



One Safety Vision The Great Knowledge Exchange

Bridging the 'Confidence Gap'
in Skills and Competencies across
Asia Pacific's Safety-Critical Industries



The aim of this report

Amidst the growing convergence of safety-critical sectors to support tomorrow's integrated energy system, this report was commissioned to help understand what gives Asia Pacific's safety-critical industries the confidence to share knowledge and skills.

With a strong foundation of workforce competence, employers and employees across Asia Pacific have a growing appetite for greater workforce mobility. Yet practical challenges remain when existing skills, qualifications and experience need to be recognised and verified across traditional boundaries.

The report explores the factors helping and hindering the transferability of skills and competencies across sectors, and examines possible pathways to improve the cross-sector circulation of talent and expertise.

It is intended to serve as a practical guide for industries, regulators, training providers, standards bodies and other stakeholders seeking to foster the transition towards a multi-skilled, mobile workforce and support greater collaboration across safety-critical industries.

The Cross-Sector Confidence Gap

76%

of employers are confident workers and contractors have the right training, skills and behaviours to work safely in hazardous environments.

57%

of respondents say trust breaks down when training or certification is not recognised across sectors, employers, projects or geographies.

55%

of respondents say trust breaks down when practical competence is difficult to verify.

61%

of respondents say globally aligned training and safety standards would do most to build trust in a workforce system where people can move more easily between sectors, employers, projects and geographies.

60%

of workers who would consider moving into an adjacent safety-critical sector say evidence that their experience will be valued would give them the greatest confidence to make the move.

The findings point to an opportunity to build greater trust in skills that already exist – recognising what is common, identifying what is different, and bridging genuine competence gaps.

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01 About OPITO

OPITO is the global skills authority for safety-critical industries. There are over 500,000 OPITO registrations every year, across 50 countries through almost 300 accredited training centres.

As a charitable educational trust, OPITO reinvests its profits into education, skills development and workforce initiatives that support the future talent needs of safety-critical industries. OPITO works to develop a safe, skilled and competent workforce by driving global standards and qualifications, creating workforce development solutions and leading dialogue with industries and governments. With operational centres of excellence across Europe, Middle East and Africa, Asia Pacific and the Americas – OPITO is driving safety and competency improvements to benefit industry and providing career pathways and training opportunities for the current workforce and the next generation.

02

Foreword from OPITO

Asia Pacific's safety-critical industries are coming together to build the integrated energy systems of tomorrow, opening the way to a cross-sector exchange of skills and knowledge.



Demand for a mix of traditional and new energy sources as well as raw materials for technologies, from electric vehicles to solar, is spurring growth across energy and mining sectors. Mixed power sources, multi-energy portfolios, cross-sector green energy projects and consortiums are breaking down traditional sectoral boundaries, uniting skills across industries.

As the energy and mining sectors scale together, workers and contractors will need to be able to work across everything from offshore wind platforms and oil and gas rigs to CCS projects. As sectors converge, safety no longer exists in a silo. A common understanding of safety will become increasingly important to create shared confidence in skills and competencies across sectors.

Safety-critical industries already share many similar skills and competencies, and a common need to keep workers safe in high-risk environments. Sharing knowledge and skills would allow all industries to benefit from diverse experience and create multi-disciplinary international workforces that can traverse geographies and sectors.

Yet this hinges on trust and confidence that skills and competencies are mutually compatible and can carry across sectoral boundaries. Workers need belief in their ability to work safely with crews from other industries, and employers and operators need the confidence to draw on diverse talent while maintaining consistent safety standards. Trust is the missing link in the integrated energy ecosystem of tomorrow.

This report explores the level of trust in workforce competence across APAC's safety-critical industries, and how this affects collaboration, workforce performance and even project outcomes. It shines a light on the gap in confidence between sectors and regions, and opportunities to bridge pathways, connecting knowledge and skills across industries.

