Staggering changes are underway on both the demand and supply sides of the oil and gas (O&G) value chain. Due to a combination of factors, demand for oil and coal is expected to peak around 2030. On the supply side, assets such as shale and non-hydrocarbon sources like solar and wind are increasingly eating into oil’s share of the energy mix.

A new paradigm

To succeed in this new world, O&G industry leaders will have radically different thinking along two dimensions.

1. Where to play — the essence of their business, their role in the value chain and the value they create; and
2. How to win — the new operating models they will need to support their chosen portfolios.

The common thread across both dimensions is digital. Digital spurs new opportunities for business and enables new operating models that can transform how O&G companies execute and compete.

Where to play: Using digital to help inform what’s possible

Processes must change and will have to integrate streaming consumer information and connect it in real time to operational decisions, adjusting production of various assets on demand.

Organizations and ecosystems will have to shift emphasis from domain expertise and local workforces to decentralized decision making, global connected workforce with an increasing mix of data scientists and a willingness to share data with the external ecosystem.

Technology backbones also have to change from rigid enterprise architecture-focused systems to more flexible platform-based systems with multiple solutions designed by a more fluid workforce.

How to win — Energy company of the future operating model building blocks

Proponents must change and will have to integrate disruptive consumer information and context it in real-time to operational decisions, adjusting production of various assets on demand.

Operators will have to shift emphasis from domain expertise and local workforces to decentralized decision making, global connected workforce with an increasing mix of data scientists and an willingness to share data with the external ecosystem.

Tactical clusters also have to change from rigid enterprise architecture-focused systems to more flexible platforms for data-sharing with multiple solutions designed by a more fluid workforce.