



How Workforce Planning Will Shape the Future of Energy Projects

A Strategic Perspective on Talent, Skills
and Workforce Development

Executive Summary

The global energy sector is entering a period of unprecedented growth and transformation. Driven by ambitious decarbonisation targets, increasing energy demand and large-scale investments in renewable energy, the need for skilled professionals is rapidly accelerating.

According to the Global Wind Energy Council (GWEC), the global wind industry will require approximately 628,000 wind technicians by 2030 to support the installation, operation and maintenance of wind assets worldwide. At the same time, the global wind fleet is expected to grow to approximately 2.1 TW of installed capacity by 2030, highlighting the scale of workforce growth required across the industry.

This challenge is particularly visible in offshore wind. In the United Kingdom alone, the offshore wind workforce is expected to exceed 100,000 jobs by 2030, with the sector requiring approximately 10,000 additional workers every year to meet project demand and delivery targets.

While technology, investment and regulation remain essential drivers of growth, the success of future energy projects will increasingly depend on the availability of qualified people. Energy companies are therefore facing a critical question: how can they secure the skills, experience and capabilities needed to deliver projects successfully over the next decade?

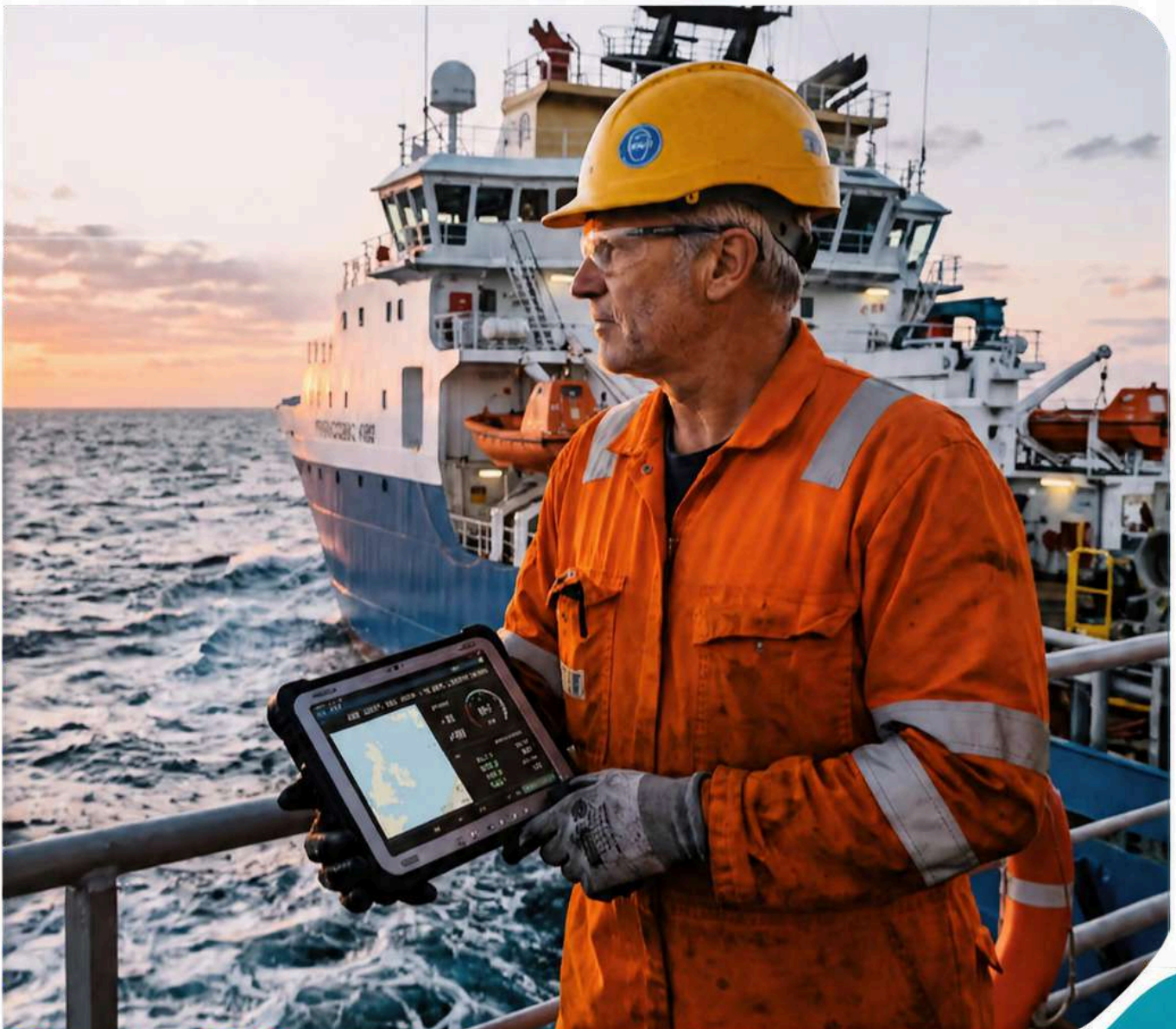
This whitepaper explores how workforce planning can help organisations anticipate future talent needs, unlock transferable skills from adjacent sectors, strengthen workforce readiness through training and certification, and build future-proof teams capable of supporting the next generation of energy projects.