What emerges is the need for a shared language around safety so that knowledge and skills can be understood, recognised and verified wherever and however they are learned. There is an opportunity for companies, skills and standards bodies, and policymakers to come together and develop trusted ways to recognise and verify skills globally across sectors. As industries increasingly work together, everyone has a common interest in creating consistent, interoperable skills. The prize is a multi-skilled, mobile workforce with wider career opportunities, cross-sector collaboration, and knowledge exchange built on a shared foundation of trusted, globally aligned skills.

As an independent global not-for-profit skills body, we aim to play a role in convening safety-critical sectors to build trusted pathways for skills to travel. Through our global network of accredited centres, we already train over half a million people a year and work with partners to enable mutual recognition of skills across sectors. In the long term, our goal is to work with our partners and peers to develop a shared language of safety for the translation and transposition of skills across sectors worldwide.



// This timely report helps highlight the potential hurdles and pathways towards that one shared vision of safety. //

CHAPTER

1

Why the skills landscape is changing: The growth and convergence of Asia Pacific's safety-critical industries

The accelerating energy transition, rapid industrialisation, energy security concerns and growing populations are driving growth across APAC's energy and mining industries. The region is now undergoing the world's fastest renewable energy expansion ^[1] and produces most of the rare-earth mineral ingredients ^[2] for the energy transition, while dominating the global oil and gas market ^[3].

Cross-sector growth is driving parallel demand for skills across safety-critical industries. 54% of employers/operators surveyed are concerned about the availability of skilled workers in their sector or market over the coming five years.

At the same time, 53% of employers would consider hiring or deploying workers from adjacent safety-critical sectors if skills become harder to find, while the same proportion of workers would consider moving into an adjacent sector.

Together, these findings point to both a need and an appetite for greater workforce mobility.

The challenge is therefore not simply whether skills exist across APAC's safety-critical industries, but whether those skills can be recognised, trusted and deployed effectively when workers move across traditional sectoral boundaries.

^[1] <https://ember-energy.org/latest-updates/half-the-worlds-renewable-electricity-and-growing-climate-extremes-the-dual-pressures-facing-asia-pacific-power-grids/>

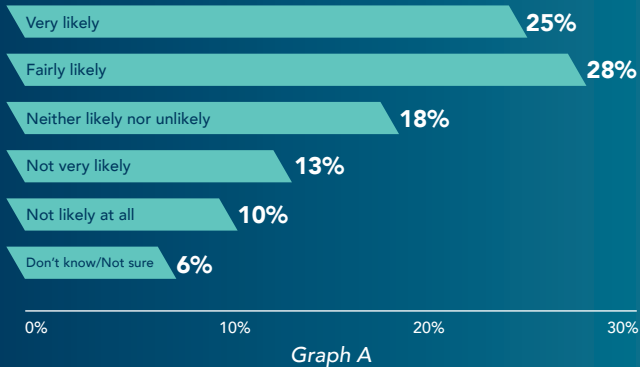
^[2] <https://www.iea.org/reports/global-critical-minerals-outlook-2026/executive-summary>

^[3] <https://www.fortunebusinessinsights.com/oil-and-gas-market-111534>

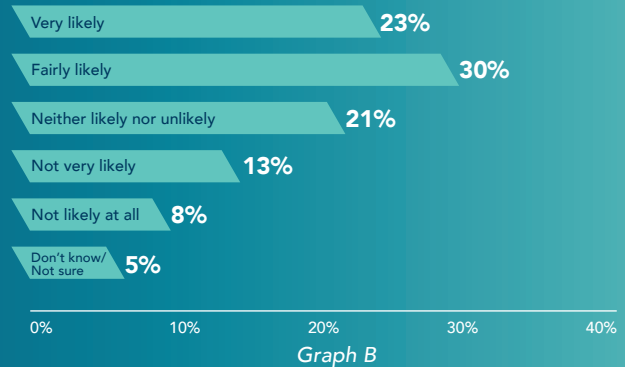
^[4] <https://www.mining-technology.com/features/bringing-renewables-to-mines-in-western-australia/>

^[5] <https://www.bhp.com/news/media-centre/releases/2025/08/global-industry-leaders-launch-ccus-hub-study-to-accelerate-decarbonisation-in-asia>

Likelihood of organisations to consider hiring or deploying workers across safety-critical sectors if skilled workers become harder to find. (For all employers/operators)
(See Graph A).



