372	410	390	550	415	650
Technical Engineer	283	350	365	450	338	430

The same trend unfolded when gauging optimism towards remuneration in the year ahead. Overall, 64 per cent of professionals anticipated an increase.

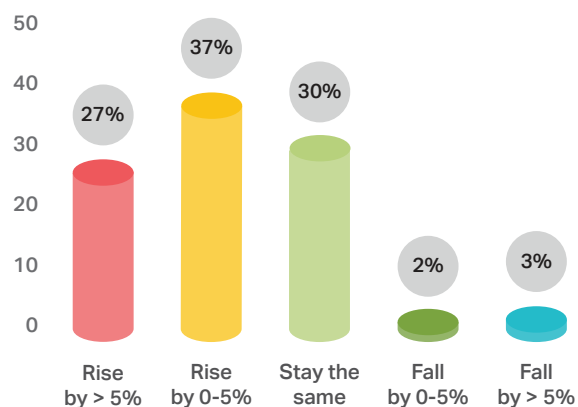
Hiring managers were just as positive as professionals – and among the most positive in the energy industry.

“The petrochemicals sector is currently flourishing, with by-products getting a big push from the lift in oil and gas activity. We expect this to boost the rate of pay increases, which are already quite stable and consistent,” said Hannah Peet, Managing Director at Energy Jobline.

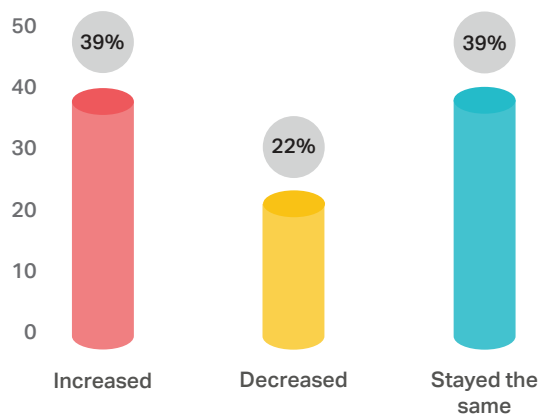
PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(professionals)



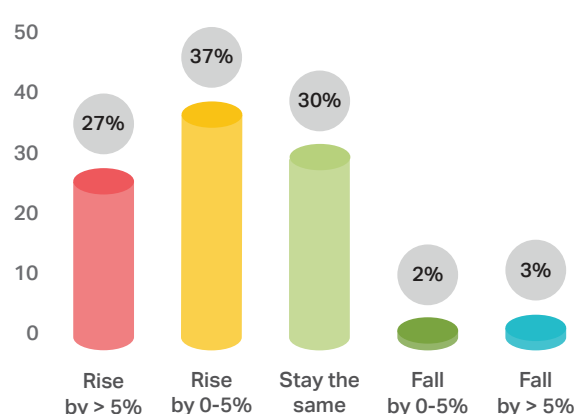
PAY EXPECTATIONS AMONG WORKERS IN THE LAST 12 MONTHS
(professionals)



PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(hiring managers)



PAY EXPECTATIONS AMONG WORKERS IN THE LAST 12 MONTHS
(hiring managers)



“The petrochemicals sector is currently flourishing, with by-products getting a big push from the lift in oil and gas activity. We expect this to boost the rate of pay increases, which are already quite stable and consistent.” – Hannah Peet



3. HAPPINESS

Given its reputation for job security, stability is a phrase often associated with the petrochemicals sector. When it comes to the level of happiness among professionals, stability shines through.

Thirty-one per cent of workers said that they were just as content now as they were three years ago, a figure that surpasses every other sector. Thirty-five per cent of respondents said they were happier.

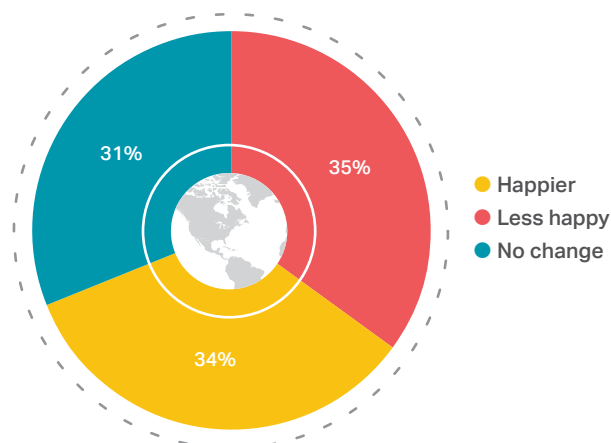
“More cutting-edge projects are kicking off and hiring is healthy in almost every area. This buzz is certainly getting people excited,” said Peet.

In recent years, the petrochemicals sector has provided refuge for individuals who wanted to escape the turbulence of life in oil and gas. Yet survey data shows that job security and pay have failed to have as much of an effect on happiness as one might expect.

Instead, flexible working and increased responsibility were the leading drivers of contentment among professionals. In both areas, petrochemicals well outpaced other sectors.

The working environment was also cited as a source of happiness, especially for women. Overall, women were over 40 per cent more likely to report increased happiness than their male counterparts.

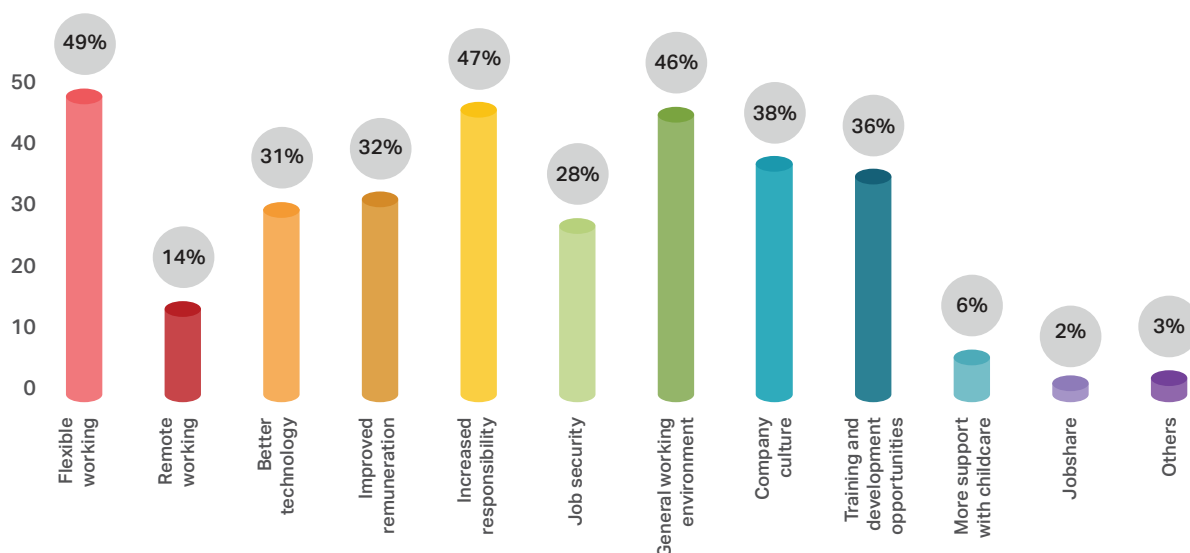
ARE YOU HAPPIER OR LESS HAPPY? (professionals)



Opportunities for remote working and increased responsibility had a strong hand in this, highlighting the positive impact of providing flexibility and clear paths for career progression to women.

Conversely, a lack of training opportunities and job security bred unhappiness among some workers.

WHY ARE YOU HAPPIER? (professionals)





4. DIGITALISATION

Between the abundance of exciting projects and the impact of flexible working, digitalisation has created a buzz in the sector.

Yet, the greatest benefits of digitalisation could be realised on the operational side. Even with all the energy and excitement in petrochemicals, the sector should be cautious that some professionals might seek a return to oil and gas.

If talent becomes scarce, automation will be essential in closing that gap. Greater efficiencies and the use of analytics to enhance operational infrastructure can help companies maintain or even increase their working capacity.

Both hiring managers and workers see the upsides of automation. Increased productivity and increased efficiency were ranked highly as a major benefit.

Younger professionals were much more optimistic about the potential for digitalisation to reduce risk and enhance their ability to make more informed decisions.

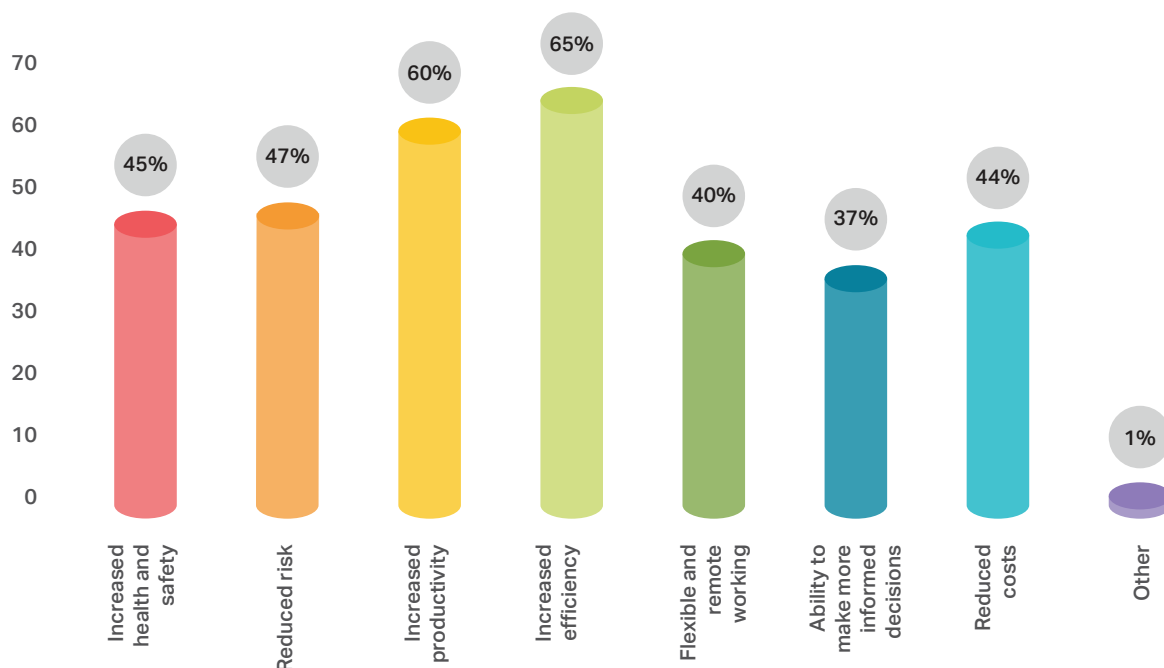
While many remained unsure about the total benefits, no one aged 18 to 24 had a negative perception of digitalisation.

Overall, most workers and hiring managers shared favourable views. Respectively, 77 and 82 per cent thought automation and digitalisation were beneficial.

“Petrochemicals was right in the middle when it came to optimism about digitalisation. Companies are quicker to embrace new technologies than those in oil and gas, but they still lag behind the more innovative sectors.” noted Janette Marx, Chief Operating Officer at Airswift.

Petrochemicals also sat in the middle when it came to concerns over the impact of digitalisation. Reduction in human judgement and pay stagnation were areas where professionals were less concerned than peers in oil and gas.

WHICH OF THESE BENEFITS DO AUTOMATION AND DIGITALISATION BRING TO YOUR SECTOR? (professionals)





5. GLOBAL MOBILITY

The petrochemicals sector is very fluid, with professionals moving easily between companies. Yet, this ease of transition doesn't translate into abundant mobility between various regions, with only 54 per cent of employers offering cross-regional job transfers.

The hiring trends and needs for skills are major drivers. Over the last year, hiring demand has centred on blue collar roles, but these do not tend to be recruited for globally.

"The need for labour in petrochemicals exploded over the last year," said Peet. "There was a vast movement of talent into the sector, but much of the hiring was local. Most companies aren't going to cover relocation for the roles that have been in high demand."

Furthermore, training employees can be seen as more important than hiring from abroad. As Marx notes, "The strategy we often see with petrochemicals companies is hiring individuals with the intelligence to

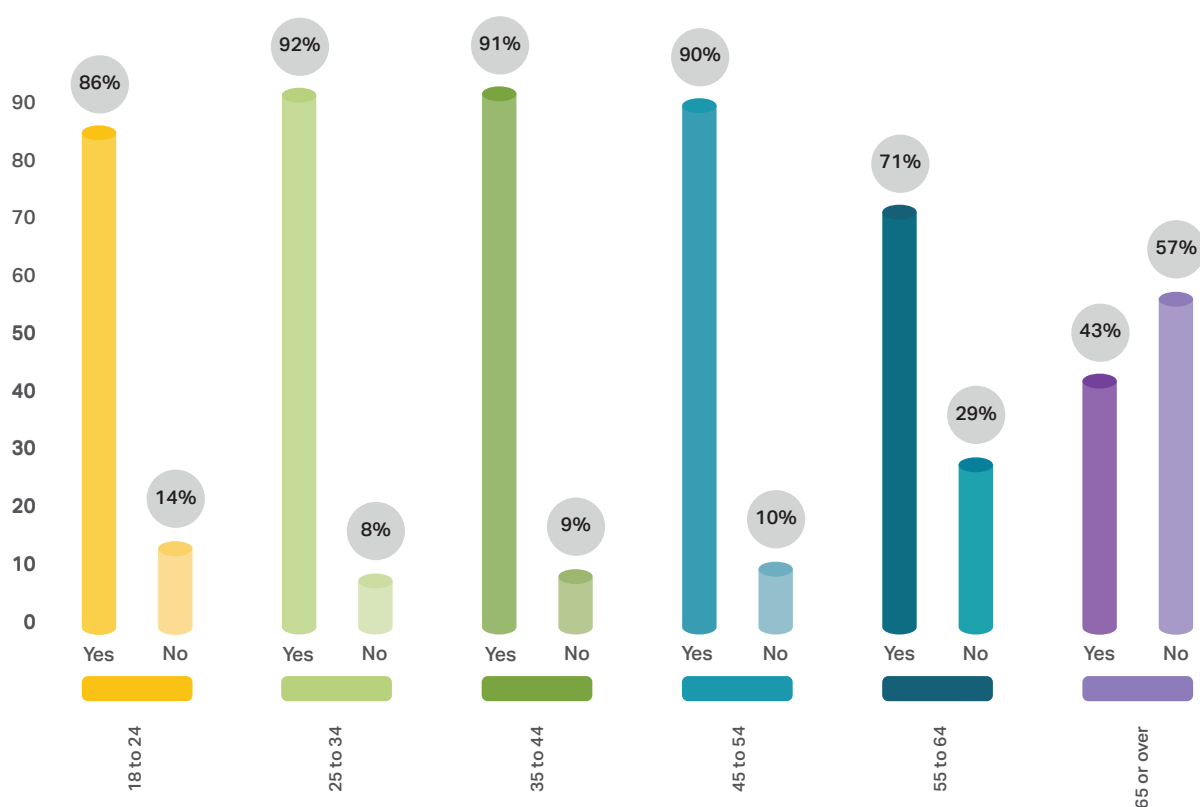
train up in specific skill sets. Once these workers are on board, they tend to stay for a long time."

With that said, companies continue to rely on their existing expat talent. Perhaps surprisingly, petrochemicals reported the highest percentage of expat talent of any sector, slightly higher than oil and gas.

Appetite for cross-region movement remains solid among professionals, even as the preference for local talent persists. Eighty-five per cent of respondents would consider relocating, with North America the most popular destination (closely followed by Asia and Europe). Those aged between 25 and 54 were even more likely to think about a move.

More than any other energy sector, money was a key driver for petrochemicals professionals. Forty-two per cent cited it as a leading driver of relocation. This was especially true for younger workers.

WOULD YOU CONSIDER RELOCATING TO ANOTHER REGION FOR YOUR JOB? (professionals)





6. SKILLS

TODAY'S TALENT, TOMORROW'S TECHNOLOGY

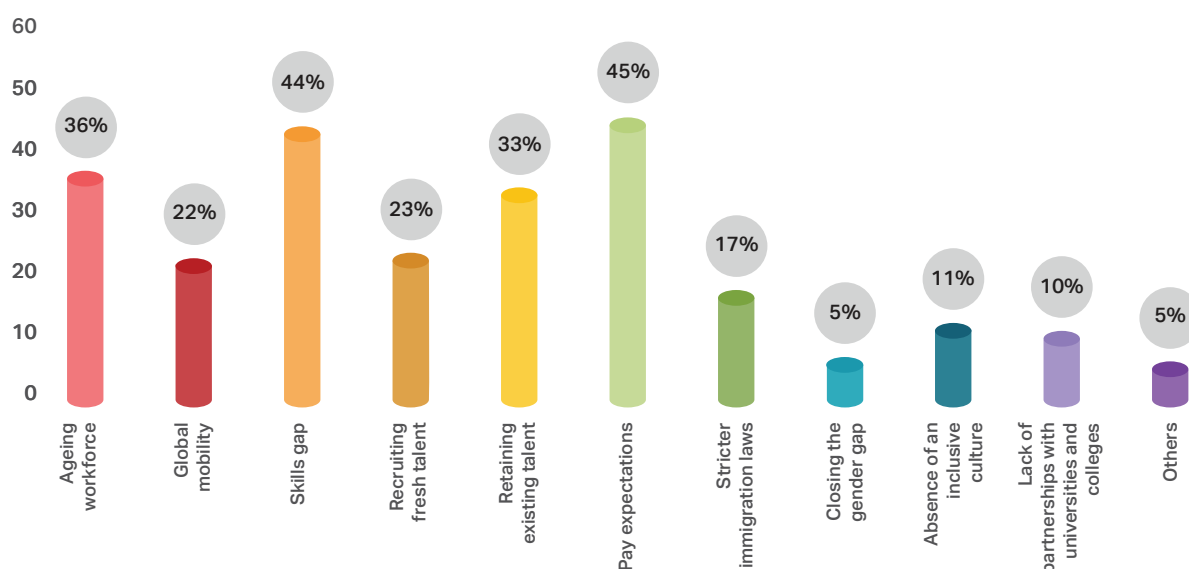
Petrochemicals professionals are less worried about a skills gap than their peers in other sectors. However, many individuals expressed concern that stagnant pay could pose a significant challenge to the sector in the coming years.

"No sector is immune to the ageing workforce. Yet, if the petrochemicals skills gap increases in the next few years, it may have more to do with compensation than retirement. Increases in oil and gas may prove tantalising enough to reverse the flow of talent between the two industries," said Peet.

In the meantime, the advancement of digitalisation will create additional skill needs, especially in data analytics. As in the oil and gas sector, petrochemicals companies are tapping more into big data to enhance operations and productivity.

