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It's time to go to the gym

As a kid, I watched TV ads featuring the "Godfather of Fitness," Jack LaLanne. In 1936, Mr. LaLanne opened one of our nation's first fitness gyms in Oakland, Calif., with the goal of helping people build muscle and become healthy and fit.

Since the last significant crude price collapse in 2008, our industry has made some impressive technological advances, such as multi-stage hydraulic fracturing, walking drilling rigs, and improvements in subsalt imaging. But while enjoying high commodity prices that seemed to last forever, our industry got flabby and complacent. When OPEC decided in November 2014, not to cut production to boost oil prices, U.S. producers, especially those in unconventional plays, reacted to the new environment by reducing the number of wells drilled and idling rigs. The impact propagated quickly through the supply chain. Many companies have reduced skilled staff and will struggle to replace them, once the price recovers.

This slowdown in activity is the perfect time to embrace Jack LaLanne's mantra: "Go to the gym." It's time to build technological muscle with investments in research, to ensure that we remain healthy and fit. And it's time to cross-train our staff to build their intellectual muscle to take broader roles, just as athletes cross train in the gym to improve their overall performance.

Investments in research and technology occur at every stage of the value chain, including exploration, appraisal, development and production operations. To translate technologies into value requires a workforce that can operate across multiple disciplines. Hess is cross-training staff in lean, continuous improvement processes, and standard work processes, to build strong operating muscle. Hess is investing in advanced technology with universities and private businesses, and then applying these advances with lean processes. This has allowed us to increase production, reduce cycle time, and lower operating costs.

No one knows when supply and demand will be balanced, and commodity prices will stabilize. But investing in technology and staff development will improve efficiency and create value. It also will position the industry to be healthy when the turnaround occurs.

Investments made today, both in people and technology, will ensure that the industry has the operational muscle and technological edge to deal with challenging opportunities. Having the right people, in the right jobs, at the right time, is imperative to achieving success. Developing a workforce that is flexible and cross-trained builds operational efficiency. Through technology investment, and Hess's lean culture, we have increased production and become more capital-efficient, while still fostering environmental stewardship. Technological advances will enable access to challenging areas, such as deeper-water HPHT exploration targets, and will improve recovery efficiently to unlock liquid-rich unconventional resources. The real muscle, however, will come from the creative minds of our workforce.

DOUGLAS N. VALLEAU is acting chief geologist and director of Unconventional Technology at Hess Corp., responsible for advancing unconventional reservoir understanding and performance. He manages technology research efforts addressing geology, geophysics, geochemistry, reservoir engineering & simulation, geo-cellular modeling, SCAL research, petrophysics, completions and stimulation technology, materials and nano technology, and environmental impact. He received a Master's degree in geoscience from the University of Florida in 1977. Prior to joining Hess in 2011, Mr. Valleau held various management and geoscience positions with ConocoPhillips, Burlington Resources, Maxus, BHP, Monsanto and Gulf Oil. While at ConocoPhillips, he was part of the core team that discovered and developed the firm's Eagle Ford play. His professional affiliations include SEG, SPE, AAPG, Society of Professional Well Log Analysits, and the Houston Geological Society. Mr. Valleau is a certified petroleum geologist, registered in the State of Texas, and a certified AAPG petroleum geologist. He co-developed an analytical protocol for shale gas analysis, for which a U.S. patent was awarded.

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