Likelihood of workers to consider working in adjacent safety-critical sectors within the next 5 years if opportunities become available. (For all workers)
(See Graph B).



This comes as the growing convergence of safety-critical industries from renewables to oil and gas is seeing workforces increasingly working outside traditional sectoral boundaries. Traditionally separate sectors, such as renewables and oil and gas, are collaborating on projects such as wind-to-hydrogen, while oil and gas supermajors are diversifying portfolios to encompass low-carbon energy, renewables and batteries. APAC's mining and energy sectors are similarly working across sectoral divides, with some mining companies adopting onsite renewable energy generation ^[4] or joining cross-sector consortiums ^[5] with energy companies on CCS projects.

Cross-sector integration is creating the possibility for a mutually beneficial exchange of skills and experience. 76% of employers across safety-critical sectors express confidence that workers and contractors have the right training, skills and behaviours to work safely in hazardous environments, indicating that workers already have the foundation of skills needed to work across a range of high-risk sectors. **Stephen Marcos Jones, CEO, OPITO** said:

"By making these complementary skillsets easier to recognise and verify, we could allow knowledge and talent to circulate more easily across industries. Building mutual trust and confidence in competencies among different industries could help skills travel further."

Progress towards an 'All-Energy Workforce' for APAC

OPITO is working with partners in Malaysia to improve the transferability of skills. The project involves accrediting its programmes to international standards and equipping its workforce with Energy Transition Qualifications, which provide the foundational skills to work across an increasingly integrated offshore energy economy from hydrogen to CCUS. It marks a step towards the creation of an integrated all-energy workforce with transferable skills that could serve as a model for APAC's safety-critical industries.

CHAPTER

2

What the research tells us: A cross-sector confidence gap

The research points to a cross-sector confidence gap: confidence in workforce competence is relatively strong, but can weaken when skills, training and experience have to be recognised and trusted across sectoral, employer, project or geographic boundaries.

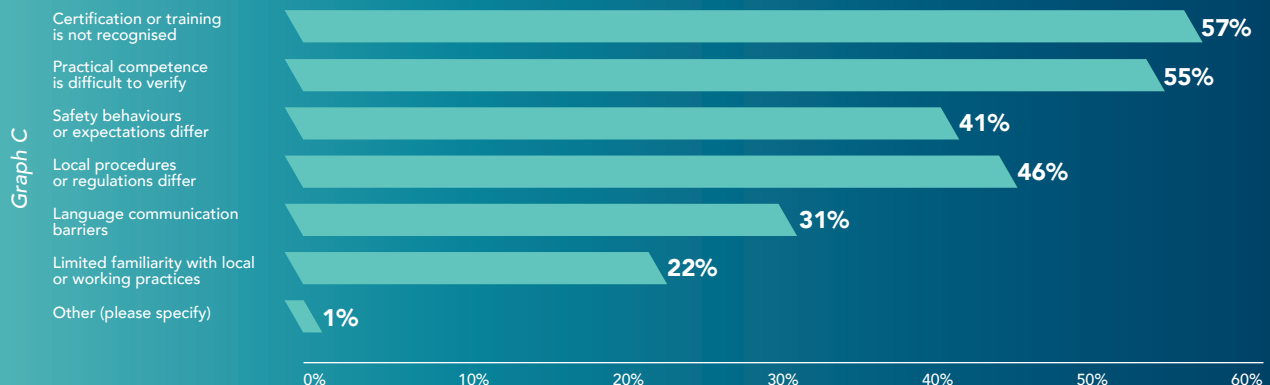
57% of respondents say trust breaks down when people work across these boundaries because training or certification is not recognised.