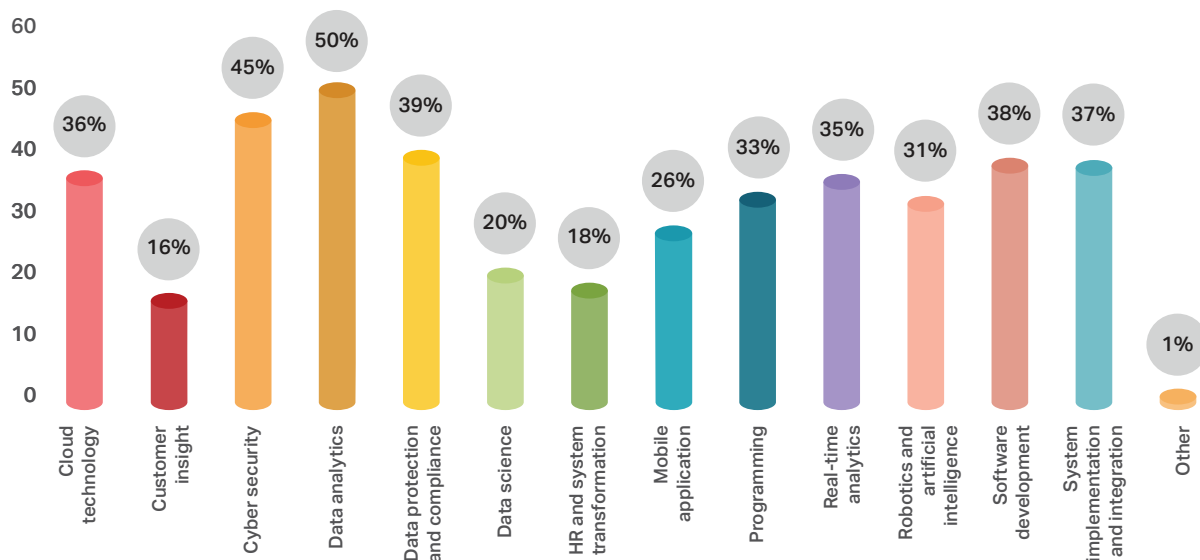
"No sector is immune to the ageing workforce. Yet, if the petrochemicals skills gap increases in the next few years, it may have more to do with compensation than retirement. Increases in oil and gas may prove tantalising enough to reverse the flow of talent between the two industries." – Hannah Peet

WHAT ARE THE BIGGEST WORKFORCE CHALLENGES FACING THE SECTOR? (professionals)





WHICH AREAS OF EXPERTISE WILL BE IN GREATER DEMAND AS A RESULT OF AUTOMATION? (hiring managers)



Cyber security is another area where skill sets will need to expand, though the petrochemicals sector considers this much less of a priority than other energy industries.

The onus on developing homegrown talent is reflected in how hiring managers are addressing specific skills needs. Respondents in petrochemicals were slightly more likely than their peers in any other sector to rely on graduate/apprentice schemes. Eighty-two per cent of hiring managers said they would utilise new training and development programmes.

“More petrochemicals companies want to make sense of the vast volumes of data being produced by newer technologies, which means there will be opportunities for existing workers to enhance their roles,” said Peet.

“More petrochemicals companies want to make sense of the vast volumes of data being produced by newer technologies, which means there will be opportunities for existing workers to enhance their roles.” – Hannah Peet

7. ATTRACTING TALENT

SHOWCASING STABILITY

Despite the potential appeal of its perceived stability to talent, only half of petrochemicals respondents believe that the sector does a good job of marketing itself to prospective talent. Most felt that improved training programmes and better compensation are necessary to attract the best people.

Culture is also important. The prevalence of blue-collar opportunities may create the image of a petrochemicals sector that is laborious and dated.

“Similar to oil and gas, petrochemicals companies can do more to communicate the cutting-edge projects that are happening in the sector,” said Marx.

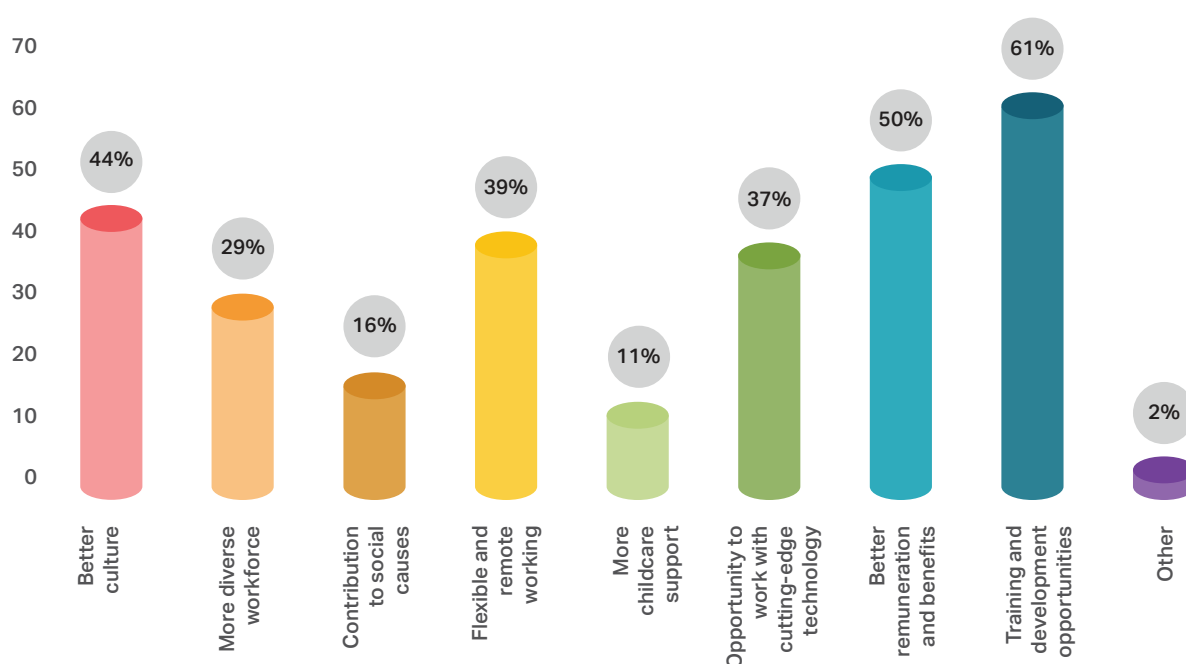
“Likewise, hiring managers can lean on culture to demonstrate the differences between petrochemicals and oil and gas. With more long-term roles and a focus on staying local, this sector is ideal for anyone who wants to develop their career in one place.”

Hiring managers agreed with this assessment, noting better culture as something that ensures the sector becomes more appealing to professionals. Remuneration and training were again influential.

However, respondents were slightly less likely to see flexible working and the chance to work with innovative technologies as important compared to peers in other sectors.

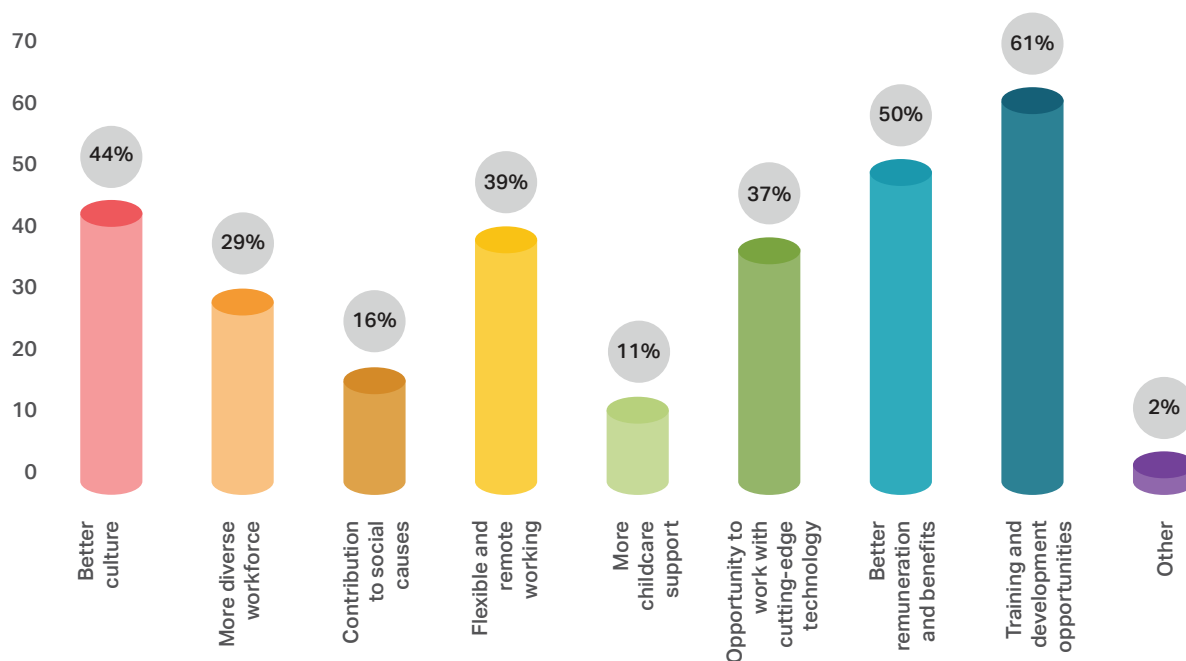
“Similar to oil and gas, petrochemicals companies can do more to communicate the cutting-edge projects that are happening in the sector.”
– Janette Marx

WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (professionals)





WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (hiring managers)



Flexible working and childcare were especially popular among professionals aged 35-44. Women favoured these aspects – though interestingly, men were more concerned with improving culture and fostering a more diverse workforce than their female peers.

“The gender gap remains an issue in petrochemicals as it does across the energy sector. Yet, the culture seems to be much more supportive of working parents. Not a surprise, considering its focus on building local talent, which helps create a sense of community,” said Peet.

“The gender gap remains an issue in petrochemicals as it does across the energy sector. Yet, the culture seems to be much more supportive of working parents. Not a surprise, considering its focus on building local talent, which helps create a sense of community.” – Hannah Peet

8. RETAINING TALENT

PROVIDING THE FULL PACKAGE

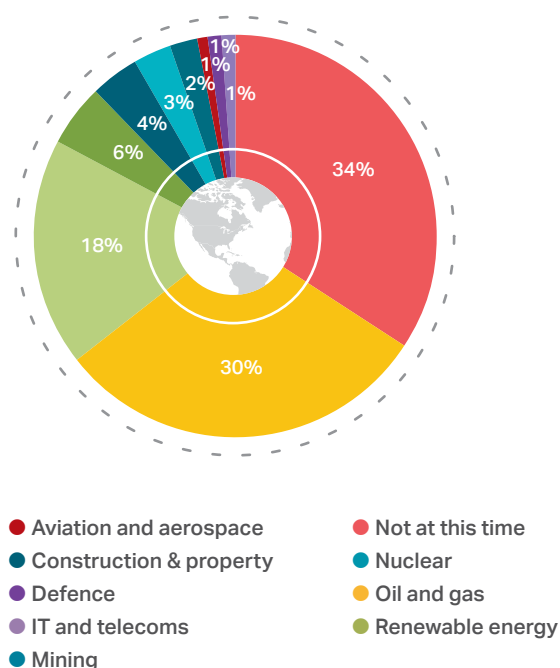
The petrochemicals sector may find it challenging to retain existing professionals as wages in oil and gas continue to rise. Data confirms just how tantalising this move may be.

Thirty per cent of workers considering a move out of petrochemicals were eyeing oil and gas, compared to just 18 per cent who were intrigued by renewables – making petrochemicals the only sector where renewables wasn't the top choice.

In contrast, just 34 per cent of respondents wanted to stay put.

However, petrochemicals companies have strengths that go beyond pay. They can succeed by appealing to the advantages offered by their sector: stability, community and culture.

WOULD YOU CONSIDER SWITCHING TO A ROLE IN ANOTHER SECTOR OVER THE NEXT THREE YEARS? (professionals)

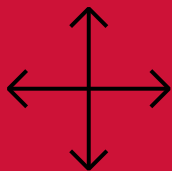


"Petrochemicals companies can't compete on pay alone, but they can make it part of a bigger package," said Marx. "Providing a strong sense of job security along with a relaxed working environment can help sway people to stay."

Career advancement is one area worth targeting. Though compensation was essential, opportunities for progression were ultimately the most important factor behind a potential move.

Likewise, stability is a strong draw for contractors. Forty per cent of contract workers reported the desire to become a full-time employee in the next few years.

"Petrochemicals companies can't compete on pay alone, but they can make it part of a bigger package. Providing a strong sense of job security along with a relaxed working environment can help sway people to stay." – Janette Marx



Summary Petrochemicals

Over the last few years, the petrochemicals sector has enjoyed advantages in the energy talent tug-of-war. However, hiring managers need to be mindful of the recovery in oil and gas. Companies must re-assess and strengthen their points of appeal to energy professionals – or risk being blindsided by a rush for more pay.

“Now is the time for petrochemicals companies to think about offering more than just stability,” said Peet. “It’s all about a longer career path in an environment that lets people live the lives they want.”



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airswift

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Power



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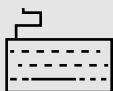
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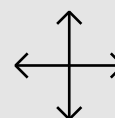
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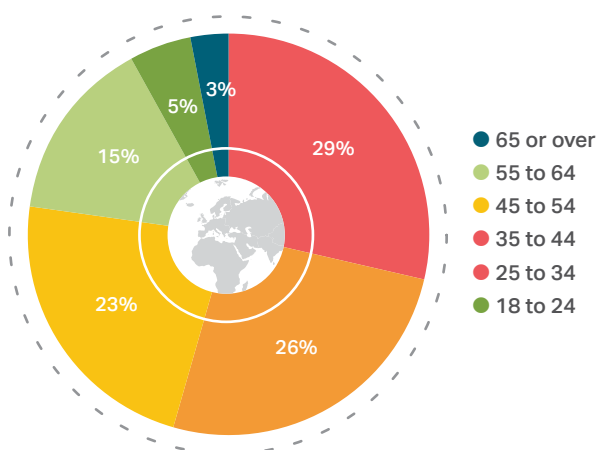


Power

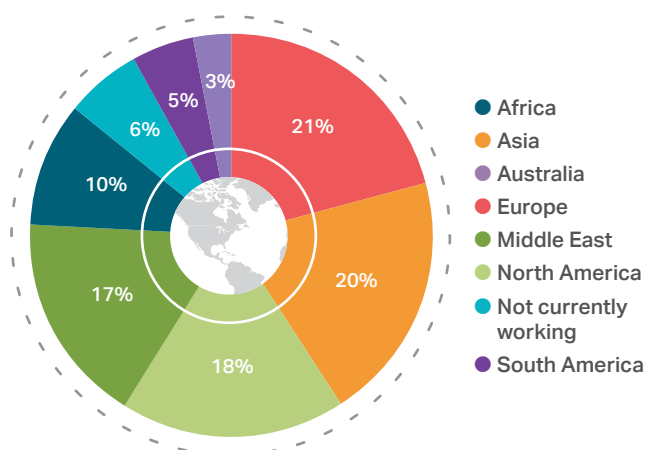
Power hasn't suffered the same turbulence as other energy sectors in recent years. The result is a happy and well-rewarded workforce. However, there's no room for complacency: power professionals are willing to make a move and if the sector is to attract and retain the talent it needs, it will have to think carefully about digital trends.

1. DEMOGRAPHICS

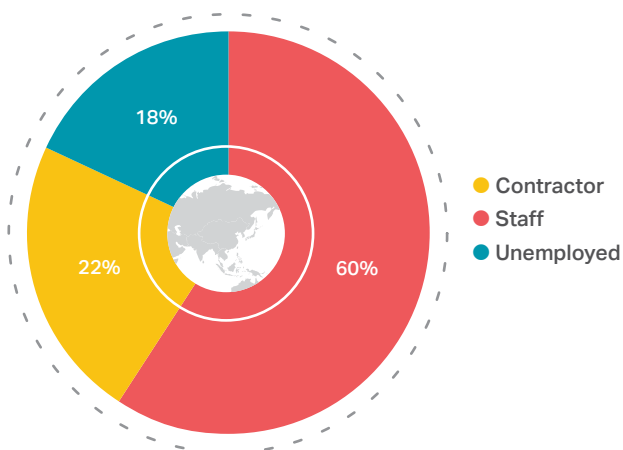
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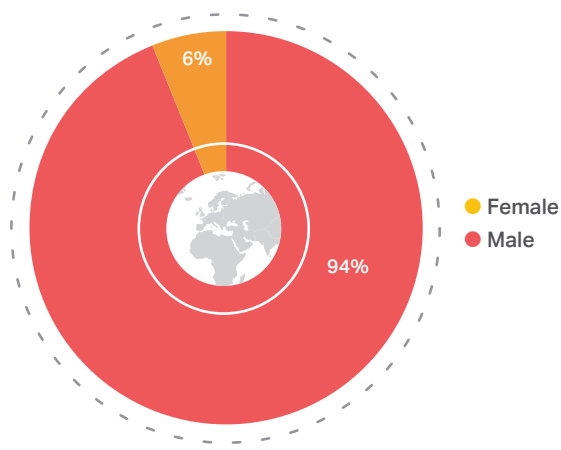
REGION



CONTRACT VS. PERMANENT



GENDER



2. SALARIES

Power pays – only the oil and gas industry was better remunerated and 50 per cent of professionals reported a salary or contract rate increase last year

– more than in any other sector. It also boasts the fewest professionals who reported a decrease, with just six per cent losing out.

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

	Africa	Asia	Australasia	Europe	Middle East	North America
Commissioning Engineer	52,807	69,179	65,616	67,021	63,354	105,000
Construction Manager	64,119	71,070	76,384	74,558	75,967	110,000
Control Room Operator	40,513	43,696	42,490	48,625	50,252	76,000
Design Engineer	49,103	51,649	53,932	55,803	57,843	85,000
Electrical Engineer	62,749	71,459	64,188	74,442	68,093	94,000
HSE Manager	55,224	60,185	63,791	69,100	63,500	86,545
Inspection Engineer	52,300	66,106	60,113	62,468	68,227	80,000
Instrumentation Engineer	50,174	66,943	55,200	56,757	65,623	87,000
Maintenance Engineer	52,791	72,232	62,000	73,400	75,065	85,000
Mechanical Engineer	56,357	67,570	63,964	69,457	73,827	100,000
Plant Manager	49,167	57,000	58,102	61,067	67,013	81,600
Project Engineer	54,827	64,446	66,010	70,431	62,400	89,900
Project Manager	60,921	70,109	67,800	77,106	74,317	121,000
QA/QC Inspector	64,223	68,033	71,332	72,237	78,224	93,600
Quantity Surveyor	46,945	60,100	61,836	59,774	65,772	78,600



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

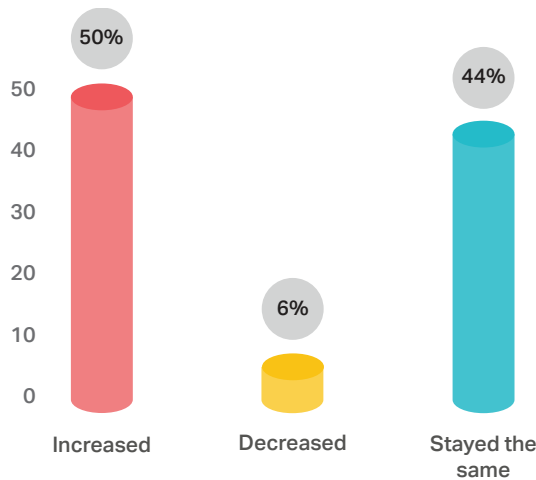
	Africa	Asia	Australasia	Europe	Middle East	North America
Commissioning Engineer	395	472	440	485	455	470
Construction Manager	450	562	540	650	525	600
Control Room Operator	313	340	350	380	330	410
Design Engineer	365	393	405	460	415	425
Electrical Engineer	510	560	520	535	550	620
HSE Manager	415	452	428	560	457	495
Inspection Engineer	420	440	430	492	456	500
Instrumentation Engineer	395	420	417	485	446	435
Maintenance Engineer	453	535	522	500	590	556
Mechanical Engineer	476	556	530	525	519	570
Plant Manager	384	473	439	540	478	456
Project Engineer	396	425	487	595	470	550
Project Manager	526	625	586	725	635	693
QA/QC Inspector	512	525	538	570	555	642
Quantity Surveyor	386	435	410	444	408	453

And the good times are set to continue: 69 per cent of workers are confident of a pay rise in 2018. The next most optimistic sector is renewables at 64 per cent.

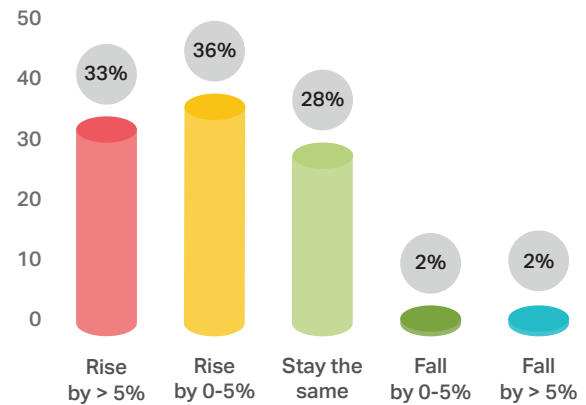
The picture is the same for hiring managers, with 64 per cent expecting remuneration to rise in 2018 – tied for the top spot with petrochemicals.