The organisations that invest in workforce planning today will be best positioned to deliver the energy infrastructure of tomorrow.



Key Takeaways

- The global wind industry requires 628,000 wind technicians by 2030.
- Global wind capacity is expected to reach approximately 2.1 TW by 2030.
- The UK offshore wind sector is projected to exceed 100,000 jobs by 2030.
- Workforce planning is becoming a strategic business priority across the energy sector.
- Future project success will depend on skills development, certification and talent mobility.



Chapter 1: The Next Phase of Energy Project Growth

The global energy market continues to evolve as governments, investors and industry leaders pursue ambitious decarbonisation and energy security objectives. Offshore wind remains one of the fastest-growing segments within the energy sector, while investments in hydrogen, grid expansion, electrification and carbon reduction technologies continue to accelerate.

This growth is creating a significant increase in workforce demand. According to the Global Wind Energy Council (GWEC), the global wind industry is expected to require approximately 628,000 wind technicians by 2030 to support installation, operations and maintenance activities worldwide. During the same period, global wind capacity is projected to reach approximately 2.1 TW, more than doubling the scale of today's workforce requirements.

Industry Snapshot



628,000

wind technicians required globally by 2030



2.1 TW

projected global wind capacity by 2030



100,000+

offshore wind jobs expected in the UK by 2030



10,000

additional offshore wind workers needed annually in the UK

The challenge is particularly visible in offshore wind. In the United Kingdom, alone, the offshore wind workforce is expected to exceed 100,000 jobs by 2030, with the sector requiring approximately 10,000 additional workers every year to meet growing project demand. Similar growth patterns are emerging across Europe, North America and Asia-Pacific as governments continue to expand renewable energy targets.

As projects become larger, more technically complex and increasingly international, organisations require broader and more specialised teams. Engineering expertise, project management capabilities, marine operations knowledge and technical support functions will all play a critical role in enabling future project delivery.

While investment and technology are often viewed as the primary drivers of growth, workforce availability is becoming an equally important consideration. Companies must understand which capabilities will be needed in three, five and even ten years from now. A reactive hiring strategy is no longer sufficient in a highly competitive market where experienced professionals are in high demand.

Forward-looking organisations are therefore integrating workforce planning directly into their business strategy. By aligning future talent requirements with long-term project pipelines, companies can reduce project risks, improve delivery confidence and create a stronger foundation for sustainable growth.



Key Takeaways

Energy project growth is driving unprecedented demand for professionals.

Workforce availability is becoming a strategic business challenge. Long-term workforce planning is essential for project success.