Practical competence being difficult to verify is another significant point of friction, cited by 55% of respondents.



Over half say this happens when practical competence is difficult to verify, which is evenly split among workers and employers/operators. Another 41% say that trust breaks down when safety behaviours or expectations differ. The findings suggest that gaps in standards, qualifications, policies and procedures are creating a confidence gap between industries and regions that could impede collaboration, knowledge sharing and upskilling.

Where do you think trust most often breaks down when people work across different sectors, employers, projects or geographies? (For all respondents). (See Graph C).



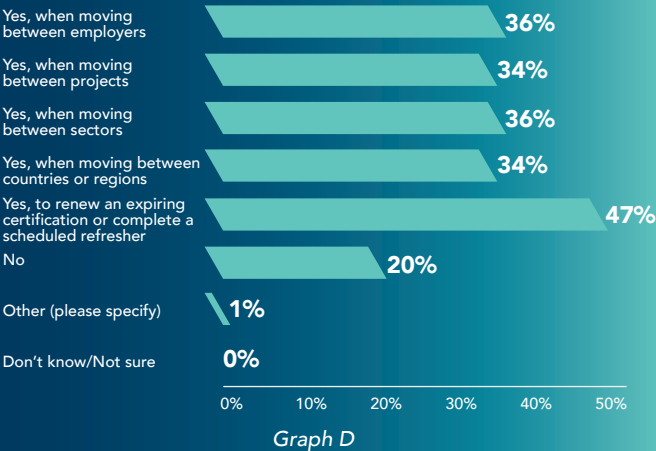
These confidence gaps between sectors are making talent transfer more costly and time-consuming. Over two-thirds of employers always or often require additional training, certification or assessment before hiring or deploying workers from adjacent safety-critical sectors. Over a third of workers have similarly had to repeat training, certifications or assessments for roles where they already had relevant experience when switching between sectors, employers, projects or regions.

For workers who are unlikely to move into an adjacent safety-critical sector, uncertainty over whether existing training would be recognised is a significant barrier, cited by 59%. At the same time, among workers who would consider moving into an adjacent sector, 60% say evidence that their experience will be valued would give them the most confidence to make the move, while 53% cite recognition of their existing training or certification.

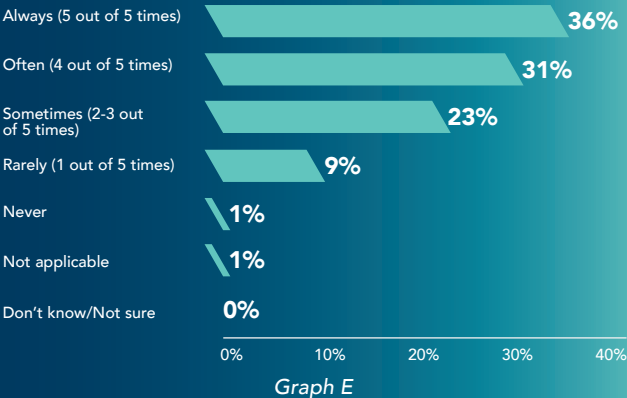
This indicates that siloed training, certification and assessment can restrict career mobility and efforts to transition workers across roles, projects and internal divisions. Employers need confidence that safety standards will remain consistent across diverse workforces, while workers need confidence that their existing skills and experience will be recognised and respected outside their current sector.

Stephen Marcos Jones, CEO, OPITO says: *“Greater workforce variation can introduce challenges in hazardous environments where workers need a shared understanding of everything from emergency shutdown procedures to crane operations. This is difficult when there are disparities among industries and countries in the standards, terminology and approaches required to work safely for example at height or in confined spaces. Building confidence in skills across sectors could reduce these inefficiencies, allowing workers to move and retrain only where necessary without duplicating training, testing or qualifications, enabling faster upskilling and redeployment.”*

In the past five years, have you had to repeat training, certification or assessment for a role where you already had relevant experience? (For all workers) (See Graph D).