“The power sector hasn’t suffered the same shocks as others: untouched by the oil price and unconcerned about subsidy uncertainty. At the same time, the intermittency of renewables and move to distributed generation have made the power sector more important than ever. That has been reflected in salaries and contract rates, and it looks set to continue,” said Hannah Peet, Managing Director at Energy Jobline.

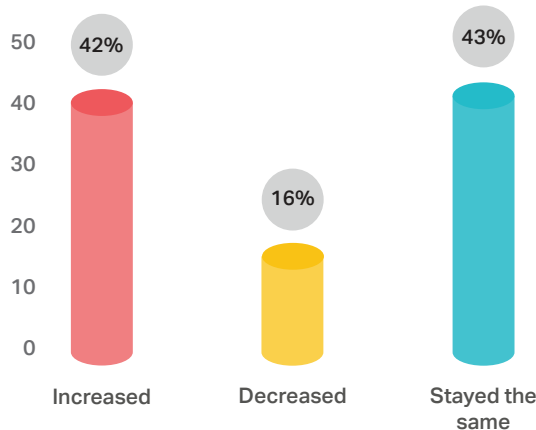
PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(professionals)



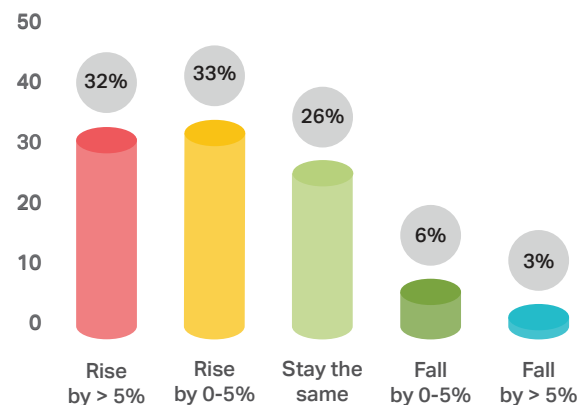
PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS
(professionals)



PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(hiring managers)



PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS
(hiring managers)



“The power sector hasn’t suffered the same shocks as others: untouched by the oil price and unconcerned about subsidy uncertainty. At the same time, the intermittency of renewables and move to distributed generation have made

the power sector more important than ever. That has been reflected in salaries and contract rates, and it looks set to continue.” – Hannah Peet



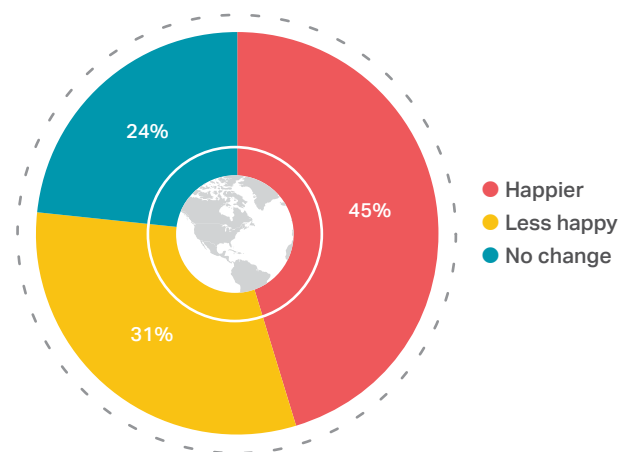
3. HAPPINESS

For the employee in pursuit of happiness, the power sector is worth considering. Forty-five per cent of power professionals said they were happier now than three years ago – more than in any other sector.

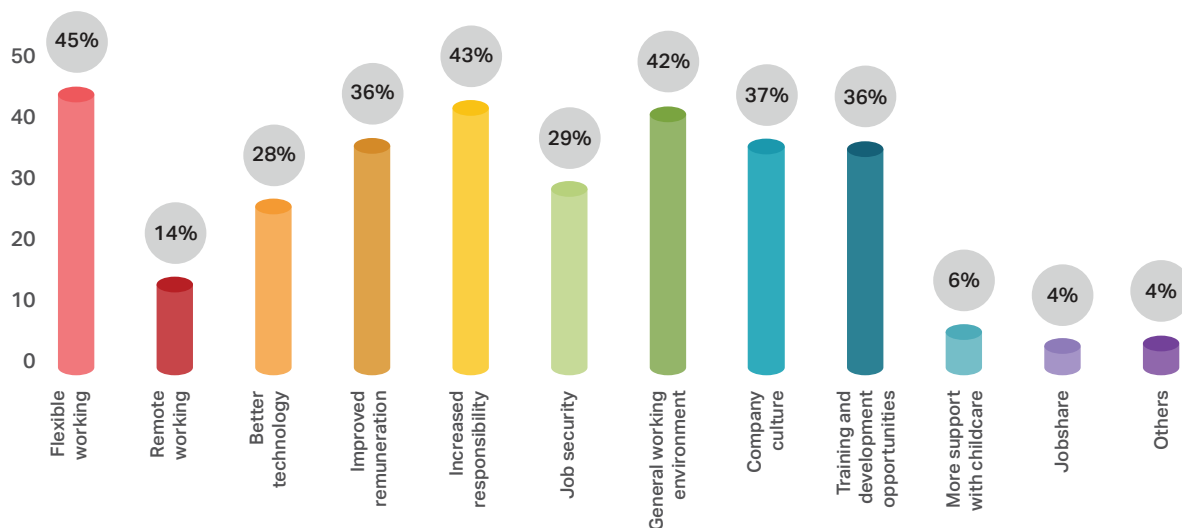
The top reason was flexible working, implying that lifestyle trends associated with digitalisation are playing a role in boosting contentment.

What's more, only 31 per cent of employees in power reported being less happy than three years ago – the lowest proportion of any sector after renewables. For those that were less happy, a lack of job security was the main factor. This was also the biggest concern for power professionals when asked to consider the negative outcomes of automation and digitalisation.

ARE YOU HAPPIER OR LESS HAPPY? (professionals)



WHY ARE YOU HAPPIER? (professionals)



"The power sector is clearly doing well on keeping its employees happy, but hiring managers should be mindful that the relationship between digitalisation and happiness in the sector isn't straightforward," said Hannah Peet.

Strangely though, hiring managers are convinced that the polar opposite is happening: only 24 per cent thought power professionals happier than three years ago, with 55 per cent stating they were less happy.



Like workers, hiring managers flagged job insecurity as the main driver for decreased happiness. They also mirrored professionals in identifying this as a leading negative outcome of automation and digitalisation in the sector.

“Hiring managers would benefit from refreshing their understanding of happiness in the power sector. It’s great to see so many people becoming happier, but hirers need to better understand why that is in order to attract and retain talent,” said Peet.

“The power sector is clearly doing well on keeping its employees happy, but hiring managers should be mindful that the relationship between digitalisation and happiness in the sector isn’t straightforward.” – Hannah Peet



4. DIGITALISATION

With smart meters, battery storage and smart home applications, the power sector has made some of the most conspicuous digital progress of any sector.

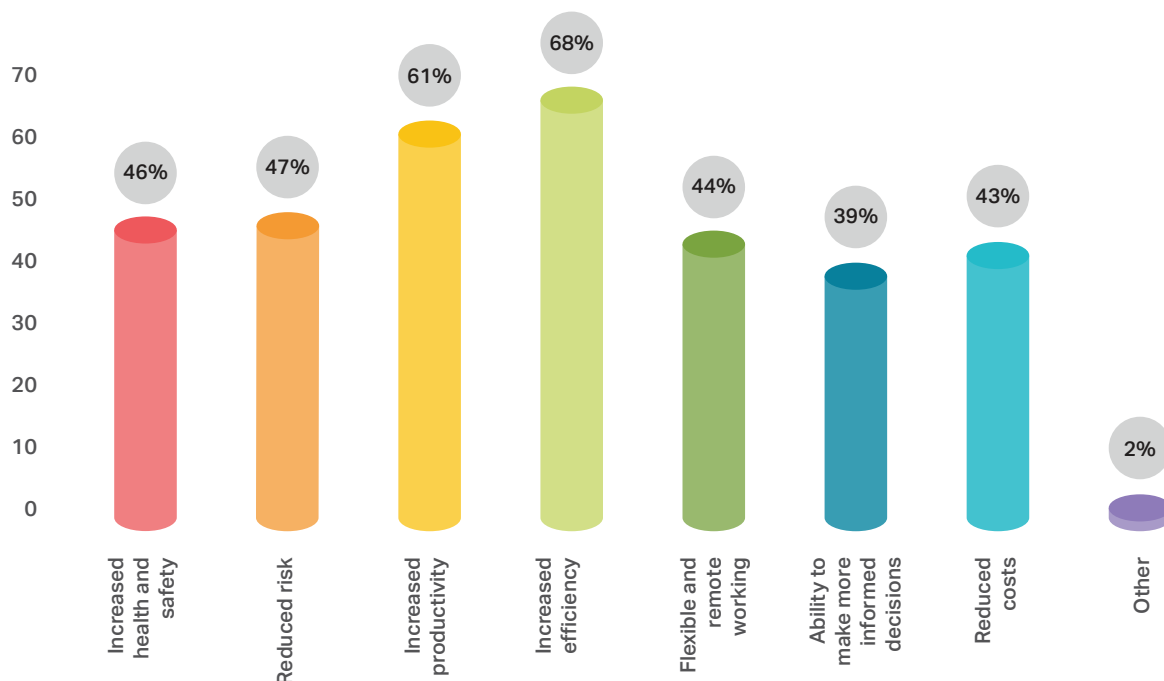
Perhaps it's not surprising then, that 79 per cent of power sector professionals see digitalisation as a positive development – more than in any other sector (just edging renewables). Hirers were similarly optimistic, with 83 per cent agreeing digitalisation is positive.

Both workers and hiring managers agree that the top benefits of digitalisation are increased efficiency, increased productivity and reduced risk, respectively. Beyond this, 46 per cent of professionals cited increased health and safety as a benefit – more than any other sector – and 44 per cent pointed to flexible working, more respondents than any sector except renewables.

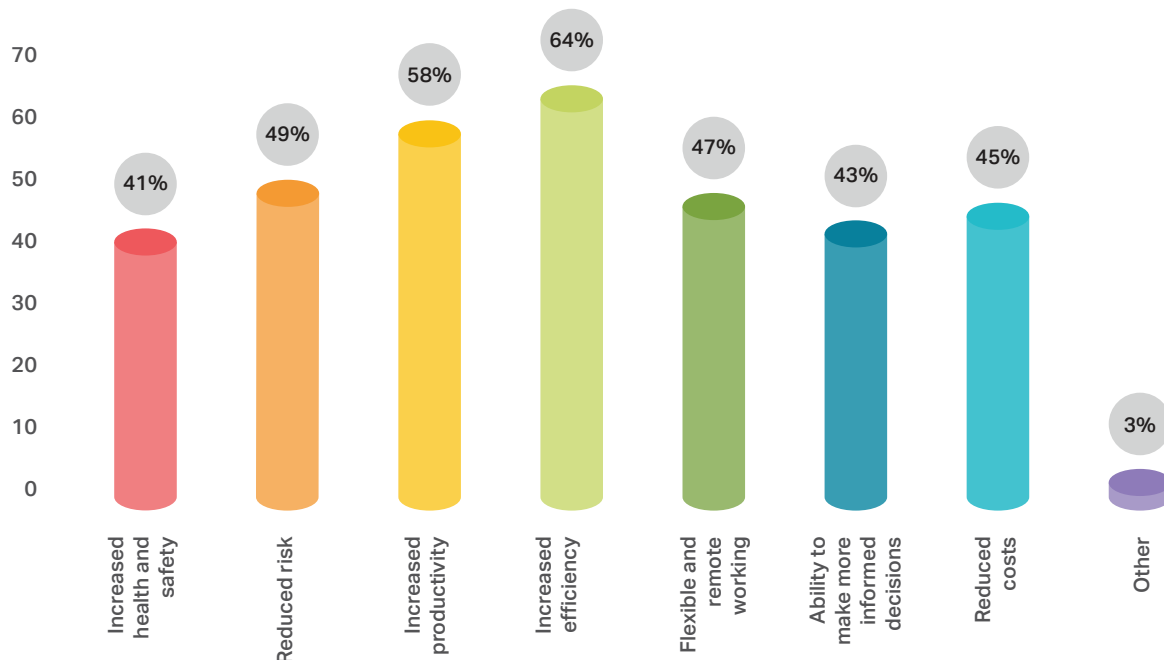
“The power sector has had to digitalise faster than others, so we should pay attention to what workers and hirers highlight as benefits,” said Janette Marx, Chief Operating Officer, Airswift. “The fact that more personal benefits – like flexible working – take a backseat to broader, organisational gains like efficiency and productivity, shows us that digitalisation is more than hype – it really is transformative.”

“The power sector has had to digitalise faster than others, so we should pay attention to what workers and hirers highlight as benefits.” – Janette Marx

WHICH OF THESE BENEFITS DO AUTOMATION AND DIGITALISATION BRING TO YOUR SECTOR? (professionals)



WHICH OF THESE BENEFITS DO AUTOMATION AND DIGITALISATION BRING TO YOUR SECTOR? (hiring managers)

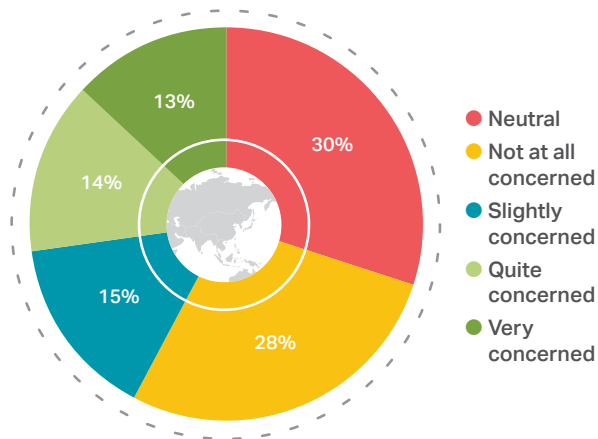


Despite the power sector's enthusiastic embrace of digitalisation, concerns do remain. Half of professionals cited job insecurity as a negative outcome – only oil and gas workers were more apprehensive on this front. Forty-seven per cent were concerned about the reduction in human judgement, while 29 per cent cited an always-on culture.

Power also had the highest percentage of professionals reporting that they were 'very concerned' that the rise of automation and digitalisation could replace the need for their role in the future.

"Professionals from all sectors identify job insecurity as a risk of digitalisation. In power, there is a significant majority that's very worried by this."
– Hannah Peet

HOW CONCERNED ARE YOU THAT THE RISE OF AUTOMATION AND DIGITALISATION COULD REPLACE THE NEED FOR YOUR ROLE IN THE FUTURE?



"Professionals from all sectors identify job insecurity as a risk of digitalisation," said Peet. "In power, there is a significant majority that's very worried by this. However, for the most part this is based on a misperception: digitalisation is likely to change their role, but not replace it. Training programmes and education should help most workers adapt to a more digital future."



5. GLOBAL MOBILITY

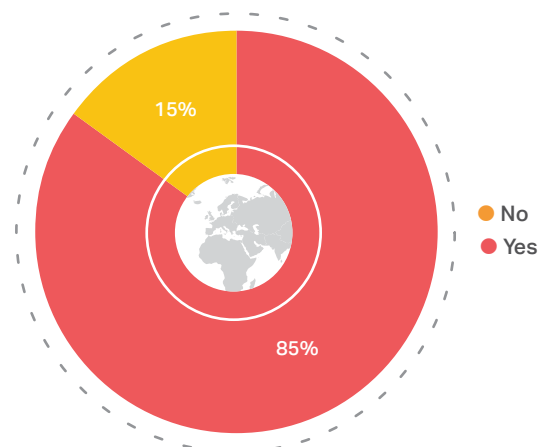
Power professionals are very open to relocating – perhaps unsurprising given that nearly a third of power professionals are already expats. The most in-demand regions were North America (28 per cent) and Europe (27 per cent), which is in large part due to views that countries in those regions are able to offer a more comfortable lifestyle.

Younger professionals are most keen to make an international move: 98 per cent of those aged 18-24, and 92 per cent of those aged 24-34 would consider relocating. As competition for new talent grows, providing relocation opportunities may be a vital differentiator.

As with every other sector, the number of companies that promoted cross-regional job transfers fell well short of the number of professionals that would consider relocating. In the power sector, only 55 per cent of workers said their company did so, compared to an all-sector average of 53 per cent.

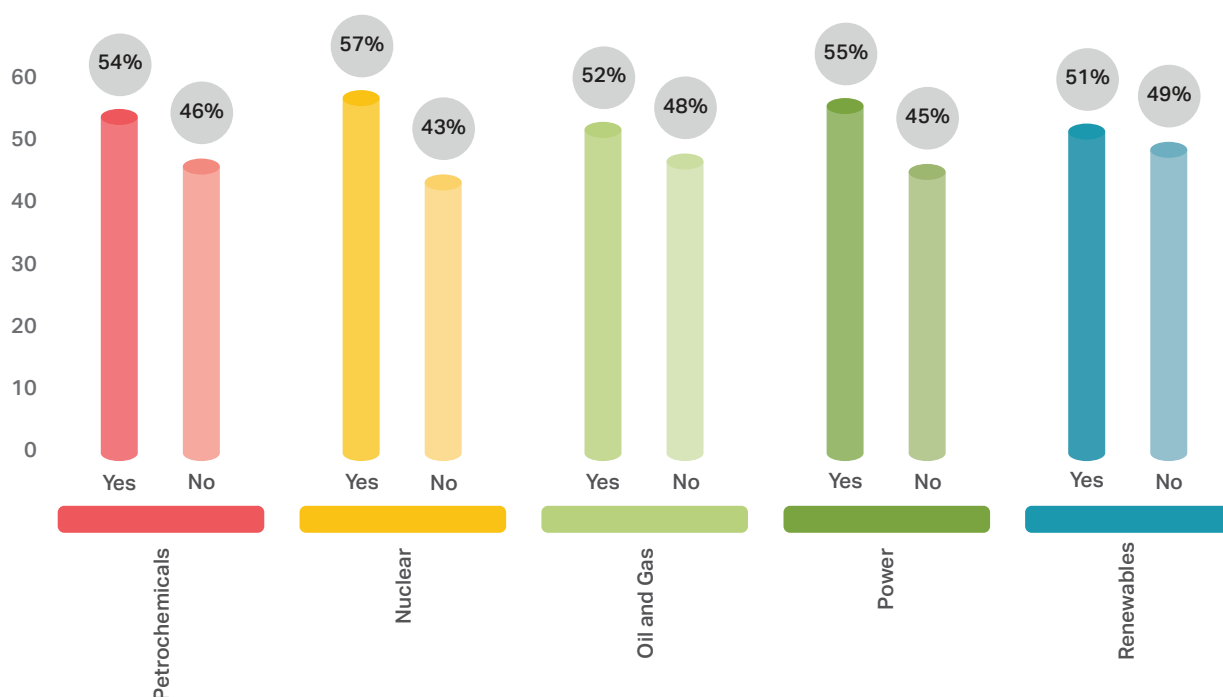
Peet said: “Many power companies – such as transmission and distribution system operators – are restricted to one home region by nature and thus unable to offer cross-regional transfers.

WOULD YOU BE WILLING TO RELOCATE TO ANOTHER REGION FOR WORK?



“These may be bringing the average down and masking a set of very internationally-minded power companies – if so, that’s something hirers can really use to gain an edge, especially with younger talent who are often more likely to be interested in a move abroad.”