Chapter 2: The Skills Defining the Future Workforce

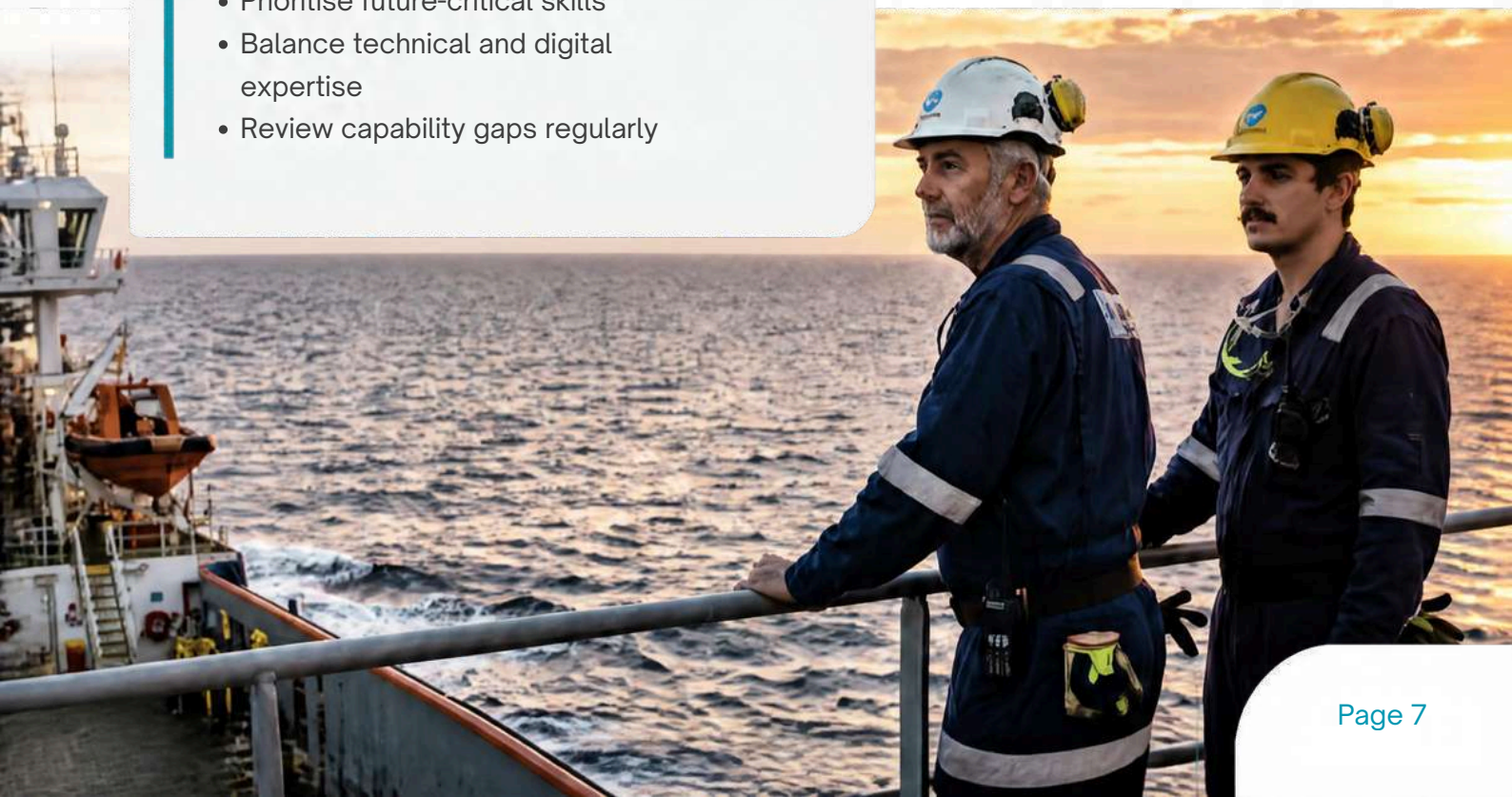
The workforce of the future will require a combination of engineering excellence, operational experience and digital capabilities. Core disciplines such as electrical engineering, commissioning, installation management and asset integrity remain critical.

