



Immersive Training in the Oil & Gas Industry

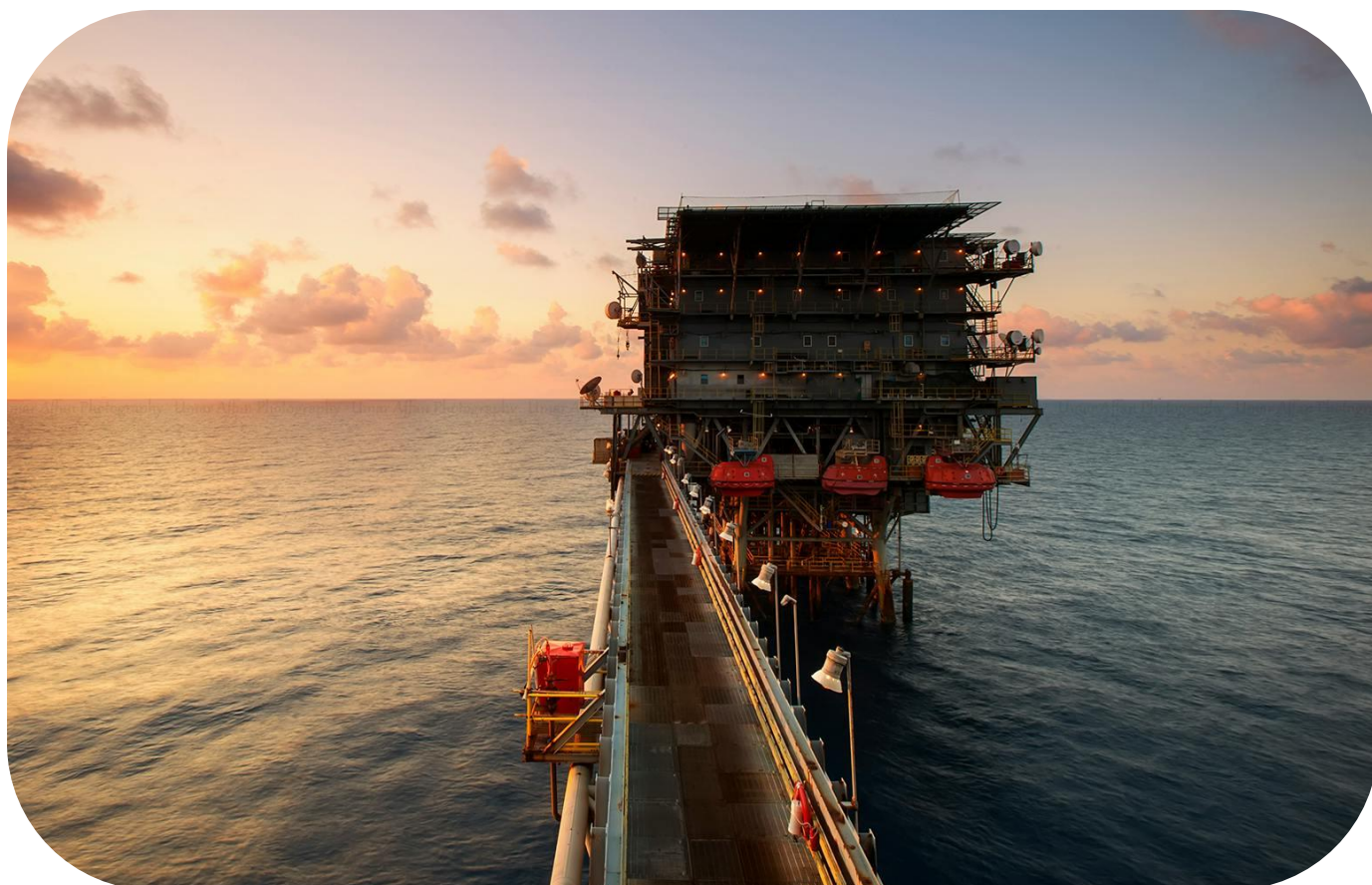
Building Safer, Smarter Workforces with Skills^{VR}

2026



Industry Context

Oil & gas companies operate in one of the world's most high-risk environments—offshore platforms, drilling rigs, pipelines and processing facilities demand extreme safety, technical precision, and consistent competency across global workforces. With staff dispersed across remote sites and roles requiring rapid mastery of complex, dangerous tasks, traditional training (classrooms, mock-ups, on-site drills) is costly, time-consuming and often difficult to scale.



Virtual Reality (VR) offers an industry-ready solution: simulating hazardous equipment, emergency incidents (gas leaks, blow-outs, fire) and procedural workflows in a safe, repeatable digital environment, enables these teams to **build muscle memory, assess performance and issue verified credentials before workers step on-site.**



The Challenge

Oil and gas operations are among the world's most hazardous and technically demanding environments—spanning offshore rigs, refineries, and processing plants—where even a small error can cause catastrophic safety incidents, costly downtime, or environmental harm.