DOES YOUR COMPANY PROMOTE CROSS-REGIONAL JOB TRANSFERS? (hiring managers)





6. SKILLS

DIGITAL SKILLS FOR A DIGITAL SECTOR

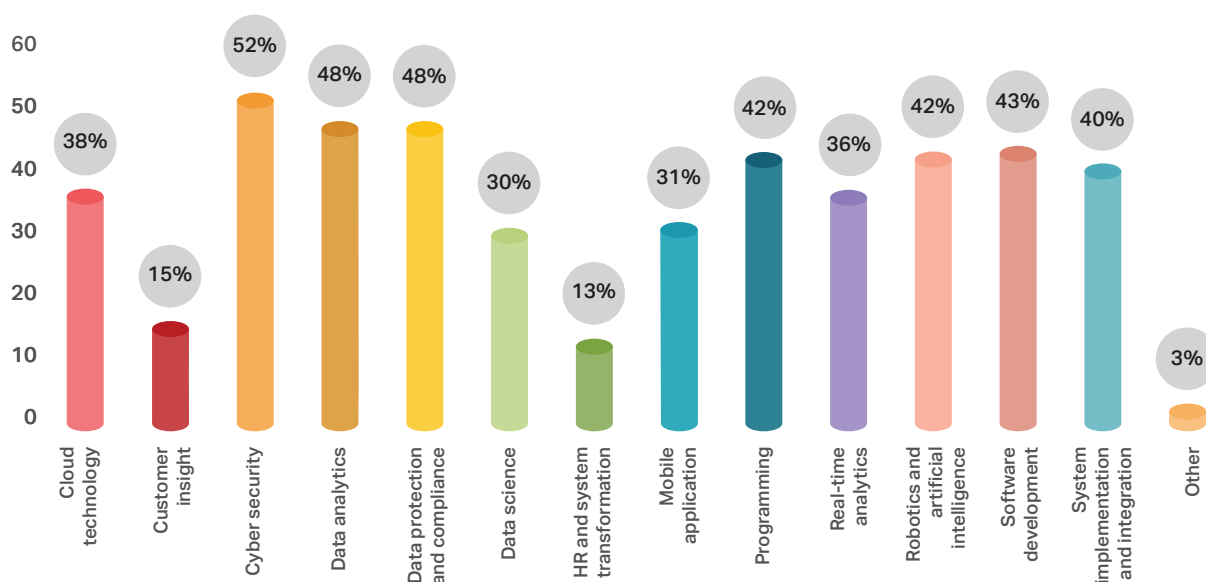
As the power sector digitalises, so does the skillset it requires.

Both workers and hirers recognise this. Forty-eight per cent of professionals and 46 per cent of hirers identified data analysis as an area of expertise that will be in greater demand. A further 48 per cent of workers and 41 per cent of hirers pointed to data

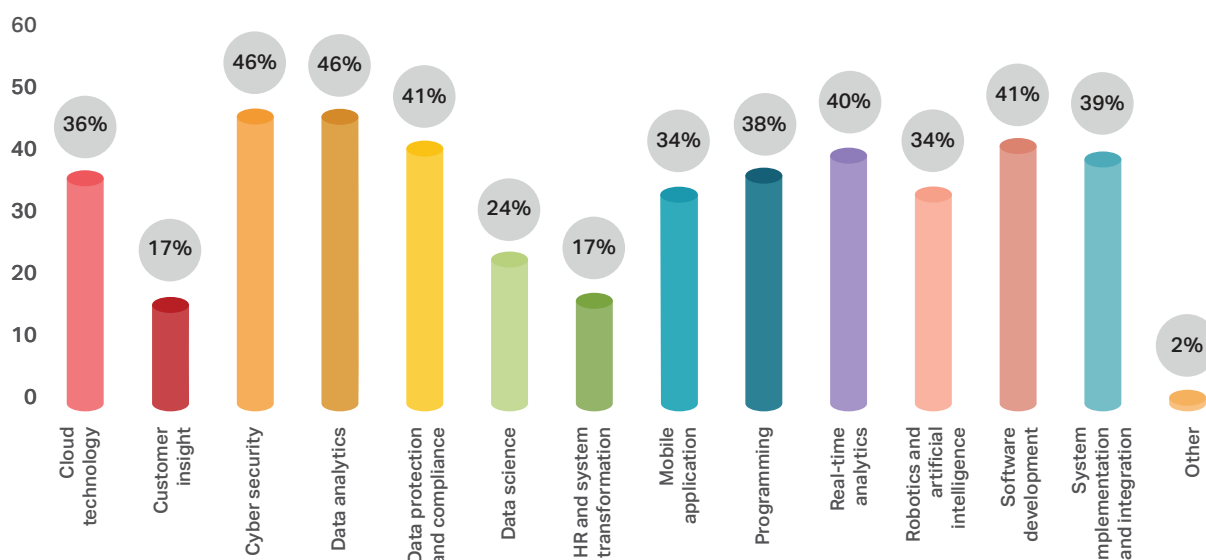
protection and compliance skills, followed by software development (chosen by 43 per cent of professionals and 41 per cent of hirers).

These skills represent a shift from the traditional engineering skillset to a far more purely-technological one, reflecting the need to implement smarter, more digital systems throughout the sector.

WHICH AREAS OF EXPERTISE WILL BE IN GREATER DEMAND AS A RESULT OF AUTOMATION AND DIGITALISATION? (professionals)



WHICH AREAS OF EXPERTISE WILL BE IN GREATER DEMAND AS A RESULT OF AUTOMATION AND DIGITALISATION? (hiring managers)





However, the skills most in demand are set to be cyber security ones. Fifty-two per cent of workers and 46 per cent of hirers flagged this as a key area of expertise as a result of digitalisation and automation.

“Power grids are critical infrastructure,” said Marx. “Professionals know that without power you’re back in the dark ages. They also know that as we digitalise, we become ever more vulnerable to hackers.

“Organised criminals, terrorists and even nation states now view cyber attacks on the power sector as an effective tactic. It’s an unprecedented threat, and one that renders security more important than ever before.”

Therefore, it’s not surprising that 48 per cent of professionals and 52 per cent of hirers identify the skills gap as the main challenge facing the sector. Power companies are taking steps to head off the threat though: 83 per cent of hirers reported plans to launch new training and development programmes to foster the necessary skills. Thirty-four per cent also plan to launch more graduate and apprenticeship programmes, and 28 per cent aim to partner with colleges and universities.

*“Power grids are critical infrastructure. Professionals know that without power you’re back in the dark ages. They also know that as we digitalise, we become ever more vulnerable to hackers.”
– Janette Marx*

7. ATTRACTING TALENT

A GENERATIONAL DIVIDE?

If the power sector is to fill the roles created by increasing digitalisation, it has a challenge on its hands. Only 50 per cent of hirers think the sector does a good job marketing itself to candidates. Professionals were slightly more pessimistic, with just 48 per cent agreeing.

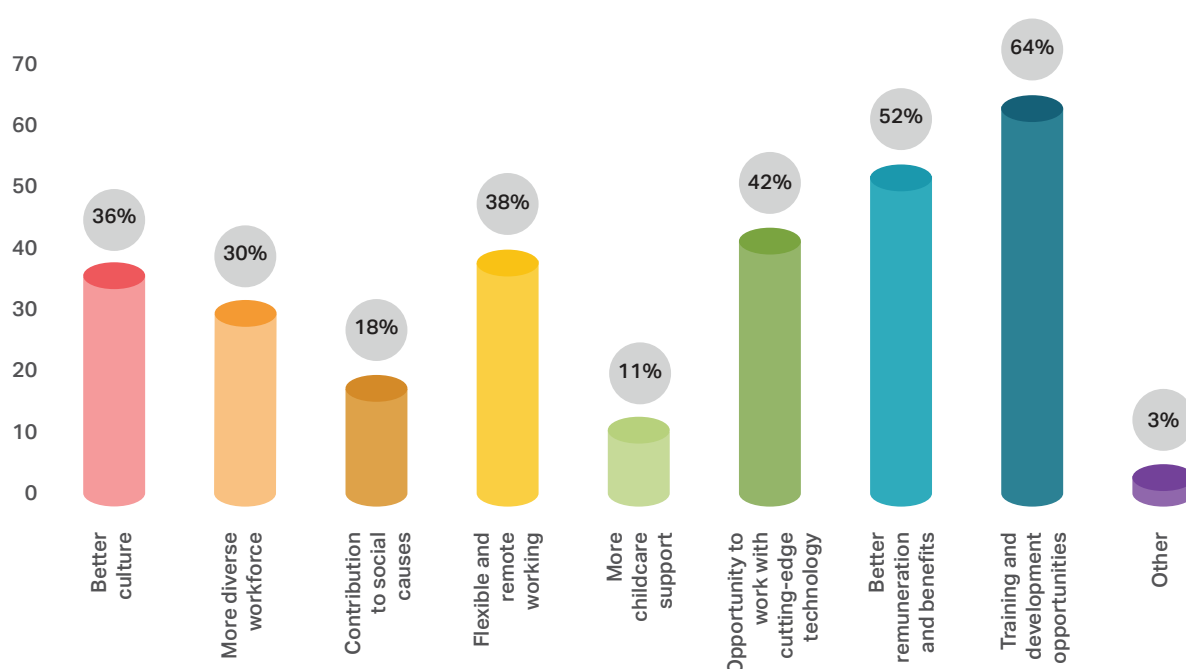
“The power sector could be doing more to attract new talent” said Marx. “With exciting technologies like smart grids and smart homes, and cyber security challenges in abundance, this is a sector with a lot to offer bright young talent.”

When asked what was needed to attract the best talent, professionals pointed to training and development (64 per cent), remuneration and benefits (52 per cent) and the chance to work with cutting-edge technology (42 per cent) as the key factors.

However, there is a sharp difference between older and younger professionals on this point. While pay and training were important across the spectrum, younger respondents were far more likely to value factors such as a diverse workforce, contribution to social causes and childcare support.

“The power sector could be doing more to attract new talent. With exciting technologies like smart grids and smart homes, and cyber security challenges in abundance, this is a sector with a lot to offer bright young talent.” – Janette Marx

WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (professionals)





Peet said: “It’s interesting to see that younger workers are looking for the power sector to make more of a social difference. Power is the lifeblood of society – we can’t live without it. This is being recognised with regards to cyber security, but what about natural disasters, for example?”

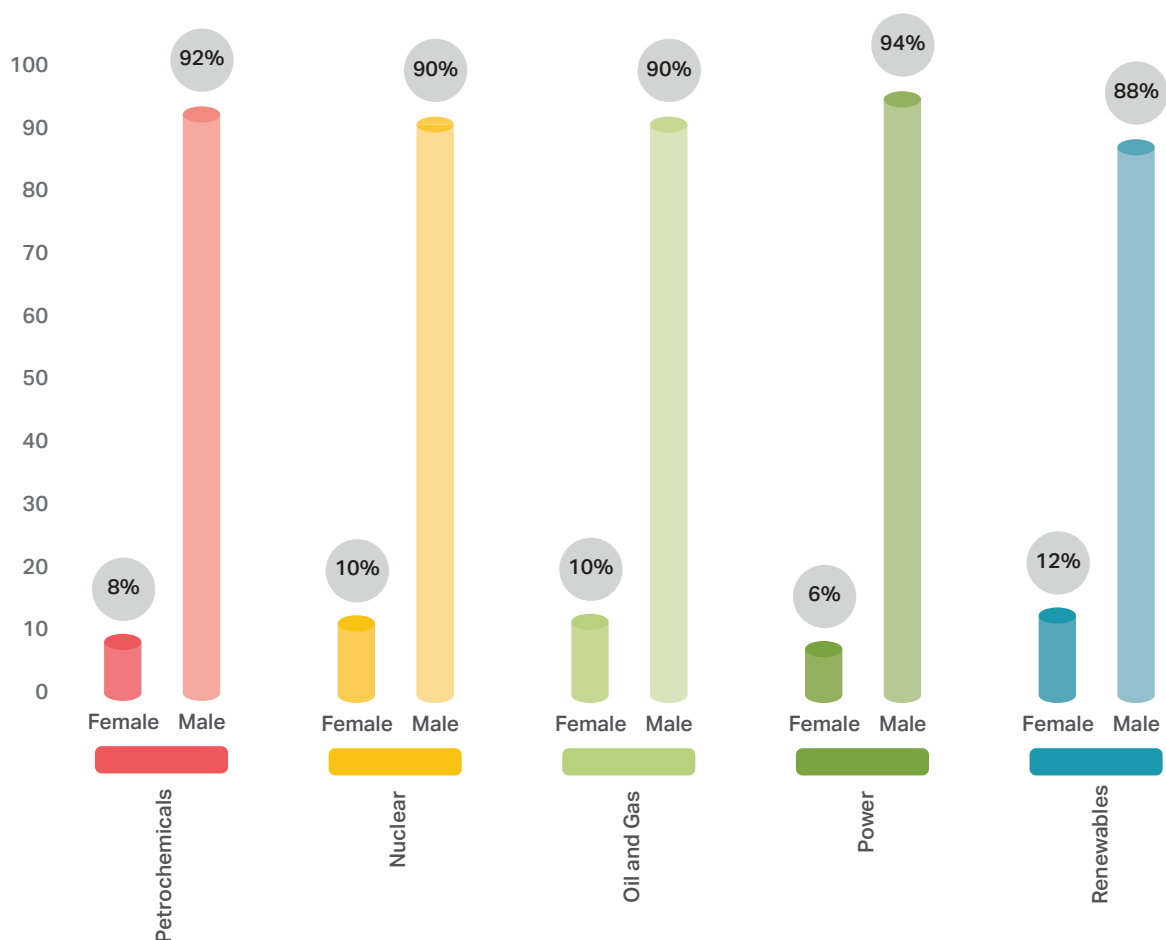
“Look at the sector’s response to the devastation in Puerto Rico after Hurricane Maria this year. By boosting society’s cyber and physical resilience, power professionals have a huge opportunity to make a difference.”

A similar split occurs between genders. Female professionals were much more likely to highlight diversity, contribution to social causes and childcare

support than their male colleagues. This is worth paying attention to: the power sector had the lowest proportion of female workers of any sector.

“Look at the sector’s response to the devastation in Puerto Rico after Hurricane Maria this year. By boosting society’s cyber and physical resilience, power professionals have a huge opportunity to make a difference.” – Hannah Peet

GENDER SPLITS (all sectors)



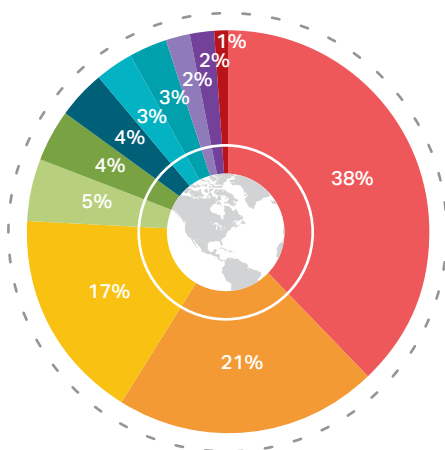
8. RETAINING TALENT IS THE GRASS GREENER?

Power professionals are the most likely of any sector to be happier than three years ago, the most likely to have seen a salary increase in the last 12 months, and the least likely to have seen a decrease. They are more optimistic about their salaries over the next year than anyone.

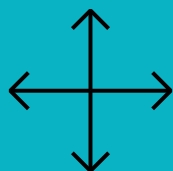
They are also the most likely to consider switching to another sector.

The most popular sector is renewables – as is the case across most sectors – with oil and gas in second. This is down to renewables’ reputation for the use of cutting-edge technology and innovation, and oil and gas’ opportunities for advancement and remuneration. However, it remains a conundrum that so many apparently “contented” professionals are open to moving sector.

WOULD YOU CONSIDER SWITCHING TO A ROLE IN ANOTHER SECTOR OVER THE NEXT THREE YEARS? (professionals)



- Aviation and aerospace
- Construction & property
- Defence
- IT and telecoms
- Mining
- Not at this time
- Nuclear
- Oil and gas
- Petrochemicals
- Rail and highways
- Renewable energy



Summary Power

“The power sector hasn’t suffered the cuts others have in recent years. Big projects and technological change have kept employment stable and given workers satisfying, well-rewarded jobs. Power professionals have every reason to remain optimistic. They have some of the most transferable skills in the industry and they know it,” said Marx.

To retain its key talent – especially the digitally-skilled professionals it increasingly needs – the power sector needs to make more of its successes and celebrate its achievements regarding happiness and salary.

However, it may also need to improve its diversity and address the gender imbalance to keep its younger professionals satisfied.



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Renewables

Contents: Renewables



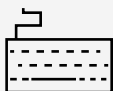
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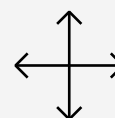
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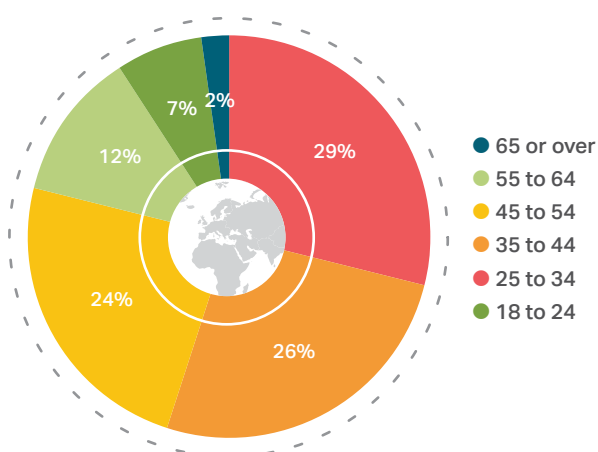


Renewables

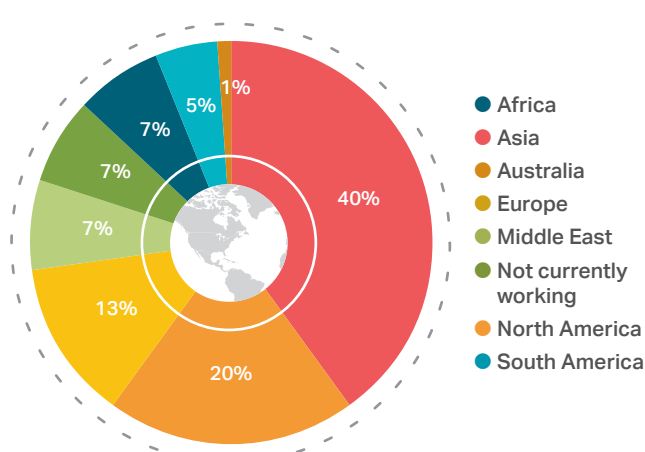
Renewables continues to be the 'it' sector for any candidate seeking more flexibility and the chance to work with leading technologies. However, its future may be less secure unless it raises pay and succeeds in winning the digital talent war.

1. DEMOGRAPHICS

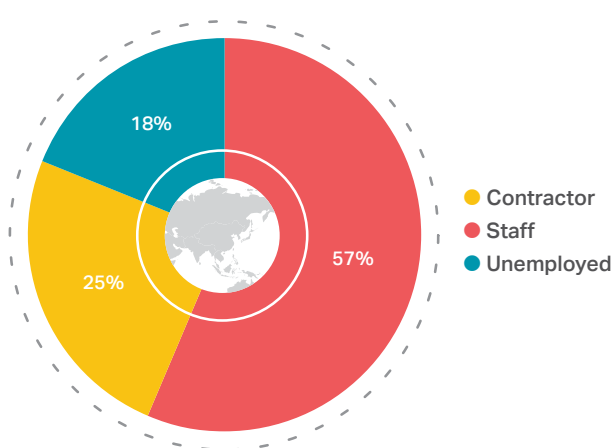
AGE



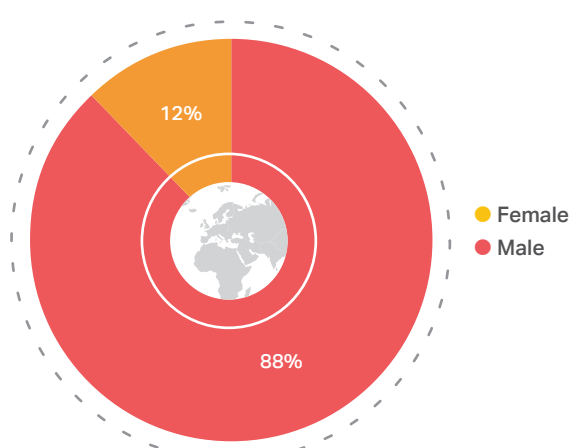
REGION



CONTRACT VS. PERMANENT



GENDER



2. SALARIES

Pay in the renewables sector is on the rise, albeit slowly. Forty-five per cent of professionals reported that their pay had risen in the last year – lower than in any other sectors except oil and gas. Another 45 per cent said that their compensation had remained the same.