At the same time, demand for data analytics, remote operations and digital asset management continues to grow. Employers are increasingly seeking professionals who can operate across disciplines and adapt to changing technologies.

The rise of automation and digitalisation does not reduce the need for people; rather, it changes the skills they require. Organisations should regularly assess current capabilities against future business objectives. Skills forecasting is becoming an essential component of strategic workforce planning.

Key Takeaways

- Prioritise future-critical skills
- Balance technical and digital expertise
- Review capability gaps regularly



Chapter 3: Unlocking Talent Through Transferable Skills

Many of the skills needed for future energy projects already exist within adjacent sectors.

Professionals from Oil & Gas, Maritime, Civil Infrastructure and Defence often possess highly relevant experience. Competencies in offshore operations, safety management, project delivery and technical engineering can transfer successfully into new energy environments.

Recognising transferable skills allows organisations to expand talent pools without relying entirely on new entrants.

Cross-sector mobility can shorten hiring timelines and improve workforce flexibility.

Targeted onboarding and certification programmes can accelerate successful transitions.

Companies that embrace talent mobility can gain a significant competitive advantage.



Key Takeaways



Look beyond traditional talent pools



Support cross-sector mobility



Create clear transition pathways



Chapter 4: Reskilling and Upskilling for Long-Term Success

Continuous learning is becoming a strategic requirement throughout the energy industry. Reskilling helps experienced professionals transition into emerging disciplines, while upskilling ensures existing employees remain relevant.

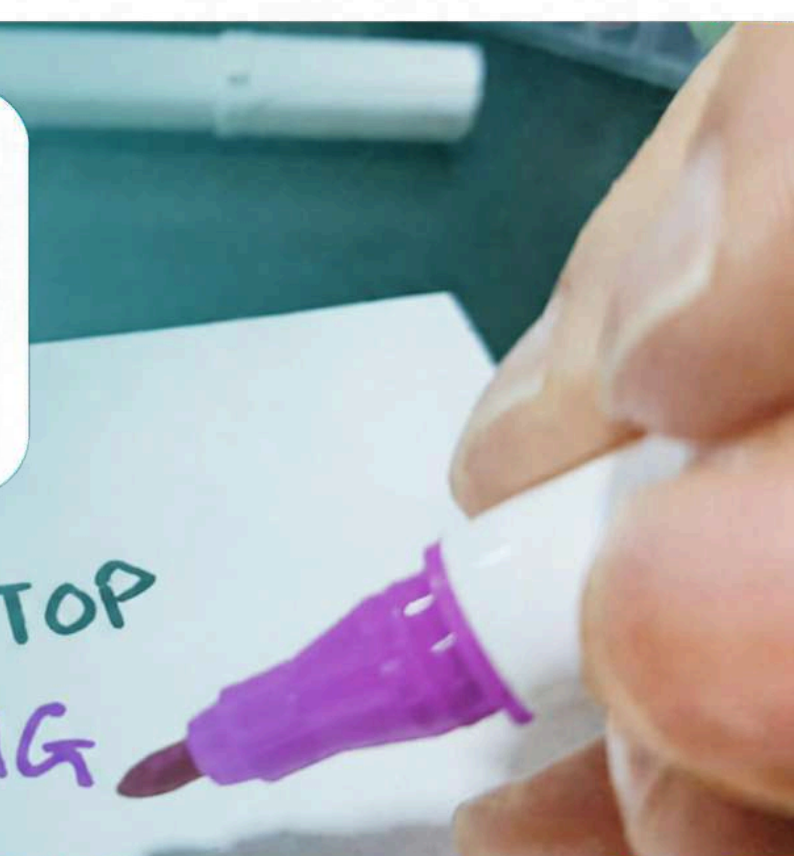
Leading organisations invest in structured learning pathways and development programmes. Partnerships with educational institutions and training providers can strengthen workforce readiness.