When hiring or deploying workers from adjacent sectors, how often does your organisation require additional training, certification or assessment before deployment? (For all employers/operators) (See Graph E).



CHAPTER
2

CONT.

The findings also point towards a practical response. Building greater trust does not require workers to relearn competence they have already demonstrated. It requires industries to become better at recognising what is equivalent, verifying what can transfer and identifying where additional learning or assessment is genuinely required.

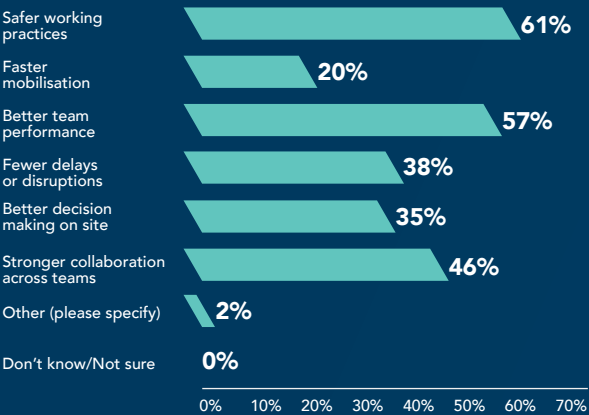
61% of workers say that greater trust and confidence in workforce competence would lead to safer working practices and 58% of employers similarly say this would improve safety performance, indicating that mutual trust in skills and qualifications among industries could improve collective safety.

57% of workers say greater trust and confidence in workforce competence would engender better team performance while almost half say it would boost cross-team collaboration.

This suggests that confidence in shared competencies could enhance collective productivity and collaboration, which will become more important as safety-critical industries increasingly collaborate on joint projects.

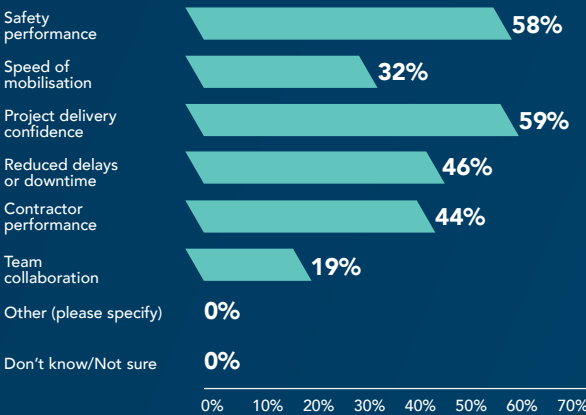
This could even improve performance. 59% of employers say more confidence in workforce skills would improve project delivery confidence and 46% say this could reduce delays or downtime. The implication is that confidence in workforce skills could also spill over into confidence in project outcomes and improve performance.

In your experience, where does greater trust and confidence in workforce competence have the biggest impact? (For all workers) (See Graph F).



Graph F

In your experience, where does greater confidence in workforce competence have the biggest operational impact? (For all employers/operators) (See Graph G).



Graph G



The survey points towards several possible pathways to help achieve this and build shared trust in competencies across industries.