The sector remains optimistic though. Twenty-eight per cent expect pay to rise by at least five per cent in 2018, a figure that outpaces every other sector except power.

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

	Africa	Asia	Australasia	Europe	Middle East	North America
Biomass Engineer	34,771	38,231	35,181	44,017	35,046	65,527
Business Development Manager	54,933	62,382	52,064	62,937	47,204	76,004
Civil/Structural Engineer	44,497	48,461	50,819	50,897	49,453	79,920
Commercial Manager	47,919	54,640	50,326	61,550	49,990	67,006
Construction Manager	60,991	69,343	68,671	73,969	63,870	113,220
Design Engineer	43,290	46,065	48,961	45,750	44,522	75,480
Electrical Engineer	41,847	45,597	50,278	49,951	45,726	83,250
Energy Engineer	37,524	45,199	44,336	48,095	39,470	53,920
HSE Manager	59,337	67,640	76,223	51,552	78,769	99,900
Maintenance Engineer	55,994	61,652	49,089	52,360	43,179	82,546
Marine Engineer	41,260	46,065	47,419	47,978	45,213	72,523
Mechanical Engineer	42,426	46,176	47,697	49,579	44,808	91,020
Operations Manager	40,577	44,524	47,709	45,826	40,204	75,504
Project Engineer	39,344	42,102	46,368	44,454	44,467	73,260
Project Manager	45,635	48,736	50,894	51,661	50,946	88,800
QA/QC Manager	45,621	50,946	50,910	54,192	50,360	72,150
Renewable Energy Consultant	36,186	40,171	41,004	43,081	37,566	52,196
Solar Engineer	38,469	43,323	43,846	45,109	41,033	69,930
Wind Farm Project Manager	50,721	57,258	69,987	51,197	60,322	77,700
Wind Turbine Technician	37,809	40,867	43,562	43,290	40,926	66,600

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

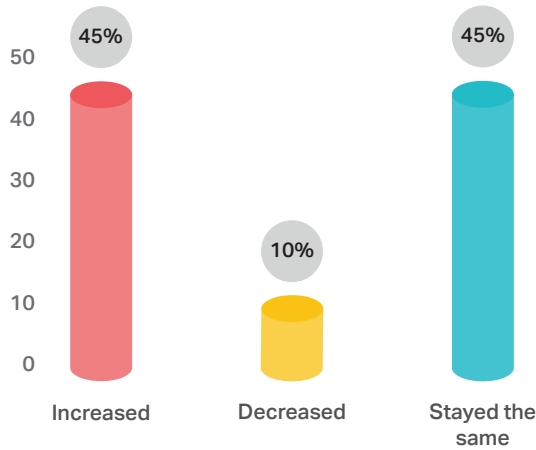
	Africa	Asia	Australasia	Europe	Middle East	North America
Biomass Engineer	256	293	280	324	232	320
Business Development Manager	533	549	524	637	427	597
Civil/Structural Engineer	355	422	444	549	483	505
Commercial Manager	492	611	500	694	561	707
Construction Manager	444	516	483	660	533	622
Design Engineer	316	441	389	416	444	461
Electrical Engineer	244	350	327	605	366	472
Energy Engineer	250	350	333	355	272	316
HSE Manager	461	564	505	633	483	574
Maintenance Engineer	366	505	474	577	400	544
Marine Engineer	355	372	428	640	441	472
Mechanical Engineer	466	472	488	660	433	599
Operations Manager	416	468	433	547	500	543
Project Engineer	472	522	488	699	527	613
Project Manager	444	533	526	749	555	638
QA/QC Manager	466	522	444	655	553	606
Renewable Energy Consultant	314	444	411	427	393	440
Solar Engineer	394	555	524	511	496	559
Wind Farm Project Manager	528	572	583	695	549	607
Wind Turbine Technician	350	500	474	438	316	483

In total, 64 per cent of workers anticipate an increase in compensation over the next year.

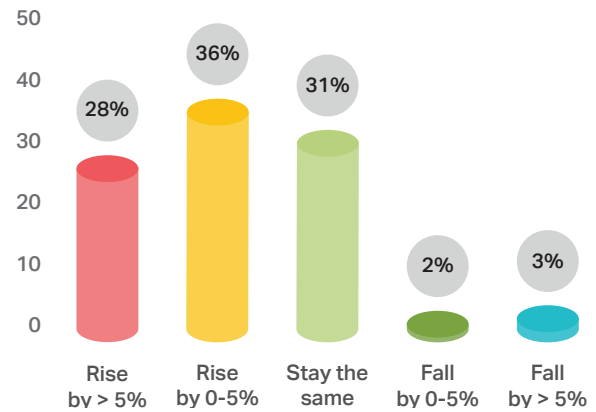
Though it still trails rival sectors for both salaries and day rates, higher pay will likely boost the attractiveness of renewables among professionals across the energy industry. For some, the drawback of taking a cut in compensation has so far outweighed the unique opportunities found in renewables.

“The more that other sectors embrace digitalisation, the more competitive they’ll be with renewables in attracting energy professionals. Especially since professionals looking to join the renewables sector rarely do so for reasons of remuneration. Yet by closing the pay gap, the renewables sector will widen its advantage,” said Janette Marx, Chief Operating Officer of Airswift.

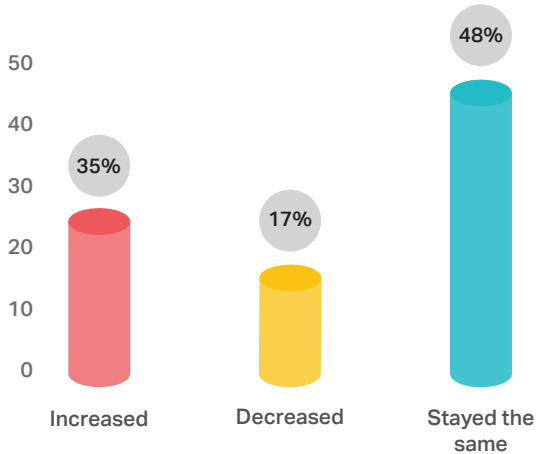
PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(professionals)



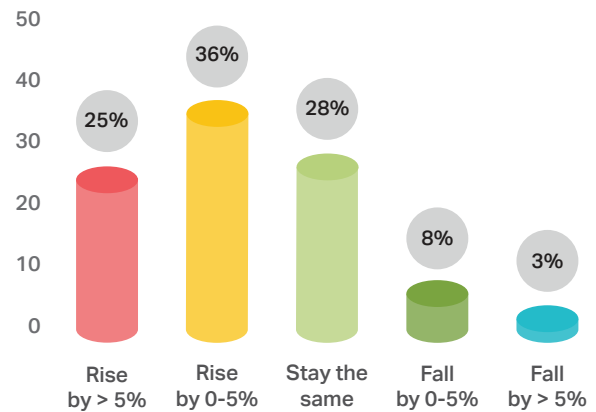
PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS
(professionals)



PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(hiring managers)



PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS
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Yet by closing the pay gap, the renewables sector will widen its advantage.” – Janette Marx

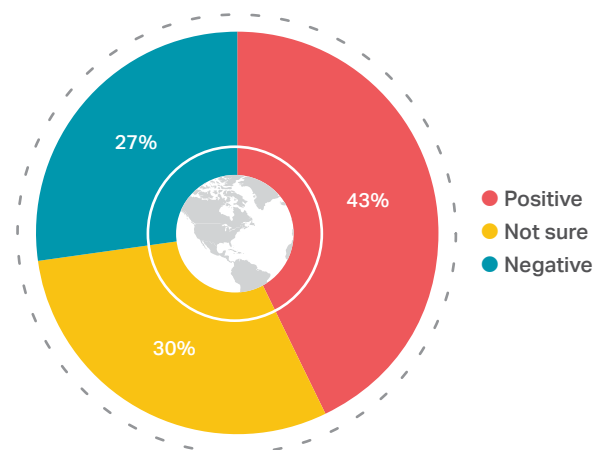


3. HAPPINESS

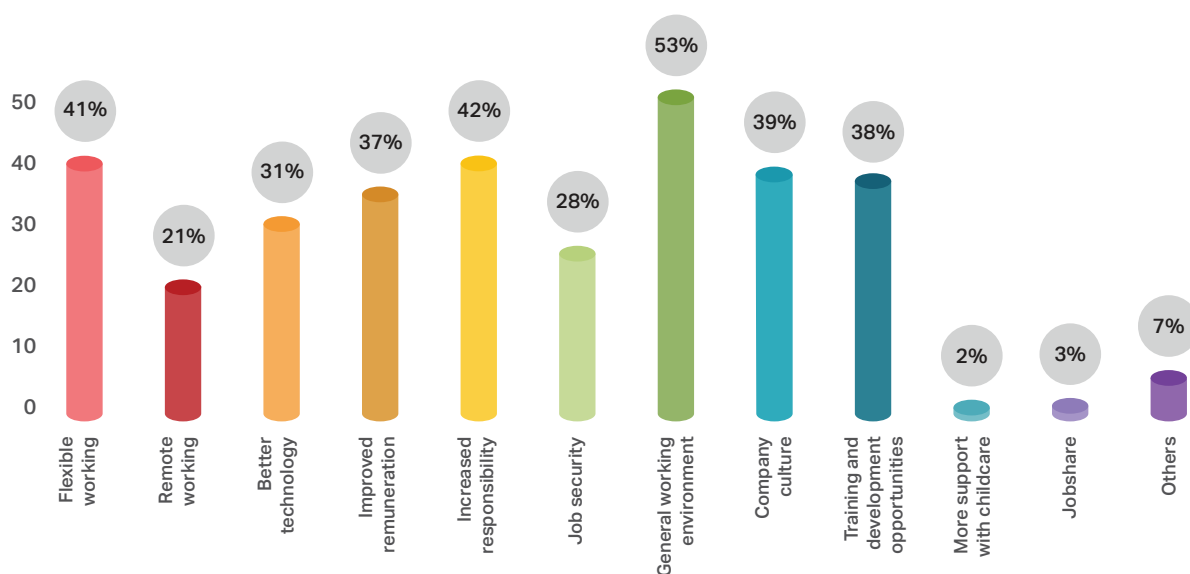
Comparatively modest remuneration hasn't stopped workers in renewables from finding contentment, with a number of professionals reporting improved happiness over the past three years. Employees are among the happiest in the energy industry.

The sources of happiness come primarily from the sector's embrace of digitalisation: better technology, flexible working and remote working all played a part in ensuring contentment. Many companies can boast of having the relaxed office culture often found in Silicon Valley.

ARE YOU HAPPIER OR LESS HAPPY? (professionals)



WHY ARE YOU HAPPIER? (professionals)



"Digitalisation facilitates a lot of the exciting opportunities and work-life balance that professionals are looking for. As sectors fight for talent, happiness is going to factor more strongly," said Marx.

Forty-three per cent of renewables workers said that their work lives were happier compared to three years ago. Only the power sector recorded a higher level of increased contentment. Forty-nine per cent of contractors were happier, slightly more than full-time staff at 45 per cent.

Additionally, just 30 per cent reported being less happy, the lowest rate across the industry. Twenty-seven per cent said their level of happiness hadn't changed.

More telling, however, are the views of hiring managers. Forty-seven per cent said that individuals were less happy, well below the 60+ per cent rates recorded in other sectors.

4. DIGITALISATION

With innovation rooted in the DNA of renewables companies, it's no surprise that the sector is well ahead in embracing digitalisation.

For starters, no other sector offers the same level of flexible and remote working opportunities. Forty-eight per cent of employees reported this as a key benefit of automation and digitalisation, the highest figure across the industry.

Providing these opportunities will be essential as companies compete for younger talent. Employees between the ages of 25 to 34 said that flexible working was one of the top reasons why they were happy in their current roles.

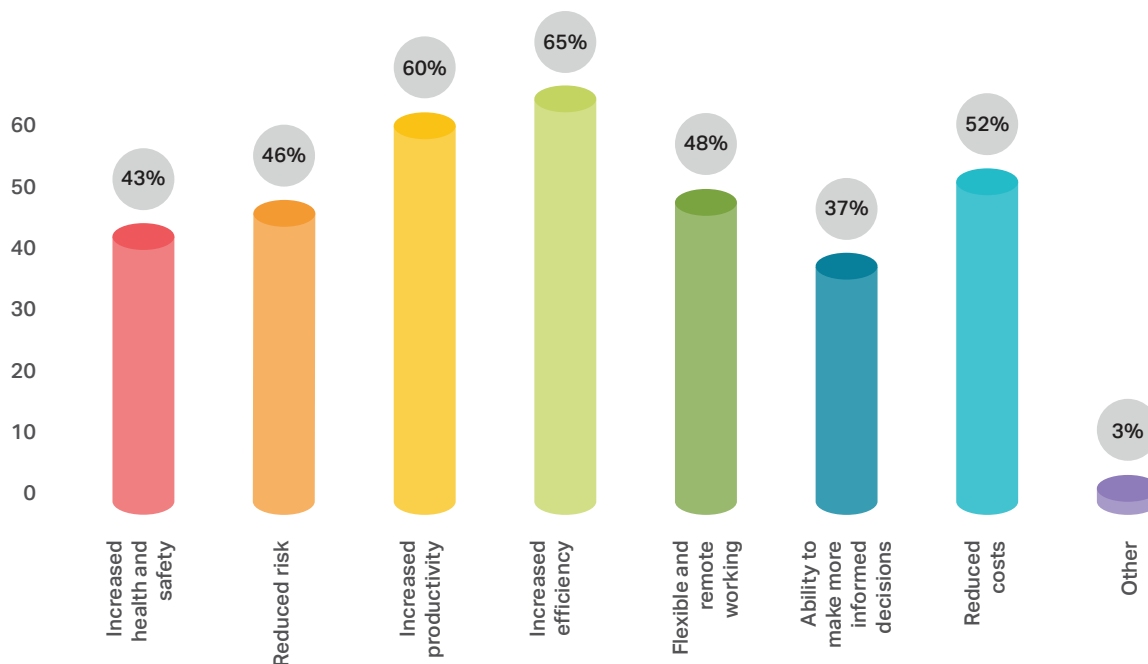
"Renewables has a real need for technologists. To be able to attract talent, they have to provide the same level of flexible working that a candidate might find with a technology firm," said Hannah Peet, Managing Director at Energy Jobline.

The benefits of digitalisation go beyond changes to working practices. While acknowledging the importance of flexible working, hiring managers emphasised the role of technology in increasing efficiency and productivity.

"All the attention may be on the tech start-up culture, but renewables companies are really seeing the benefits from automation and big data in enhancing operational performance," said Janette Marx.

Cost savings are a testament to this. More than half of workers and hiring managers saw reduced costs as a key benefit of digitalisation, the highest total across any sector.

WHICH OF THESE BENEFITS DO AUTOMATION AND DIGITALISATION BRING TO YOUR SECTOR?





All in all, most people remain enthusiastic about the prospects of digitalisation. Seventy-nine per cent of workers said that digitalisation is a positive development.

Even in a technologically-driven area like renewables, some concerns persist over the potential for digitalisation to hamper working life.

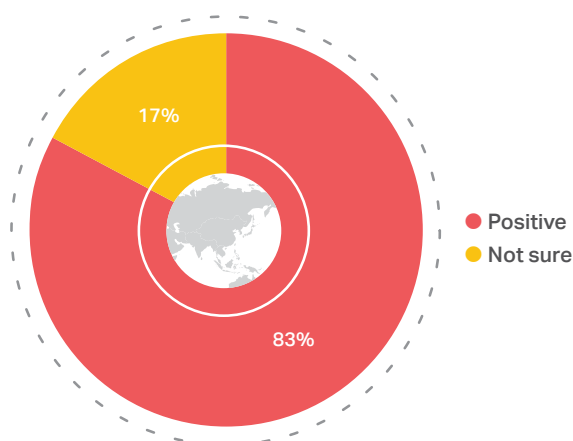
Many professionals believe that it could reduce the importance of human judgment. Others see it as a threat to working culture. Renewables workers were more likely than peers in other sectors to say that digitalisation could lead to an 'always-on' culture and hurt job satisfaction.

"All the attention may be on the tech start-up culture, but renewables companies are really seeing the benefits from automation and big data in enhancing operational performance." – Janette Marx.

5. GLOBAL MOBILITY

Workers in renewables are very open to relocating for career advancement. Eighty-three per cent said they would consider moving to another region, namely to work on exciting projects.

WOULD YOU BE WILLING TO RELOCATE TO ANOTHER REGION FOR WORK?



Europe was the preferred destination for workers in this sector. Forty-three per cent said they would be open to a move to the continent, double the amount recorded for the next popular location, North America.

This makes sense considering the advanced state of renewables in Europe. Whether through mature companies or newer start-ups pursuing disruptive approaches, Europe provides many avenues for advancement.

As demand for young talent heats up, relocation opportunities may provide an edge. Ninety-five per cent of workers between the ages 18 and 24 said they would consider a move abroad. The reason? A desire for unique and diverse working opportunities – 46 per cent of these individuals cited this as a leading motivator for a move, a much higher rate than their older peers.

“Younger talent will chase after the chance to work with cutting-edge technologies that utilise machine learning and AI,” said Janette Marx.

“However, renewables companies should outwardly communicate the availability of these opportunities.”

As with other sectors, a mismatch between interest and opportunities persists. Only half (51 per cent) of workers said their employers offer cross-regional job transfers.

“Younger talent will chase after the chance to work with cutting-edge technologies that utilise machine learning and AI. However, renewables companies should outwardly communicate the availability of these opportunities.” – Janette Marx



6. SKILLS

A DEMAND FOR TECHNOLOGISTS

As projects grow more sophisticated, so does demand for pure technologists.

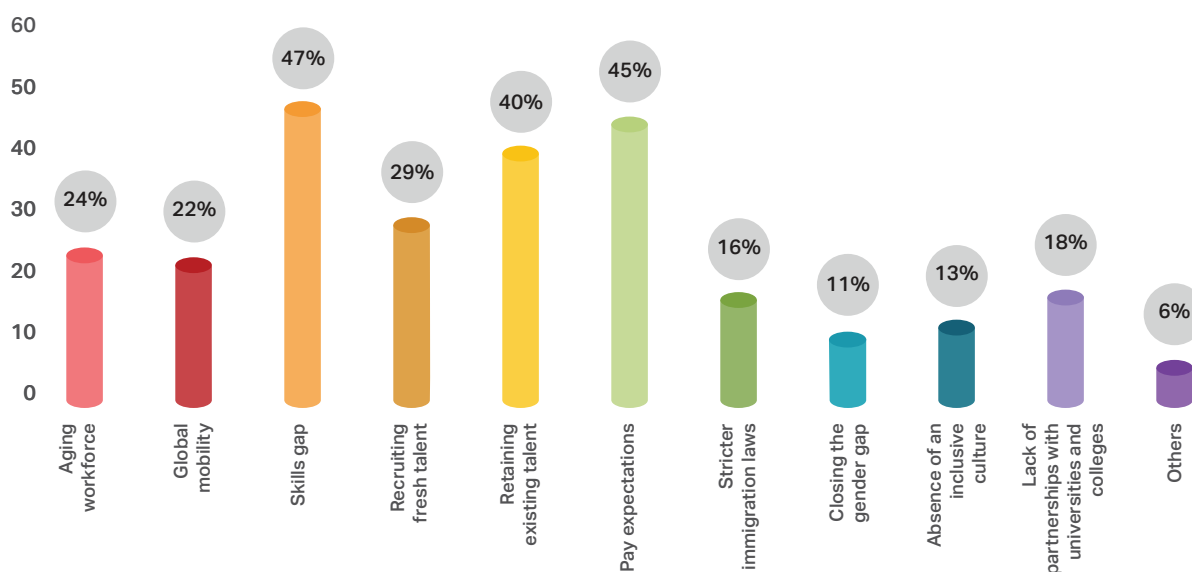
Developers and coders are especially desirable, as renewables firms' analytics and data science requirements become more advanced. However, these skill sets aren't traditionally abundant in energy.