Technical development should be complemented by leadership, communication and project management training. Learning initiatives create stronger retention and engagement outcomes. An investment in people remains one of the most valuable long-term business investments.



Key Takeaways

- Invest in structured learning
- Link training to future demand
- Support continuous development



NEVER STOP
LEARNING

Chapter 5: Certification as a Foundation for Project Readiness

Technical expertise and industry experience remain essential, but certification plays an equally important role in ensuring workforce readiness. Across Offshore Wind, Oil & Gas and Maritime industries, certifications help establish consistent safety standards, operational competence and regulatory compliance.

As energy projects become more complex and international in nature, employers increasingly rely on certifications to validate skills and reduce operational risk. For professionals transitioning between sectors, certifications often provide the formal recognition needed to apply existing knowledge in new environments. This is particularly relevant for workers moving from Oil & Gas or Maritime operations into Offshore Wind projects.

Mandatory certifications such as GWO, BOSIET, HUET and various safety, technical and marine qualifications have become standard requirements for many offshore roles. Beyond compliance, they help improve safety performance, reduce onboarding time and increase workforce mobility across projects and regions.

Key Takeaways

- Certifications support safety, compliance and operational excellence.
- Industry-recognised qualifications accelerate workforce mobility.
- Proactive certification management improves project readiness.

For organisations, ensuring that employees maintain current certifications is an important component of workforce planning. Companies that proactively manage certification requirements are better positioned to deploy talent efficiently and respond to changing project demands.

At iPS Powerful People, certification management forms an important part of our workforce support approach. We work closely with candidates, training providers and clients to ensure professionals possess the qualifications required for specific projects and locations. By maintaining insight into certification requirements and workforce availability, iPS helps organisations reduce deployment delays and improve project readiness.

Ultimately, certifications are more than administrative requirements. They are a critical enabler of workforce mobility, operational safety and successful project execution.



Chapter 6: Workforce Planning as a Competitive Advantage

Workforce planning is evolving from an HR process into a strategic business function. Organisations that forecast talent needs early can reduce project risk and improve execution. Planning enables better resource allocation and stronger decision-making. It also provides greater visibility into succession planning and capability development.

Companies with mature workforce planning practices are often better prepared for market changes. They can respond more effectively to new opportunities and shifting project requirements. Ultimately, workforce planning helps ensure the right people are available at the right time.



Key Takeaways

- Invest in structured learning
- Link training to future demand
- Support continuous development

