The global plummet of crude prices, shedding almost $50 from the early 2020 benchmarks, has pushed the oil and gas industry to era-defining challenges. We cannot impact oil prices but we can leverage digital technology to increase efficiency across production operations. The argument for moving faster on the digital front is more compelling now than ever before.

The price of oil has always been prone to volatility, yet it appears that the “lower for longer” prices are here to stay. Energy companies will have to prioritize operational efficiency to stay relevant in this period of rapid volatility. The oil and gas industry produces massive amounts of data on a daily basis - but many processes and workflows fail to leverage this data and are simply outdated and inefficient, creating a drag on efficiency.

While the oil and gas industry is relatively mature, digital maturity of the industry is moderate at best. The World Economic Forum suggests that digital transformation initiatives could unlock $1.6 trillion of value in the oil and gas industry with $600 billion being released in the upstream sector alone.

Applying new digital technologies within the production environment can turn raw data into insights - driving improved decisions and providing a competitive edge. From electrification to automation to digitalization, Siemens delivers high-value, unique solutions to today’s production challenges. As an example, our ESP Portfolio provides a range of solutions from electrification to advanced analytics for ESP anomaly detection.
Readily available, high-quality sensors and advanced analytics offer new levels of digital insights and fact-based operational action. In terms of improved efficiency and managing risk, the Siemens line of OPEX-based Solutions-as-a-Service portfolio offers significant benefits, both operationally and financially.

Today, to be successful in delivering value from digital initiatives, it is important to develop a simple, straightforward implementation strategy - Identify, Deploy and Scale.

1. Identify and prioritize use cases based on time to value and value to the business.

2. Deploy “Proof of Value” projects at favorable locations – leverage existing hardware and data sources when possible. Focus on quick deployment of high-value projects.

3. Introduce a digital layer to operations, but scale only when value has been clearly identified, and staff are “bought in” to ensure success.

Conclusion

A well-defined, easily deliverable digital strategy is essential for every company. The internal culture that supports this strategy is equally important, as the data that will generate the results will “move the needle”. Companies do not need to do this alone. While a commitment to digital is imperative, companies should leverage the ecosystem of companies, such as Siemens, to help them navigate the digital journey.

To quote the CEO of a major IOC – “In a complex world, no-one can do everything. We have to trust our specialist partners. I call this collaborating for competitiveness”. Siemens is positioned to work with our partners to deliver the answers needed in the “Digital Age”. We are uniquely positioned to deliver the OPEX-based solutions that minimize capital risk while lowering cost and optimizing both production and workflows. Oil sector expert, Daniel Yergin noted, when the dust settles in the Permian Basin and other American shale fields, the survivors will be leaner and – crucially -- more tech savvy.