Luckily, the sector is making headway on staking out technological talent. Thirty-five per cent of hiring managers said their organisations were partnering with universities to attract more people with the necessary skills. That said, renewables companies have some way to go to match the perceived sophistication of their Silicon Valley peers.

According to Peet: "Renewables companies are marketing to coders and developers as if they were already interested in energy. No one is doing the sophisticated sort of interviews that tech disrupters are known for, such as cognitive challenges. More has to be done to highlight the inventiveness of the sector."

Both workers and hirers agree strongly that finding talent and keeping people happy are among the top workforce challenges over the next three years.

WHAT ARE THE BIGGEST WORKFORCE CHALLENGES FACING THE SECTOR?





Yet while skills may be in short supply, the proliferation of young talent should offer comfort. Respondents were far less concerned about the impact of an aging workforce than those in other sectors.

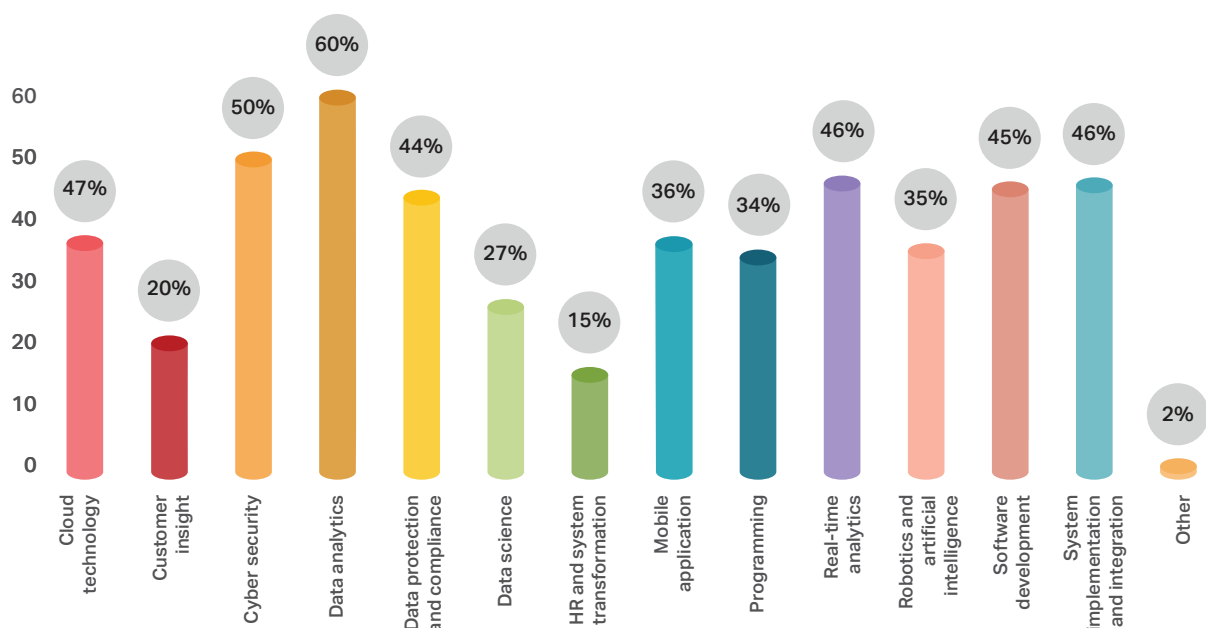
In addition to data analytics and software development, cloud technology ranked high on the list of skills that digitalisation will create need for. Cloud capabilities were far more of a priority for renewables companies than any other sector.

As new technologies spread to operations, the need for talent from within the energy sector increases. Ultimately, technologists and operators will work side-by-side as the next generation of digitalisation takes hold.

“With digitalisation, a wider variety of opportunities will open up to individuals already working in the sector. Though technology skills are in demand, renewables companies still need professionals with energy expertise to interpret and action the insight it produces. There will always be a need for operational skills,” said Peet.

“With digitalisation, a wider variety of opportunities will open up to individuals already working in the sector. Though technology skills are in demand, renewables companies still need professionals with energy expertise to interpret and action the insight it produces. There will always be a need for operational skills.” – Hannah Peet

WHICH AREAS OF EXPERTISE WILL BE IN GREATER DEMAND AS A RESULT OF AUTOMATION? (hiring managers)





7. ATTRACTING TALENT

TRAINING, TRAINING, TRAINING

Whether it's because of culture or technology, the renewables sector has a far easier time of attracting talent than others in energy.

"For anyone intrigued by digitalisation, renewables already offers appealing opportunities. The sector is easily the most popular option for anyone in energy considering a move," said Peet.

Workers absolutely agree. More than half believe that their sector does a good job marketing itself to potential candidates – making renewables the only sector to break the 50 per cent mark.

Career progression is the main reason why energy professionals would consider a move to renewables. Demonstrating how skills from other sectors transfer over may help companies unlock a deeper pool of talent.

"Today there is less differentiation between renewables and other energy sectors. Skills are interchangeable. Through good training, renewables companies can better help individuals from other sectors make the leap," said Peet.

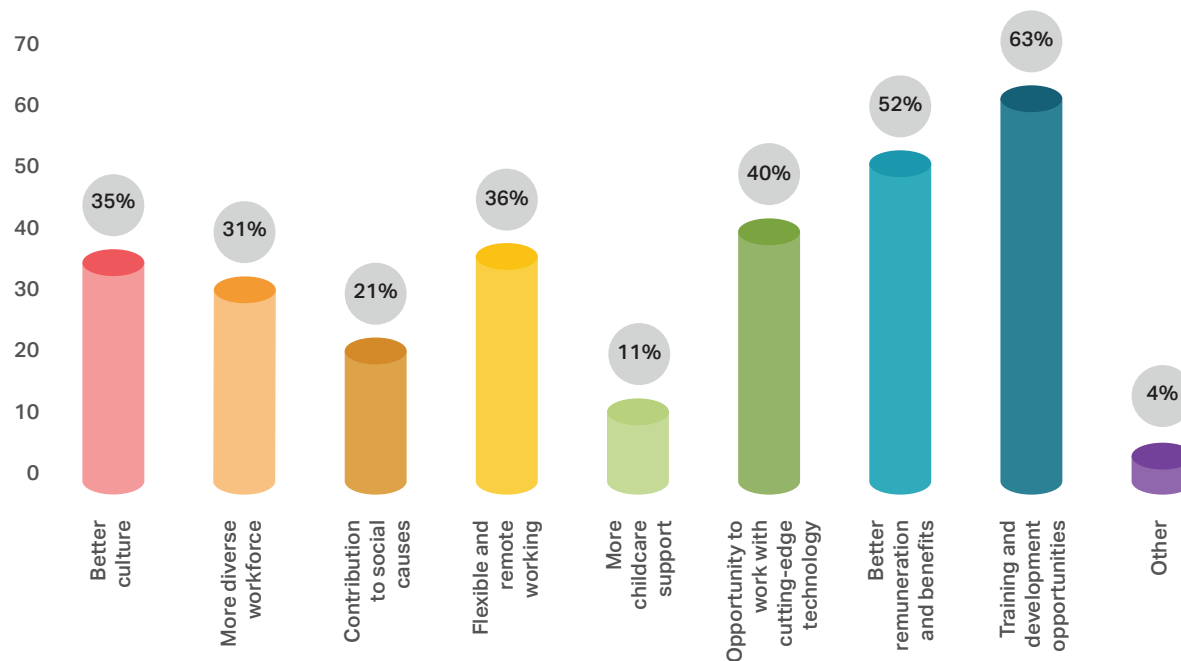
Renewables companies are rising to the occasion. Three-quarters (77 per cent) of hiring managers reported that they were leaning on new training programmes to enhance skill sets – a fact that is particularly encouraging given that last year's GETI uncovered a lack of training as a key contributing factor to the sector's skills gap.

"Right now, the renewables sector is probably doing more than any other to mobilise and train candidates from across the energy industry," said Marx. "Renewables companies have a lot of developmental opportunities to offer."

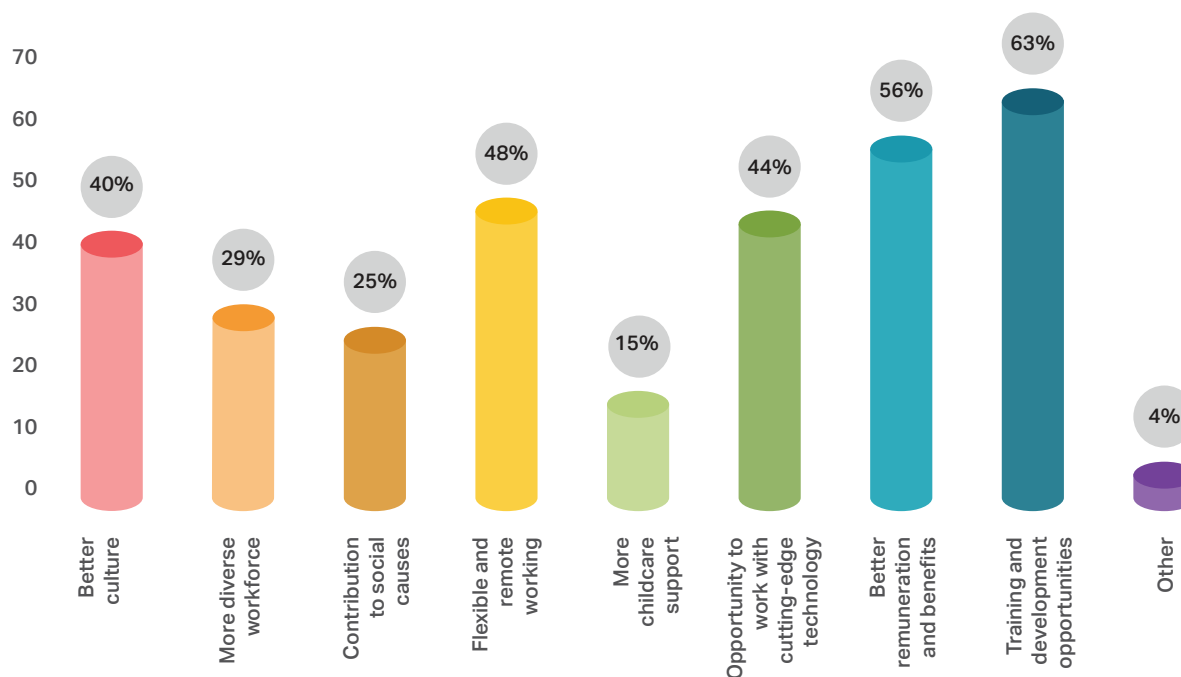
Alongside training, younger workers crave the opportunity to work with cutting-edge technology. Seventy per cent of respondents between the ages of 18 and 24 said this was important for attracting the best candidates, a rate surpassed only by those nearing the ends of their careers.

"Today there is less differentiation between renewables and other energy sectors. Skills are interchangeable. Through good training, renewables companies can better help individuals from other sectors make the leap." – Hannah Peet

WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (professionals)



WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (hiring managers)



Both professionals and hiring managers said that enhanced training and better pay are needed to secure talent. With renewables companies making progress on both fronts, the sector is taking the necessary steps to ensure the candidates keep coming.

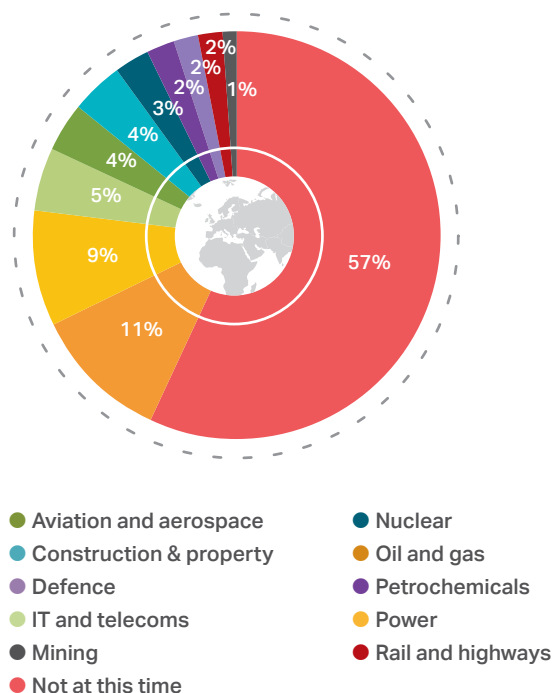


8. RETAINING TALENT

MORE PAY, A CLEAR FUTURE AND DIVERSITY

Even the renewables sector is not free from roving eyes. Forty-three per cent of workers said they would consider moving to another sector or leaving the industry.

WOULD YOU CONSIDER SWITCHING TO A ROLE IN ANOTHER SECTOR OVER THE NEXT THREE YEARS? (professionals)



The most popular sector is oil and gas – perhaps because it has made notable strides in digitalisation. Opportunities to work with analytics, big data and automation are growing – and training is rapidly improving.

For those workers who are seeking higher remuneration, these opportunities in oil and gas may prove tempting.

“If more sectors adopt flexible working policies and take on innovative projects, renewables companies are going to have a harder time making their case to candidates,” said Peet.

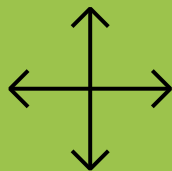
For most individuals, advancement is more important than pay. Fifty-five per cent of respondents considering a move said that they were intrigued by the opportunity for career progression elsewhere.

“Renewables companies need to keep their employees intrigued. Professionals can easily jump to defense or aerospace to work with AI and robotics. The sector has to maintain its advancements in digitalisation and ensure people play a part,” said Marx.

Flexible and remote working can be vital in fostering the diverse workforce that many existing workers want. Even in a sector considered to be relatively progressive, a notable gender gap persists. Nearly a quarter of women surveyed said the gender gap was a major challenge for the sector, more than double the rate of male respondents.

As Peet noted, “Expanding flexible working opportunities sends a message that companies are truly committed to providing a better work-life balance for parents and others.”

“Renewables companies need to keep their employees intrigued. Professionals can easily jump to defence or aerospace to work with AI and robotics. The sector has to maintain its advancements in digitalisation and ensure people play a part.” – Janette Marx

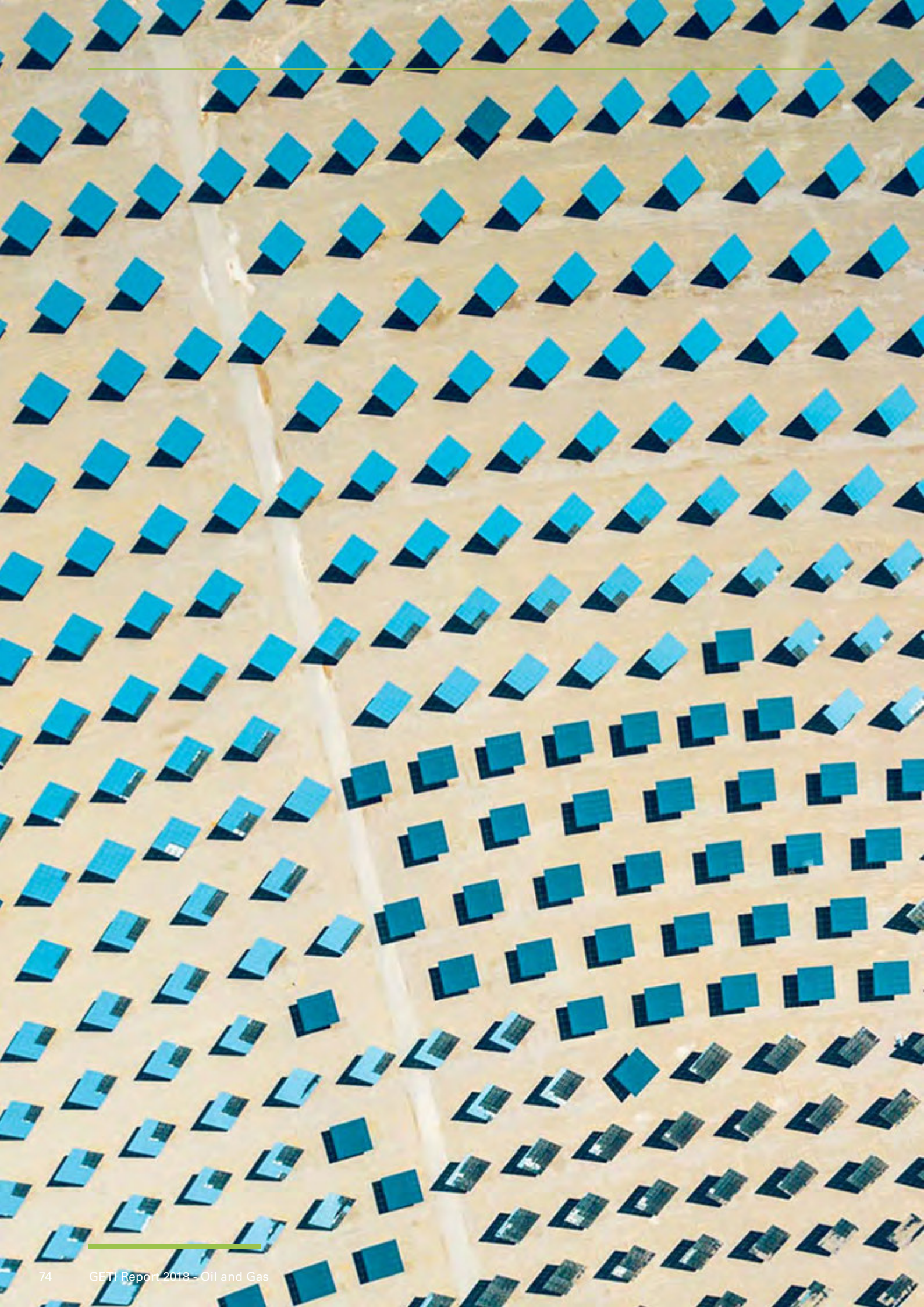


Summary Renewables

The renewables sector continues to lead the pack in terms of attractiveness – but it may have to start looking over its shoulder. As the battle for talent heats up, companies need to be aware of where other sectors are catching up in terms of technology, flexibility and opportunity.

“When it comes to securing talent, no one is doing it better. Renewables companies just need to stay the course, but also think about what their workers will want in 12-18 months’ time,” said Marx.







GETI
Global Energy Talent Index



energyjobline

Nuclear



Contents: Nuclear



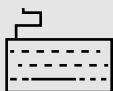
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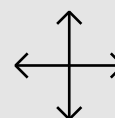
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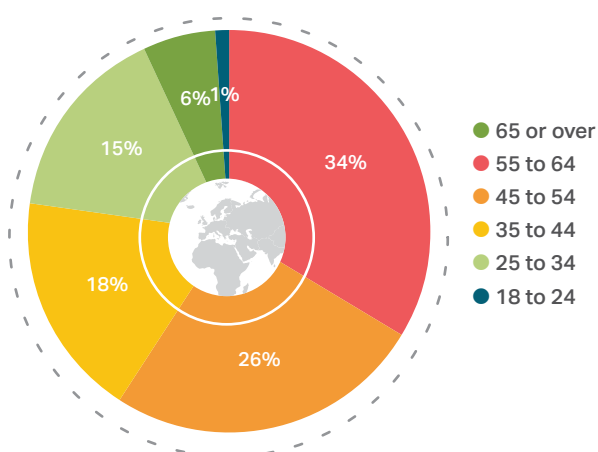


Nuclear

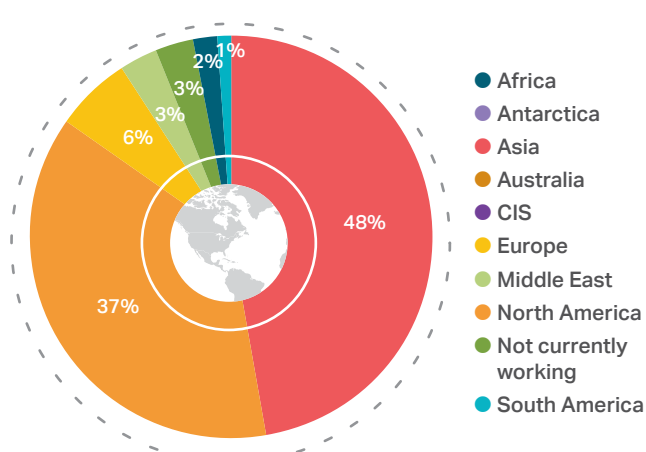
With an ageing workforce, the nuclear sector is facing a major skills shortage. Overcoming this will require a reshaping of the sector's image – and a new mindset towards where talent is sourced from.

