

IADC DEC Q1 2022 Tech Forum, “Drilling Workforce of the Future”

Wednesday, March 30th, 8:30-11:45am

How can drilling engineers prepare for what may be long-lasting changes in our industry in relation to an effective workforce? In this forum, we would like to explore potential gaps between current industry problem-solving techniques and those of the future, how drilling teams may be organized, repurposed and reshaped, and the most effective tools and skills needed to address future needs.

Special thanks to our event host Wild Well Control!

Agenda:

08.30-08.35 Welcome – Matt Isbell, Chairman, and introduction to event – Michael Edwards and Celeste Shaffer, DEC Board members

08.35-08.55 “**Human-Technology Symbiosis: Workforce is Key,**” Evelyn MacLean, International Association of Oil and Gas Producers (IOGP)

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It is predicted there will be a global skills shortage by 2030 – do we have a comprehensive workforce strategy for our industry? This isn’t a time to sit back and wait for events to unfold. To be prepared, we have to understand it. As an industry, the workforce topic warrants a unified dialogue to underpin the skills and talents needed to deliver energy solutions that are socially and environmentally responsible. Do you place equal importance on workforce versus safety, cash flow and technology? If not, why not? Our issues are not limited to attracting new talent but equally relevant to retention and re-skilling of our current workforce. This presentation will also shine a light on the games that people play to deflect from their own narratives. When we hold up a mirror to ourselves, it can ignite a compelling opportunity to remove self-imposed barriers to change.

08.55-09.15 “**Attracting and Developing our Most Valuable Assets,**” Willie Thompson, Hess Corporation

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Change: the constant that we have seen and should be prepared to meet but occurs at a rate faster than we expect. People are required to navigate the changes affecting our industry to find ways to continue delivering oil and gas to support the growing global energy need. How we attract, train, develop, and leverage talent impacts our ability to flourish in high change environments. Leaders embrace the skills, behaviors, and mindset as attributes needed to adapt to challenges. Identifying and developing these qualities are the keys to our industry’s future.

09.15-09.35 “**Building a Team Ready for Tomorrow,**” Brett Schellenberg, Nabors

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Innovating drilling technologies have delivered incremental performance improvements for operators but have also greatly impacted the workforce on the rig and in the office. Automated

and digital technologies have resulted in several key changes at the rig-level, the first being safety. There are obvious safety benefits to automation like removing personnel from the red zone, but there are "softer" benefits too. For example, process automation enables the driller to serve as more of a project manager. When repetitive tasks are automated, the driller can spend more time observing and mentoring crews. More automation also enables a higher quality of life outside of work, which improves employee retention. With the increase in demand for technology, teams in the office have also had to adapt. Historically, contributors to technology development had singular skillsets like rig controls or .NET. Now, technical teams are interfacing more with operators to understand how technology is a solution to a challenge they're facing. This requires training on customer engagement and more drilling knowledge.

09.35-09.55 “Blended Learning – Why It’s a Practical and Necessary Solution for the Current and Future Workforce,” Kim Laursen, Endeavor Technologies, and Ken Smith, Wild Well Control

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As demand for energy continues rising, our industry is facing a great challenge with the new generation of crews entering the scene as the experienced are leaving. “The Great Crew Change” will require training providers to ramp up and deliver efficient and relevant training. The new technologies available are essential tools to support this training. There are endless possibilities and venues where the simulation technology can accelerate the process of increasing competence in the learner. But can technology stand alone or is there more to it? What are the intangible benefits of the in person learning environment and how do they augment the training? We will present how the new technologies together with training can fill the need of the industry

09.55-10.10 Break

10.10-10.30 “Is Drilling Workforce Change Far from Academic?” Robello Samuel, Halliburton

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The changing environment, demography of the drilling workforce and technology advancements require urgent reforms in the drilling industry. Restructuring of the petroleum industry due to the protracted downturn is also accelerating the pace of change. The drilling workforce competency, therefore, must also change. Tomorrow's drilling workforce will need the construct of both abstract and experiential learning, not only in formulating the problems but also solving them. In alignment with the industry, the talent pipeline from the educational system has to be in lockstep pace. The framework of questions to be addressed include: What is the fundamental problem in the present drilling workforce? Is there any problem with the petroleum engineering students’ education? Is the drilling workforce aligned with the latest developments, such as edge devices, sensors and data handling, machine learning and artificial intelligence? The answer to these questions begins with us and our leadership. This presentation addresses these questions by proposing a new approach to training new drilling workforce.

10.30-11.45 Interactive Q&A and panel session

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All of our presenters will come together in a panel session to answer audience questions and engage in an interactive discussion. Moderated by DEC Board members Michael Edwards and Celeste Shaffer.

11.45 Adjournment