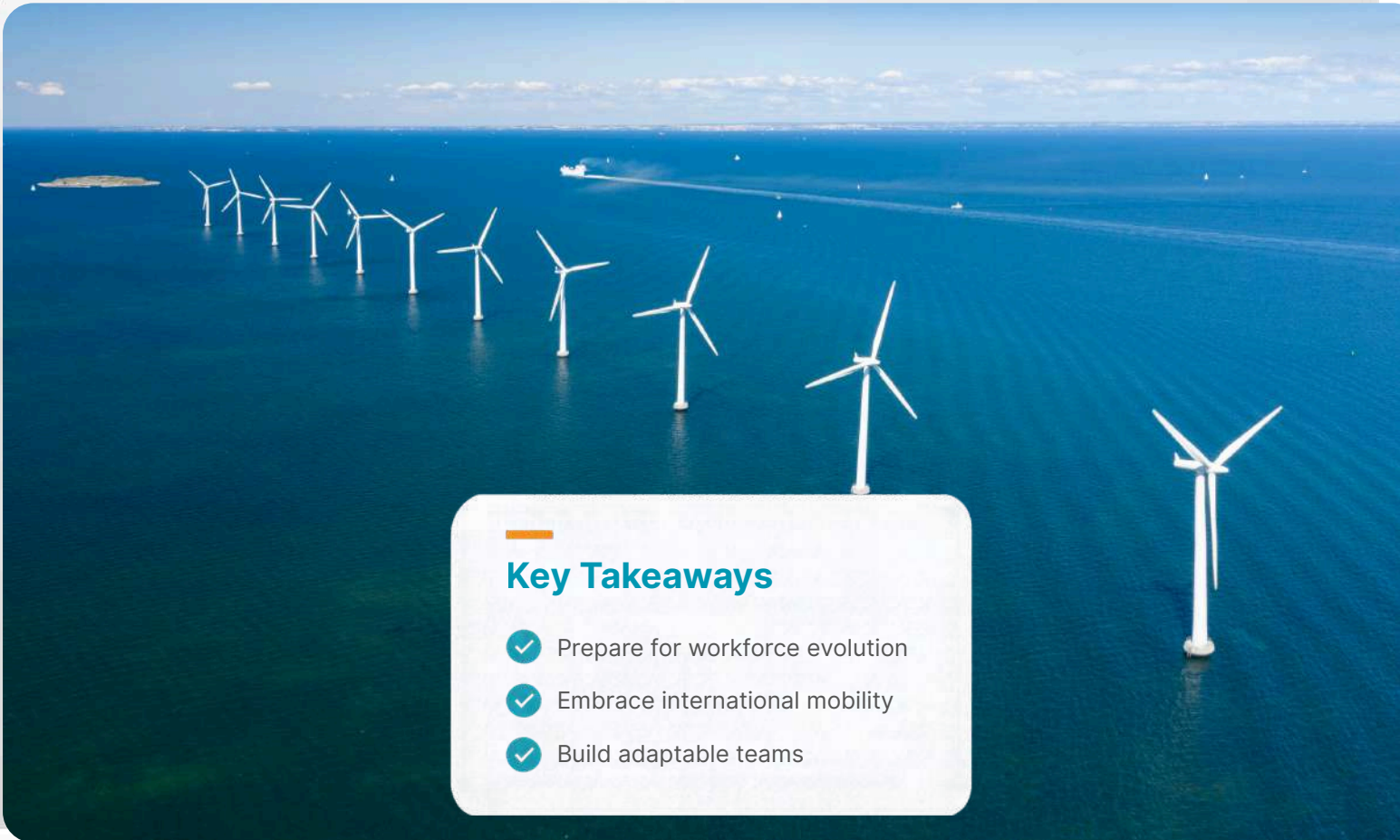


Chapter 7: Looking Ahead to 2035

The future workforce will be more international, more digital and more interconnected than ever before. Energy companies will need to attract talent from multiple sectors and regions.

Workforce flexibility will become increasingly important as projects diversify. Digital tools will support planning and resource allocation but human expertise will remain essential.

New career pathways will emerge as technologies continue to evolve. Employers that embrace adaptability will be best positioned for success. The foundations for the 2035 workforce are being created today.



Key Takeaways

- ✓ Prepare for workforce evolution
- ✓ Embrace international mobility
- ✓ Build adaptable teams

**You want to know how we can help
you build your future workforce?**

Get in touch with one of our professionals,
or fill in contactform:

**Looking for the right people to
move your projects forward?**

Get in touch with Mariëtte!



How iPS Powerful People Supports Energy Companies for over 37 years

iPS Powerful People helps organisations build high-performing teams across Offshore Wind, Oil & Gas, Maritime and Energy.

With decades of international recruitment experience, iPS connects companies with skilled professionals for both contract and permanent positions.

The organisation understands the importance of workforce planning and the growing need for transferable skills.

iPS supports clients by identifying talent pools, developing recruitment strategies and providing access to specialised expertise.

This enables companies to respond quickly to changing project demands. By combining market insight with global reach, iPS helps organisations strengthen their workforce strategies.

The result is greater workforce agility and improved project readiness.



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