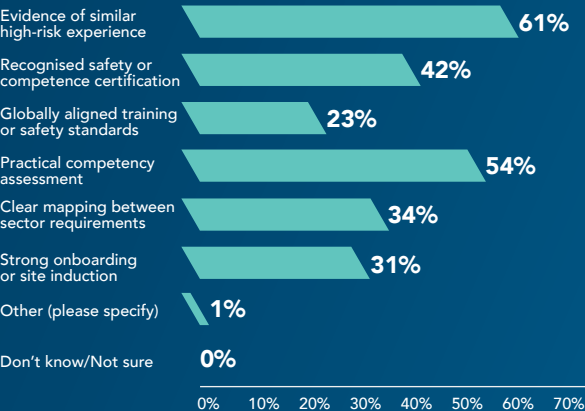
61% of all respondents say globally aligned training and standards would be most effective to build trust in a workforce system where people can move more easily between sectors, employers, projects and geographies and 55% cite clearer recognition of existing certifications. This is reflected across markets, with 54% of respondents in Australia and Indonesia, rising to 74% and 68% of respondents in Malaysia and Vietnam respectively citing globally aligned training and standards as key to building trust.

This suggests that interoperable standards could ease the flow of talent and knowledge across industries, allowing workers to move more easily between locations, roles, teams and projects.

Similarly, when asked what measures would most increase their trust when working with people outside their usual team, employer, sector or geography, a substantial proportion of workers cited shared safety behaviours or globally aligned training and standards (42% and 41% respectively). This suggests that portable safety standards and shared practices could help unify workforces across sectoral and regional divides.

When asked what would give them greatest confidence to move between sectors, 60% of workers cite evidence that their experience would be valued while 53% pinpoint recognition of their existing training and certification. This is mirrored by employers who say practical competence assessments (54%) or recognised safety or competence certification (42%) would give them the greatest confidence to hire or deploy workers from adjacent sectors.

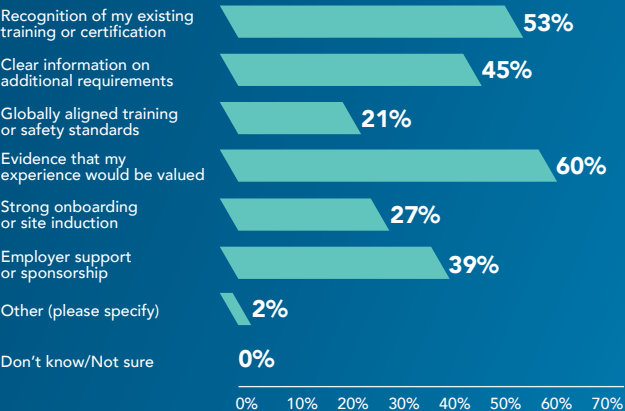
What would give your organisation the greatest confidence to hire or deploy workers from adjacent safety-critical sectors? (For all employers/operators*)
(See Graph H).



Graph H *For employers/operators who were very likely, fairly likely or neither likely nor unlikely to hire/deploy workers from adjacent sectors.

This demonstrates that interoperable assessments and certifications could boost mobility - allowing workers to gain a wider range of experience and helping employers tap into a broader pool of talent. For example, employers could offer new recruits a wider range of future experience across their portfolios to increase recruitment and retention. More interoperable training and assessments may also give workers in cyclical industries more confidence in the transferability of their skills.

What would give you the greatest confidence to move into an adjacent safety-critical sector? (For all workers*)
(See Graph I).



Graph I *For workers who were very likely, fairly likely or neither likely nor unlikely to move into an adjacent sector.

The central finding is that greater interoperability between standards, certification, training and assessment could build mutual trust between industries and allow skills and experience to travel more widely.

CHAPTER
3

The implications for industry: Towards a shared vision for safety and skills

Bridging the cross-sector confidence gap does not mean making every industry the same; interoperability does not mean uniformity.

Different sectors, roles and operating environments will continue to require specific competence, standards and assurance. The opportunity is to distinguish those genuine differences from competence that is already common or equivalent: recognising what can transfer, identifying what cannot, and bridging only the additional requirements needed for workers to move safely between sectors.

APAC’s safety-critical industries could begin by mapping shared competencies and equivalencies as a basis for more trusted recognition across sectoral boundaries.