1. DEMOGRAPHICS

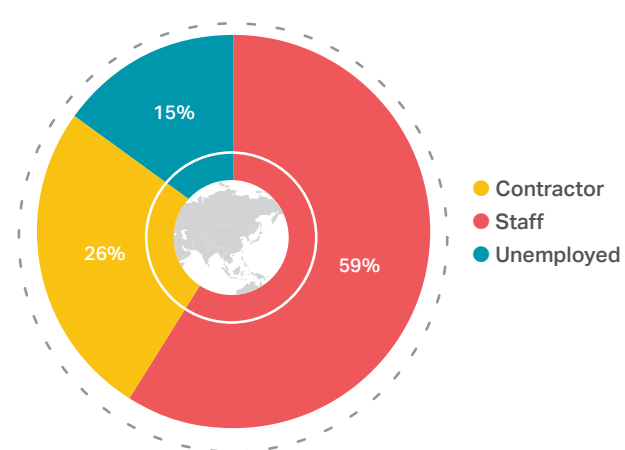
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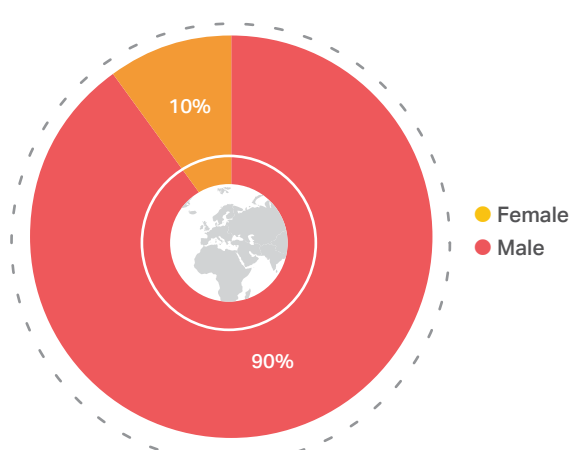
REGION



CONTRACT VS. PERMANENT



GENDER



2. SALARIES

In terms of remuneration, nuclear sits right in the middle of the energy industry. Being one of the most stable sectors however, salaries and rates have crept consistently upwards.

Nearly half of workers reported that their pay had risen over the last 12 months. Only nine per cent said that pay had decreased in that period.

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

	Africa	Asia	Australasia	Europe	Middle East	North America
Business Development Manager	51,536	79,254	65,700	63,245	68,230	90,000
Chemical Engineer	53,009	60,022	49,967	62,258	53,221	95,000
Commercial Manager	46,995	72,300	51,944	66,473	63,749	80,500
Commissioning Manager	37,859	62,210	52,849	58,376	50,271	88,000
Construction Manager	61,571	71,967	52,080	62,876	91,885	115,000
Electrical Engineer	60,521	72,213	60,581	55,487	79,561	102,000
Environmental Engineer	37,237	66,529	63,129	64,414	60,970	91,000
Facilities Manager	38,768	51,155	63,529	53,240	56,350	66,000
HSE Manager	44,150	78,374	53,812	58,486	78,050	82,225
Maintenance Engineer	41,700	65,326	57,228	62,257	60,297	90,000
Mechanical Engineer	75,465	70,458	52,179	55,111	72,114	95,000
Nuclear Engineer	39,918	81,326	49,316	47,650	42,152	106,000
Planner/Scheduler	31,200	63,174	53,673	56,869	56,789	83,000
Process Engineer	50,375	56,776	47,738	66,395	52,335	102,000
Project Manager	62,284	81,500	55,153	67,410	77,226	90,000
Purchasing Manager/Buyer	30,695	55,443	62,187	60,081	52,272	77,000
QA/QC Manager	39,664	51,480	53,254	60,020	55,036	75,000
R&D Scientist	34,650	68,076	45,673	66,942	41,500	83,000
Supply Chain Manager	31,554	45,536	50,919	52,395	48,170	70,000
Training Coordinator	35,528	45,020	73,295	63,022	46,314	60,000

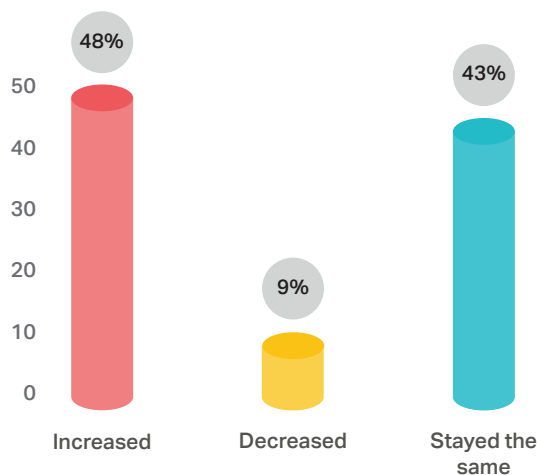
CONTRACT WORKER DAY RATE, USD (GLOBAL AVERAGE BASED ON SIX YEARS' EXPERIENCE)

	Africa	Asia	Australasia	Europe	Middle East	North America
Business Development Manager	417	525	485	523	447	566
Chemical Engineer	345	366	358	420	385	410
Commercial Manager	440	470	465	510	490	548
Commissioning Manager	425	493	515	625	500	720
Construction Manager	450	530	522	633	545	665
Electrical Engineer	488	473	435	490	517	575
Environmental Engineer	255	399	363	340	270	360
Facilities Manager	380	467	450	535	395	520
HSE Manager	425	520	485	545	430	460
Maintenance Engineer	389	485	470	525	404	475
Mechanical Engineer	310	340	355	495	375	595
Nuclear Engineer	333	366	380	456	415	480
Planner/Scheduler	380	415	405	513	422	523
Process Engineer	365	420	415	580	540	590
Project Manager	370	425	417	546	405	530
Purchasing Manager/Buyer	415	478	450	617	530	569
QA/QC Manager	402	468	440	525	452	625
R&D Scientist	410	444	396	470	420	515
Supply Chain Manager	260	410	385	527	355	450
Training Coordinator	235	360	330	382	328	335

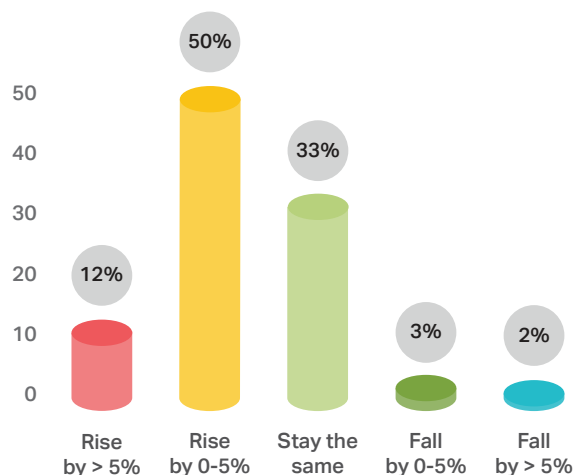
Most workers expect an increase over the next year, albeit a modest one. Only 12 per cent of respondents anticipate a rise in compensation by over five per cent, a figure far below that of any other sector.

“Nuclear is shielded from the economic rumblings that create turmoil in the likes of oil and gas. Its stability means pay tends to remain consistent, not rising or falling at sharp rates,” said Hannah Peet, Managing Director at Energy Jobline.

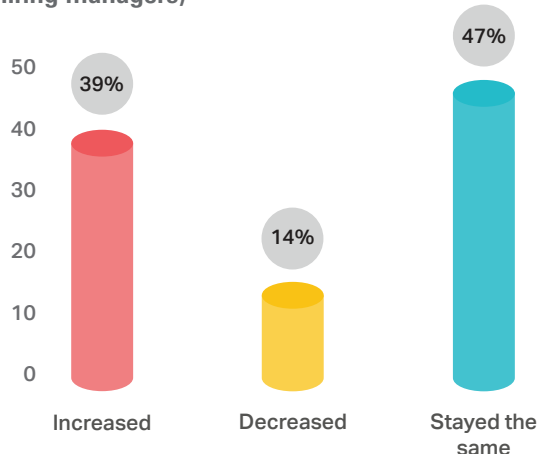
PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(professionals)



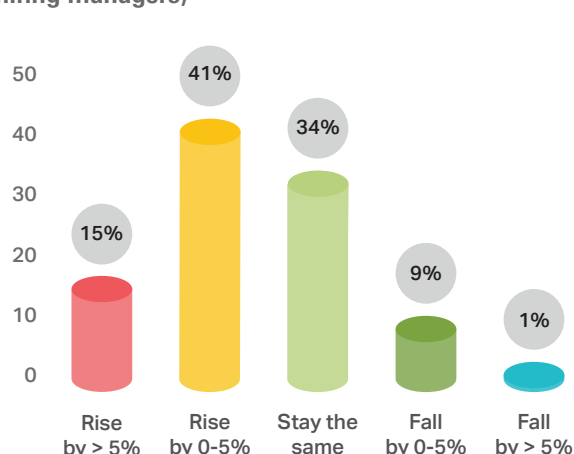
PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS
(professionals)



PAY CHANGES AMONG WORKERS IN THE LAST 12 MONTHS
(hiring managers)



PAY EXPECTATIONS AMONG WORKERS IN THE NEXT 12 MONTHS
(hiring managers)



“Nuclear is shielded from the economic rumblings that create turmoil in the likes of oil and gas. Its stability means pay tends to remain consistent, not rising or falling at sharp rates.” – Hannah Peet



3. HAPPINESS

When it comes to contentment, nuclear workers are lukewarm. Compared to other sectors, they aren't as fired up about pay or career progression, nor are they as worried about job security.

The figures confirm this. Thirty-six per cent of workers said they were happier than they were three years ago, a figure that ranks right in the middle of all sectors. Forty per cent said they were less happy.

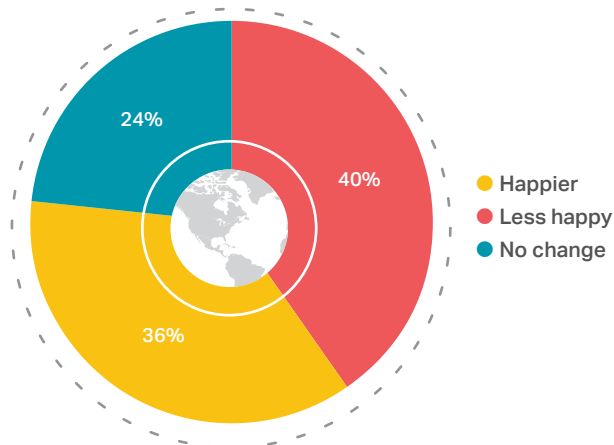
Perhaps surprisingly, young people were very content. Sixty-three per cent of workers aged 25 to 34 were happier, which respondents attributed to more money and opportunities for flexible working.

For nuclear workers of all ages, the impact of remote working opportunities on contentment was almost as high as it was for renewables professionals.

Hiring managers might be pleasantly surprised by these findings. Just 12 per cent felt that workers were happier. Sixty-seven per cent said that workers were less happy.

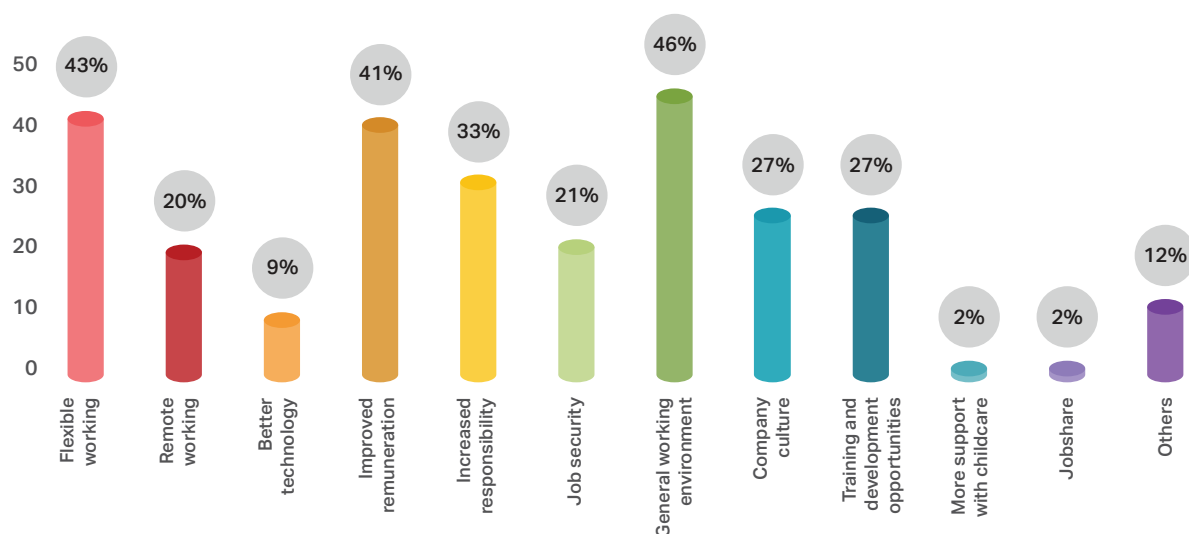
Job-related stress and company culture were two things that played a bigger role in dissatisfaction among nuclear professionals than they did among other sectors.

ARE YOU HAPPIER OR LESS HAPPY? (professionals)



"The nuclear industry is known for its long tenures. While some outsiders might equate this with staleness, it certainly means that, despite some stresses, people inside are content with the way things are," said Peet.

WHY ARE YOU HAPPIER? (professionals)



4. DIGITALISATION

Nuclear companies have some of the most technologically advanced projects in the energy industry. Yet, perceptions of digitalisation are somewhat skewed.

“Younger consumers frown upon nuclear as an outdated industry. Because of this, many people are quick to believe that the technology is outdated, said Janette Marx, Chief Operating Officer at Airswift. “Looking at advances like small nuclear reactors, that couldn’t be further from the truth.”

There does seem to be some reticence to embrace digital technologies. Nuclear workers were the least likely to say that digitalisation was a positive development (75 per cent) and the most likely to be unsure of its impact (18 per cent).

While young outsiders may be sceptical of nuclear, the situation inside the sector couldn’t be more different. As mentioned earlier, workers aged 25-34 were very enthusiastic. This attitude extends to digitalisation, with 87 per cent saying that digitalisation and automation were positive developments for the sector.

“For years, the nuclear industry has excelled at combining skilled individuals with cutting-edge technology to generate some exciting projects,” said Marx. “Digitalisation adds to the precise knowledge set that nuclear workers possess and helps them do their job better.”

Automation may be advantageous for one of the biggest problems facing the sector: an ageing workforce. Professionals and hiring managers are far more concerned about skills shortages than any other sector.

“The ageing workforce could spell trouble for nuclear businesses if they fail to recruit enough new entrants to cover all the work that needs doing. Automating operational processes can help provide coverage in areas where human oversight or knowledge isn’t as critical,” said Peet.

*“Younger consumers frown upon nuclear as an outdated industry. Because of this, many people are quick to believe that the technology is outdated. Looking at advances like small nuclear reactors, that couldn’t be further from the truth.”
– Janette Marx*

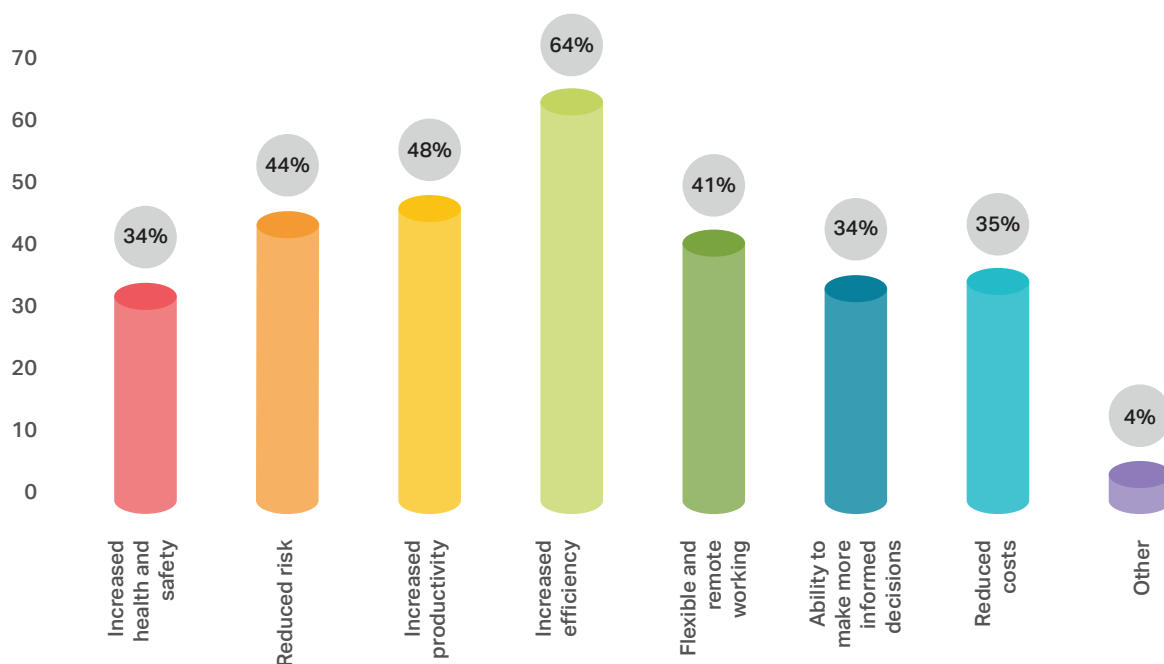


That said, hiring managers need to be cognisant of the operational benefits. Nuclear hiring managers were much less likely to view increased productivity (44 per cent) and efficiency (51 per cent) and reduced costs (41 per cent) as benefits of digitalisation than their peers across the energy industry.

“Some nuclear facilities, especially in the US, are coming under financial strain. Reducing costs will become even more crucial for companies. More managers need to embrace the operational upsides of automation,” said Marx.

In slight contrast to hiring managers, professionals rated efficiency and productivity as the top benefits of automation and digitalisation. Flexible and remote working also ranked highly.

WHICH OF THESE BENEFITS DO AUTOMATION AND DIGITALISATION BRING TO YOUR SECTOR? (professionals)



5. GLOBAL MOBILITY

While nuclear companies think global, they tend to stay local when it comes to seeking talent. Likewise, workers are less inclined to seek opportunities afar.

The relatively older age of the average nuclear worker plays a part. Most workers have been in the industry for decades – indeed, 65 per cent of nuclear respondents to this survey were above the age of 45. These individuals are well-rooted and often unwilling to move their families.

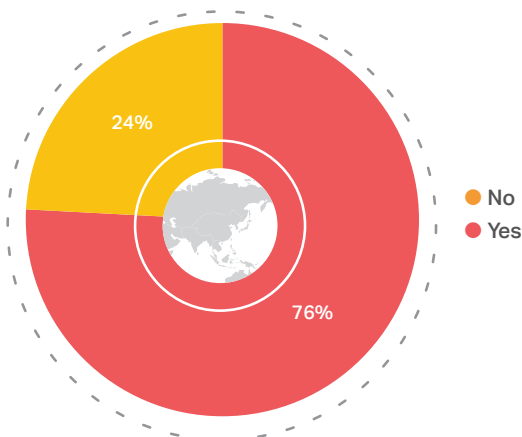
Thus, it's no surprise that nuclear workers were the least likely among those in the energy industry to consider relocation to a different region. Only 76 per cent of respondents would contemplate a move, about ten per cent below the industry average.

