

Oil and Gas

Novel Wells Technologies



CONTEXT

To meet global energy demand, the oil and gas industry will need to drill, complete, operate, and abandon many more wells over the coming two decades than it has since its inception. This must all be done safely and with far greater efficiency, which requires developing innovative technologies and smarter ways of working.



WHAT WE ARE LOOKING FOR

We already have a strong performance in wells, but we strive for continuous improvement and to become best in class in all we do. Therefore, we are currently seeking novel well technologies that increase safety, reduce ultimate development costs, increase recovery, and minimize well intervention. The technology must be original and ground breaking; have the potential for significant and tangible benefits beyond existing technologies; and have a broad applicability across the industry.

The proposals must be capable of addressing specific oil and gas industry issues and should include a clear description of the business case. The basic science must be well understood, but the concept could still need to be proven through modeling or testing in a simulated operational environment.

If your company offers a technology that fits those characteristics but is deemed too mature or proven, we will still evaluate it, and where appropriate, will expose the technology at Shell for replication.

Typically, technologies with a TRL 2-5 (as per [API 17N](#)) are the best candidates for this call. Please provide a clear description on how you will reach your "Proof of Concept".

IN SCOPE

- Technologies that will drive safety performance.
- Technologies that reduce ultimate development costs, e.g. by increasing operational efficiency, driving down non-productive time and standardizing well designs.
- Technologies that increase recovery, e.g. through increased reservoir contact.
- Technologies that minimize well interventions by building high-integrity wells.
- Technologies that reduce the abandonment liability of wells.
- Integrated workflows that make use of data analytics and artificial intelligence for optimizing well construction, intervention and producing operations.

OUT OF SCOPE

- Incremental improvements and isolated point solutions.
- Repackaging or improved utilization of existing technologies.

WE APPLY THE FOLLOWING CRITERIA FOR CONSIDERATION:

1. Novel – Is the idea fundamentally different and unproven?
2. Valuable – Could the idea create substantial new value if it works?
3. Doable – Is there a plan to prove the concept quickly and affordably?
4. Relevant (Why Shell?) – Is the idea relevant to the future of energy?

Any information submitted as part of the process must contain only NON CONFIDENTIAL data and information at this stage.

The funding opportunity will be in the range USD 150,000 – 300,000 to progress a “proof of concept” in a phased approach over a period of no more than 12 months. Further development may be supported and or facilitated by Shell depending on the overall outcome of the initial award.

For questions contact GameChanger-Challenge@shell.com