ACTION	DESCRIPTION
MAP	Identify common competencies and genuine sector-specific differences across safety-critical industries.
RECOGNISE	Create trusted mechanisms for recognising equivalent training, certification, assessment and experience.
BRIDGE	Define the additional learning or assessment genuinely required when workers move between sectors, rather than duplicating competence already demonstrated.
CONVENE	Bring industry, regulators, training providers and standards bodies together to develop, test and maintain these pathways.

There are already many potentially transferable skills across the energy and mining industries such as working safely at height or in confined spaces.

These competencies could be validated and recognised across sectors and supplemented with additional skills, helping efficiently redeploy workers in new roles without duplicating existing training. For example, workers trained in electrical maintenance in one industry could be upskilled in High Voltage (HV) qualifications to help roll out the HV networks needed for the energy transition.

This could establish a foundation of interoperable safety skills for all workers to build on, while allowing for natural variation across different employers, sectors and regions. The basis for more interoperable standards already exists. For example, independent consultants recently reviewed 207 OPITO safety standards in LNG and found that 42 are already potentially applicable across other sectors while 57 could be made transferable with some adjustments.

In this way, interchangeable core competencies could make it easier to retrain and transition talent across sectors or move workers faster up the career ladder. Portable qualifications could also allow employers to offer faster career progression and experience across a variety of industries and regions, appealing to younger workers that value career choice, flexibility, and personal growth. This could boost recruitment and retention, helping address concerns over future availability of skills. As all the region's safety-critical industries seek to scale their workforces, this would also help create a more diverse, flexible workforce trained to consistent standards. This would allow knowledge and skills to travel more freely between industries such as oil and gas and hydrogen, petroleum and biofuel or mining and CCS.

Interoperable standards could even help accelerate the energy transition, giving all workers shared tools and terminologies for decarbonising operations or equipping traditional energy workers with transferable skills to work in renewable energy.

For example, the journey to hydrogen could build on existing competence, progressing from downstream processing facilities to environments where hydrogen is blended with natural gas, before moving into fully hydrogen-based operations.

Beyond this, interoperable standards can provide a trusted shared language to help workers collaborate and share safety learnings and best practices across sectors. Many safety standards and qualifications have cross-sector relevance, and some are already used to transition between sectors. For example, Helicopter Underwater Escape Training (HUET) is relevant to any offshore industries where workers travel by helicopter or may need rescue by air. Similarly, there are natural synergies between emergency skills such as firefighting or muster checking. Matching these overlapping skills with shared standards could create a multi-skilled workforce built on a shared foundation of trusted competencies, boosting workforce performance and project performance.

Fostering trust between industries would also help instil a culture of knowledge sharing where companies share examples of safety challenges and learnings.

As industries converge and project teams are drawn from a wider mix of backgrounds, cross-sector standards would further ensure cohesion and consistent best practices across more diverse workforces, boosting collective performance.

Opening trusted pathways for skills to circulate more widely would create new opportunities for cross-sector collaboration, globally consistent safety standards and a mobile, adaptable workforce able to move more easily between sites, sectors, roles and regions. Ultimately, internationally interoperable standards would help unify the integrated energy systems and supply chains of tomorrow around a shared vision of safety.



Conclusion

As APAC's safety-critical workforces increasingly collaborate across companies and industries, this report highlights the opportunity to facilitate this great skills exchange and build trusted pathways for knowledge and skills to travel.

Based on our survey, there is evidence to indicate matching appetite among employers and workers for more portable skills, and that cross-sector recognition of standards, training, assessments, certification and experience could build a bridge between industries to foster closer collaboration and knowledge transfer. This holds the promise of allowing best practices and insights to be shared beyond industries and creating a multi-skilled global safety-critical workforce that can be moved between sites, specialisms, regions and projects as needs arise. The foundations for this are already in place, with growing synergies between skills across sectors and significant recent progress in developing internationally interoperable standards.