As with other sectors, a mismatch between interest and opportunities persists. Only slightly more than half (57 per cent) of workers said their employers offer cross-regional job transfers.

North America and Europe were the regions of choice for those considering relocation. This reflects the long legacy of nuclear in these regions as well as the desire to not relocate to far-flung locales.

“When nuclear workers do move, they often do so for projects in locations that pay exceptionally high rates. But the majority of jobs don’t offer enough to persuade a worker to relocate their families.” – Hannah Peet

WOULD YOU BE WILLING TO RELOCATE TO ANOTHER REGION FOR WORK?



“When nuclear workers do move, they often do so for projects in locations that pay exceptionally high rates. But the majority of jobs don’t offer enough to persuade a worker to relocate their families,” said Peet.



6. SKILLS

A GROWING CHASM

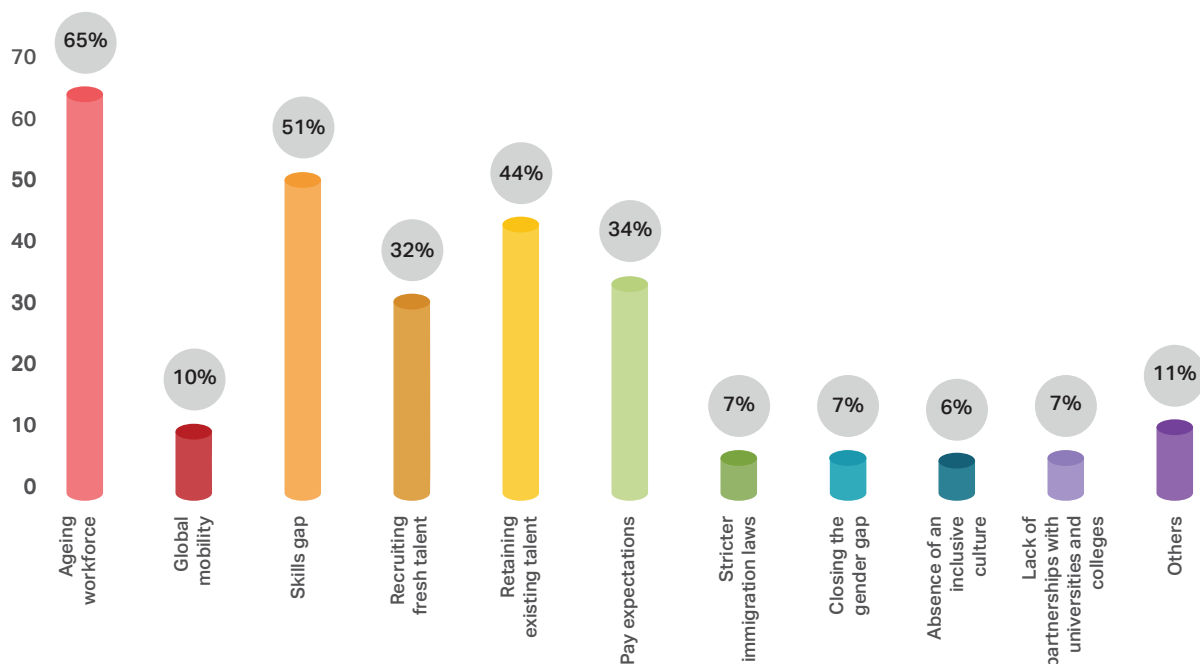
The nuclear industry is on the verge of a massive skills gap as much of the workforce retires.

Among nuclear workers, the ageing workforce was resoundingly ranked as the biggest challenge the sector faces in the next three years. At 65 per cent, this figure was much higher than that of the next closest sector, oil and gas (39 per cent). Additionally, nuclear was the only sector where the majority of workers were concerned about the impact of an impending skills gap.

“Transition into nuclear isn’t easy, but it’s less daunting than a lot of hiring managers realise. The learning curve still takes some time – thus, training begins to play a critical role,” said Peet.

Yet, training is an option that hiring managers in nuclear are comparatively slow to exercise.

WHAT ARE THE BIGGEST WORKFORCE CHALLENGES FACING THE SECTOR? (professionals)



Hiring managers are feeling the pressure and were more likely than their peers to rate the ageing workforce, skills gap and recruiting and retaining talent as impending challenges.

Compounding the issue is the specificity of the skills required. Much of the technology used in the sector is unlike anything else and proficiency requires lengthy training. Nonetheless, there are many skills that can be transferred and adapted from other sectors, such as project management.

Seventy-four per cent indicated that they would rely on implementing new training and development programmes to meet their needs for new skills – high as a standalone total, but the lowest such figure for any sector.

This may be the result of an industry bias. Most hirers in the sector will only consider individuals with nuclear experience. The idea of training workers from other sectors is often overlooked.

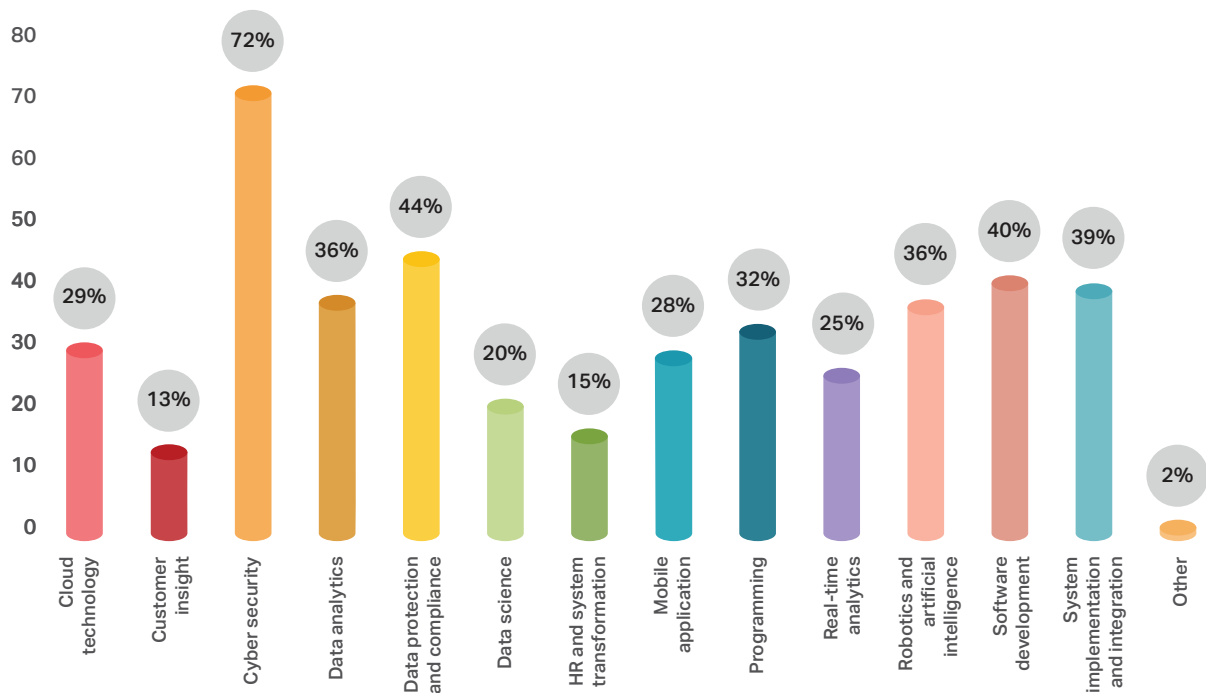


“Hiring managers in nuclear often have a more closed mindset when it comes to where experience comes from. This creates a preference for an talent pool that is getting drained by the day,” said Peet.

In terms of the more general skills required to accommodate digitalisation, cyber security tops the list. Nearly three-quarters of hiring managers cited this as a skill in demand, far higher than the industry average. As nuclear facilities remain high on the list of cyber terrorism targets, the importance of this skill won’t abate.

Additionally, younger professionals see a growing need for the skills associated with more innovative technologies, namely data analytics and cloud technology. Workers between the ages of 25 and 44 were more likely than hiring managers to report this demand.

WHICH AREAS OF EXPERTISE WILL BE IN GREATER DEMAND AS A RESULT OF AUTOMATION? (hiring managers)





7. ATTRACTING TALENT

TIME FOR A MAKEOVER

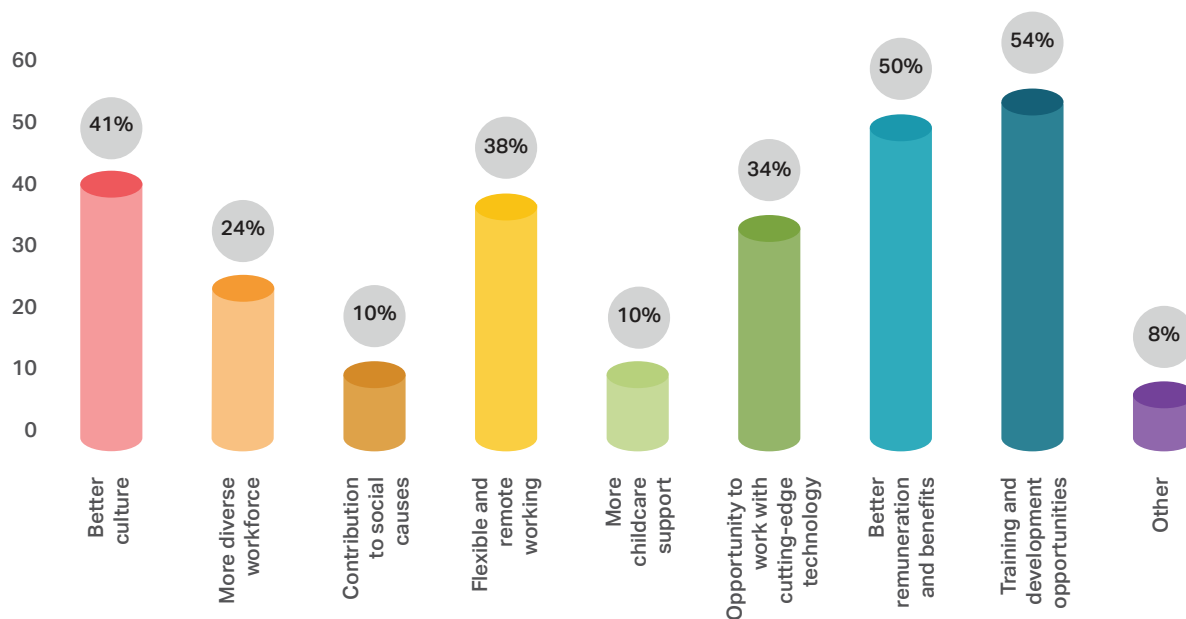
The image problem surrounding nuclear isn't limited to graduates. Many engineers, operators and other potential workers within energy don't find the sector attractive.

"The projects are innovative, the job security is excellent. In any other sector, this would be enough to mobilise talent. The nuclear industry is really struggling to communicate its strengths," said Marx.

Those within nuclear confirm this challenging sentiment. Just one-third of hirers and professionals say the sector does a good job of marketing itself to potential talent. Among hiring managers, nuclear was the only sector where over half of respondents had a negative opinion.

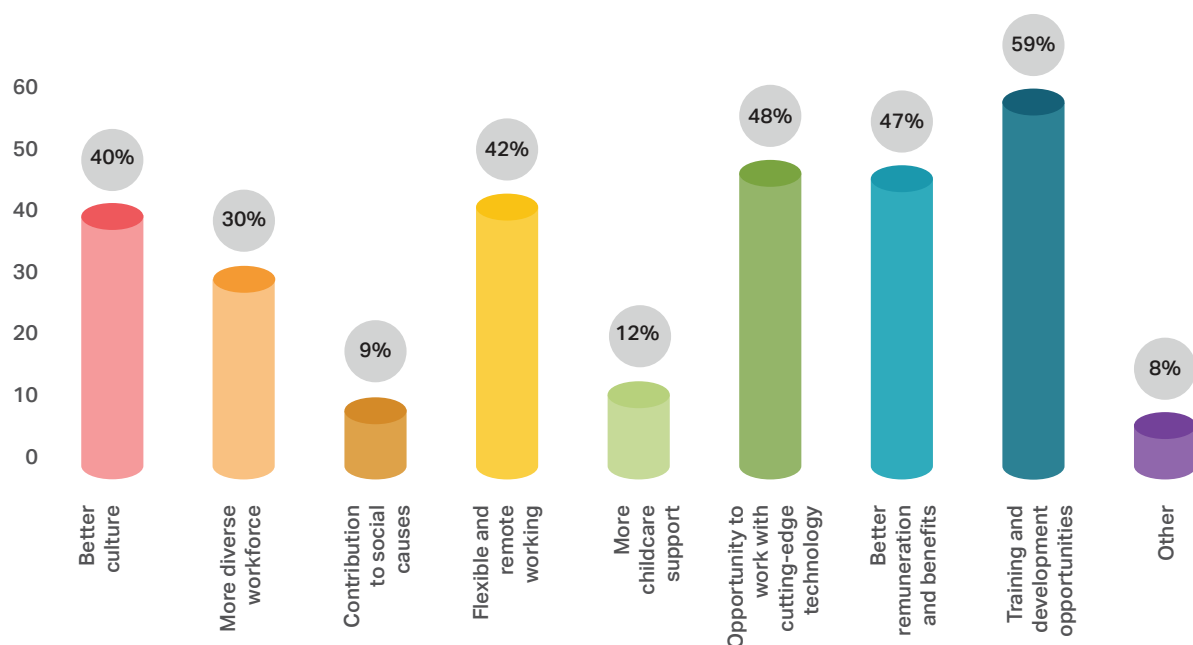
When asked what would help attract talent, both workers (54 per cent) and hirers (59 per cent) pointed towards training. Yet, training opportunities can only go so far if companies aren't finding the people to fill those slots.

WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (professionals)



"The projects are innovative, the job security is excellent. In any other sector, this would be enough to mobilise talent. The nuclear industry is really struggling to communicate its strengths." – Janette Marx

WHAT CHANGES DO YOU THINK YOUR SECTOR NEEDS TO MAKE TO ENSURE IT ATTRACTS THE BEST TALENT? (hiring managers)



Three things need to happen for nuclear companies to address the talent gap.

First, companies need to better communicate how nuclear technology has evolved. The era of giant cooling towers is long gone. Today's projects are small-scale, cleaner and better at pairing digitalisation with skill. By working with AI and big data, younger individuals can help progress this evolution in nuclear.

Second, organisations need to let go of their local bias, especially for younger talent. Experienced individuals may be far less likely to relocate – yet, younger talent is more than keen to move for career progression.

“Nuclear companies need to consider that the next generation of workers is far less likely to stay in a single place for 20 or 30 years. Though turnover will not be frequent, companies may have to accept more of a revolving-door mentality than the current ‘nuclear for life’ thinking,” said Peet.

Finally, hiring managers will need to be more inclusive when considering where talent comes from.

“The use of contractors has exploded over the last year because companies can’t find experienced talent within a 100-mile radius,” said Marx. “The more open hiring managers are to new ideas, the easier it will be to attract what they need.”

The nuclear sector can also do more to attract women. Currently, it has the widest gender gap in the energy industry. Though women in the sector are happier than men, they’re more likely to report that flexible working, a diverse workforce and more childcare support are essential to securing the best talent.

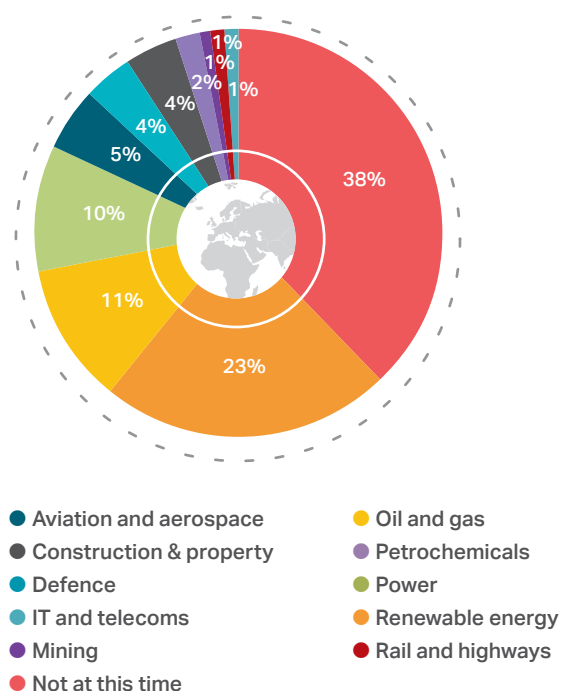
8. RETAINING TALENT

NO RESTING ON LAURELS

Despite being traditionally less likely to jump ship, many nuclear professionals do appear to be eyeing opportunities elsewhere.

Sixty-two per cent of respondents said they would consider a move to a different sector, a figure that hovers near the industry average.

WOULD YOU CONSIDER SWITCHING TO A ROLE IN ANOTHER SECTOR OVER THE NEXT THREE YEARS? (professionals)



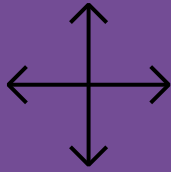
“If it’s progression and technology that nuclear workers want, the sector already offers it,” said Marx. “What could use a refresh is the employer brand. If nuclear companies were to better resemble the trendy tech-focused organisations out there, workers could see how cutting edge their roles actually are.”

Indeed, general working environment and culture were two important sources of unhappiness among young professionals in the sector.

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Renewables is drawing much of the attention, especially among those aged 25 to 44. Interestingly, the aerospace industry is also appealing to a notable portion of younger professionals.

It comes as no surprise that younger individuals would consider leaving for career progression. Workers aged 25 to 34 were nearly 50 per cent more likely than the average respondent to move sectors for this reason.



Summary Nuclear

Nuclear has historically benefitted from having one of the most loyal, captive workforces in the energy industry. Yet the things that mattered most to previous generations – longevity and locality – aren't as appealing to this generation. Maintaining existing talent will require a new approach.

"Stability may eventually appeal to young talent as they mature. But right now, they want to be challenged, paid well and part of exciting projects that push the industry forward," said Peet.





Summary

Digitalisation isn't just reshaping how the energy industry functions – it is causing companies to think differently about how they form their workforce.

Because technology talent is increasingly at a premium, sectors are having to adapt their recruitment approaches in an effort to enhance their appeal.

Some sectors, such as nuclear and oil and gas, will need to address the perception that they are lagging when it comes to technology. Others, namely renewables and power, will have to compete more aggressively at the university level.

Companies are leaning on digitalisation for creative solutions to the skills gap. Flexible working is one such example – using technology to enable a more relaxed working setup can enhance a company's appeal at a lower total cost than wage hikes.

To lessen culture shock for outsiders, more companies will strive for the innovative workplace environments – relaxed in style but fast-paced in execution – that are prevalent among tech start-ups.

In transforming the energy industry, technology will also bring some parity across the individual sectors. Anyone with an eye on predictive analytics, robotics or artificial intelligence can find a project to pique their

interest. Individuals seeking a chance to work with innovative technologies will no longer feel limited to the renewables sector.

These developments signify an industry in the midst of metamorphosis. While initially met with some uncertainty, digitalisation is now being embraced by the majority of the energy workforce. And while some are worried about the impact of automation on their job prospects, most feel emboldened by the opportunities presented by digitalisation.

This is evident in the insights captured throughout this report. Mobility is high because individuals are intrigued by what's next. People are more likely to move for development opportunities than job security. Workers are happier as the workplace culture around them becomes more vibrant.

The energy industry looks set for a bright future as it continues on the path to digitalisation. We look forward to seeing how the various sectors adapt their recruitment strategies as growth makes the quality and quantity of talent even more imperative.