The sector now faces a convergence of workforce, safety, and operational challenges:

- High-risk, high-consequence operations demand zero-error performance. Yet human and organizational factors account for nearly 80% of offshore incidents, according to the International Association of Oil & Gas Producers ([IOGP, 2023](#)).
- Ageing workforce pressures are accelerating. According to [SHRM](#)'s Preparing for an Aging Workforce: Oil, Gas and Mining Industry Report (2015), approximately one-quarter of the U.S. oil, gas, and mining workforce was aged 55 or older, reflecting a broader demographic shift toward an aging labor force projected to reach 26% by 2022. This generational shift intensifies the need for rapid, scalable digital upskilling.
- Inconsistent training delivery across multinational sites and contractors leads to variable safety performance.
- Instructor dependency and lost productivity raise costs. Traditional simulator and classroom training removes staff from operational duties for days, reducing efficiency and continuity.
- Remote and offshore environments often limit access to consistent training, while the incoming generation expects immersive, digital learning experiences that replicate real-world challenges.

Traditional methods cannot reproduce the stress, environmental complexity, or split-second decision-making of real oilfield conditions. Critical procedures—such as emergency shutdowns, confined-space entries, high-pressure valve operations, and hydrocarbon leak response—are too risky or costly to practice live.

A new approach is needed, one that allows personnel to safely rehearse realistic, measurable scenarios, reinforce safety critical behaviors, and ensure training is consistent, data-driven, and accessible anywhere, even without internet connectivity.



The Solution

Skills^{VR} introduces immersive, scenario-based immersive training to simulate critical oil and gas operations **safely and consistently**. Our **all-in-one platform** allows HSE teams to deliver, monitor, and update training across multiple sites—without interrupting production.

Key features include:

- **Realistic simulations** for hazard identification, confined space entry, emergency shutdown, and equipment maintenance.
- **Offline and MobileVR delivery**, ideal for offshore and remote environments.
- **Digital credentials and analytics** that verify competence and track performance.
- **Custom content creation** through the Skills^{VR} Content Creation Kit (CCK), enabling in-house teams to build and adapt modules rapidly.
- **Integration with enterprise training systems** for compliance tracking and workforce analytics.





Proven Success Across Sectors

The Skills^{VR} method has been successfully deployed across industries with comparable safety and operational requirements:

A leading **civil construction company** trained 650 workers in hazard identification, PPE use, confined spaces, trench work, and working at heights. On-site VR modules accelerated onboarding, issued over 30 VR safety passports monthly, reduced downtime, and achieved national recognition. In-house module creation expanded coverage to complex scenarios.



A major **distribution operator** uses Skills^{VR} for forklift handling, aisle safety, hazard awareness, and process compliance. Staff practiced safely in realistic scenarios, improving visual awareness by up to 67%, standardizing skills across sites, and reducing real-world incidents.



A **meat processing facility** implemented Skills^{VR} 360° VR onboarding for PPE, hazard identification, and process safety. Staff could train safely before entering production floors, improving situational awareness, compliance, and confidence while reducing incidents.

A **regional council** uses Skills^{VR} to train residents in earthquake and tsunami response with realistic scenarios, interactive decision-making, and full cultural accessibility. Over 2,000 residents improved knowledge retention by 67% and response confidence by 70%, with measurable community impact.

A major **healthcare provider** uses Skills^{VR} to simulate post-operative patient assessments, helping learners practice clinical decision-making and bias recognition in realistic hospital settings. Structured feedback improved reasoning, awareness of bias, and confidence at scale.

Across these sectors, Skills^{VR} demonstrates that immersive training reduces downtime, cuts costs, and builds safer, more capable teams. Applying this model to high-risk industries such as oil and gas can standardize outcomes, accelerate onboarding, and strengthen safety culture across complex environments.



Real-World VR Data in the Oil & Gas Industry

[A recent report](#) states that the global training market for oil & gas was valued at **USD 1.98 billion in 2024**, underscoring the sector's growing investment in workforce competency and safety training.

In mining, implementing VR-based training programs has led to a [43% reduction in time off due to injuries](#), highlighting the effectiveness of immersive simulations in preventing workplace accidents.

A 2020 PwC study found VR training participants completed programmes [4 x faster than in-person and 1.5 x faster than e-learning, with retention up to 80%](#) one year post-training compared to ~20% for traditional methods.

Insights note that VR enables remote, [consistent delivery of training modules](#) across sites, reducing downtime, travel, and instructor reliance in oil & gas settings.





The Opportunity for Oil & Gas

Adapting these proven frameworks, SkillsVR can help oil and gas companies:

- **Enhance safety culture** through repeatable, high-fidelity training.
- **Reduce downtime and trainer dependency** via portable, on-demand learning.
- **Provide equitable access** for offshore and remote staff through Wi-Fi-free MobileVR.
- **Standardise training outcomes** across global sites and contractors.
- **Accelerate onboarding and certification** with measurable, data-backed outcomes.

Immersive training produces a **better trained, more confident workforce** ready for the future of energy operations. Skills^{VR} is ready to collaborate with oil and gas partners to co-design simulations aligned with international HSE standards (e.g., ISO 45001, API RP T1) and to deliver **scalable, sustainable, and transformative** workforce capability across the sector.





Skills^{VR} is a global leader in immersive learning technology, delivering VR and mobile-based training solutions that transform how organisations build capability, confidence, and compliance.

With headquarters in New Zealand and operations across North America, Europe, and the Middle East, Skills^{VR} partners with governments, Fortune 500 enterprises, and educators to co-design scalable, data-driven training ecosystems.

Our platform combines realistic simulations, mobile access, and digital credentials to make training measurable, inclusive, and effective. Clients use Skills^{VR} to accelerate onboarding, improve safety outcomes, and verify skills in industries ranging from construction, logistics, and healthcare to security, education, and public safety.

Contact us today to schedule a demo, explore your training options, and start building safer, smarter, and more confident teams.

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