Greater interoperability must be balanced with the need to maintain sector-, role- and environment-specific competence requirements. The goal is not uniformity, but a trusted way of identifying where competence is equivalent, where differences matter and where targeted bridging is required.

As an independent, not-for-profit, industry-led skills organisation with experience of developing globally recognised standards through industry collaboration, OPITO can help turn this shared ambition into practical action.

Working with industries, regulators, training providers and standards bodies, OPITO can help identify common competence, support greater recognition and develop trusted pathways that bridge genuine differences between sectors.

The next step is to move from identifying the confidence gap to testing how it can be closed in practice, bringing safety-critical industries together to map defined areas of common competence and identify where recognition, bridging or sector-specific requirements are appropriate.

 Sectors such as energy and mining already share a common goal of creating safer workforces in high-risk environments. Yet this needs to be matched with a trusted, shared vision of safety that can allow knowledge and skills to travel more easily between them for the benefit of all. 

Case Study



THE CHALLENGE

Developing a mobile, multi-skilled workforce in APAC.

THE SOLUTION

OPITO worked with one APAC supermajor to develop internationally recognised qualifications that allow its local energy workforce to work safely anywhere in the world.

The project saw its technical training institute offer internationally recognised vocational qualifications in electrical and mechanical maintenance and instrumentation and controls.

THE IMPACT

The partnership has since expanded to cover other transferable skills including a globally recognised, credit-rated Decarbonisation Training Certification which equips workers with the skills to implement decarbonisation strategies on the job across energy sectors and regions. Over 100 workers have already completed the certification, and this could in future enable a consistent approach to decarbonising operations across industries.



Appendix: Methodology

This report is based on a survey of 390 workers and employers across selected APAC markets and high-risk industries.

The research was conducted by a third-party data provider between 8 July and 10 August 2026.

The survey included 65 respondents across each of six countries with established and growing energy and mining industries: Australia, Indonesia, Malaysia, the Philippines, Thailand and Vietnam. The sample also included a broadly even split between employers/operators and workers, with 193 employer/operator respondents and 197 worker respondents, and a broadly even split of 74-80 respondents across downstream and upstream oil and gas, LNG, wind/renewables and mining.

Respondents were manually screened by the third-party data provider to support the integrity of the data collection process and ensure respondents had relevant experience. Employer/operator respondents were screened to ensure they had responsibility for, or influence over, areas such as hiring, HSE or operational decision-making. Worker respondents were screened to ensure they work in, or regularly visit operational sites/high-risk working environments. The survey was conducted in English and local languages, where appropriate, to enable participation across all surveyed markets.

This research is not intended as an exhaustive study of the APAC workforce or all safety-critical industries. Findings should be interpreted as indicative insights into selected markets and sectors, rather than a fully representative view of all. As the first iteration of this research, the findings establish a useful baseline for understanding workforce confidence, trust, competence and mobility. Further research could build on this by expanding the sample size, adding more markets and sectors, and exploring demographics in more detail. Due to the limited sample size, the report avoids drawing conclusions about specific sub-groups, such as workers in each sector and country. Percentages have been rounded to the nearest whole number and may not always total 100%. For questions where respondents were able to select up to three answers, totals may exceed 100%.

Survey demographics

The research surveyed 390 employers/operators and workers across six APAC markets and five safety-critical sectors. The breakdown below shows the composition of the respondent sample; given the sample design and size, it should not be treated as representative of the wider APAC workforce.

RESPONDENT CHARACTERISTIC	n	% of total
Total sample	390	100%
COUNTRY		
Australia	65	17%
Indonesia	65	17%
Malaysia	65	17%
Thailand	65	17%
Vietnam	65	17%
Philippines	65	17%
RESPONDENT TYPE		
Employer / operator	193	49%
Worker	197	51%
SECTOR		
Oil and gas – upstream, exploration and production	80	21%
Oil and gas – downstream, processing and refining	74	19%
LNG	78	20%
Wind / renewables	80	21%
Mining	78	20%



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