



Five in 5: Asset management in the energy sector

Trends and challenges with digital asset ecosystems

As more energy organizations embrace the energy transition, it's critical they have the asset management strategies to support success in the Future of Energy. Learn how an ecosystem approach can help energy companies effectively manage both physical and digital assets and see which approaches are producing results in this edition of Five in 5.

1

What are some current challenges that ER&I organizations face in managing their physical and digital asset ecosystems?

Sandy Jones: The biggest challenge is that over time, many have outsourced higher volumes of work to third parties, and we have found that neither asset data capture nor data integrity are at the levels they need to be for regulatory compliance or to extract high-quality asset performance analytics.

Nigel Bell: In the Oil Gas & Chemicals (OG&C) sector, for example, managing an asset from initial procurement through retirement can involve hundreds, if not thousands, of suppliers. A key challenge for both customer and supplier is driving high levels of utilization, as this requires the value chain of activities to be tightly

integrated and coordinated to drive the best possible outcomes—high uptime levels and return on capital employed—for all parties.

Sandy Jones: Adding to the pressure, ER&I companies now have to manage their physical and digital asset ecosystem in a sustainable manner; operating in ways that are greener and cleaner, using less conflict minerals, and engaging more diverse suppliers. They have to be better corporate citizens as well as deliver reductions in operating expense and higher levels of capital efficiency.

Nigel Bell: Company leaders have to figure out how to take the pressure they are feeling from investors, regulators, and the public and channel that into how they run their operations in a way that leads to better environmental, social, and governance (ESG) outcomes.

2

What is a significant change coming to asset management in the energy sector?

Sandy Jones: An important development is digitization of the ecosystem that is performing work on the assets. Whether it is third parties performing the work or a third-party data source being used to provide insights, the trend is toward higher transparency in the workflow process. For years, organizations have been implementing technology point solutions and delivering improvements in finite areas; what still doesn't exist is visibility into the broader, more complex network of third-party suppliers of labor, materials, equipment, and services needed to get work done. Think of the industrial company as the captain of a team it can't see but must trust. The future will be a networked team where the members are able to see each other's work and navigate interdependencies.

Nigel Bell: While the promise of digitizing asset management is great, the cost impact of doing it on your own—being both solution developer and owner—can be significant. Industrial companies do not necessarily want to develop and operate their own solutions; they simply have not found what they need elsewhere. We see an alternative path emerging: There is a role for an ecosystem convener, a coordinating entity that provides visibility, access, and connectivity to solution functionality and spreads the costs across a community that is chasing the same goals. This approach balances the digital ambition and the digital cost burden.

3

Who should be thinking about asset management in the energy sector?

Sandy Jones: This should be a strategic imperative for any asset-intensive companies which are dependent on a myriad suppliers to manufacture, install, and maintain their assets. Within industrial organizations, the ecosystem conversation is happening among C-level executives with the heads of technology, operations, and supply chain. If it stems from a conversation on how ESG can be operationalized, it might even occur within investor relations. The topic may be part of a dialogue on asset replacement, digital strategy, productivity improvement, workplace safety, or plans to provide more ongoing transparency around ESG performance.

Nigel Bell: If we center the conversation on the parties involved across an asset's life cycle, it should include the company that is trying to operate and extract value out of the asset and the suppliers that are supporting those

4

Is there a preferred approach for developing and managing a physical and digital asset ecosystem?

Sandy Jones: Today's companies are trying to orchestrate their asset management activities and incorporate digital ideas as they go. But laser-specific solutions for incremental improvement are not providing a dramatic step change. Asset-intensive companies and their suppliers still operate in silos with limited information sharing. Many times, they still view the relationship as competitive instead of being part of a single team whose goal is to complete the work and record good information about the asset. To change this, they need a digital ecosystem strategy to weave a contiguous thread through the asset life cycle so that their equipment, systems, and people—the complete ecosystem—are connected by real-time data insights and working together toward seamless efficiency.

Nigel Bell: Limited collaboration between companies and their suppliers, lack of data transparency, disparate technology, and suboptimal matching of work to workers at the point of need are constraining efficiency gains for asset-intensive organizations. To illustrate, from 1990 to 2010, productivity in the utilities sector increased 88% as companies that moved from analog to digital ways of working saw significant improvements in efficiency and utilization. From 2010 to 2020, however, they only saw productivity go up by 2%.¹ What this means is that they've extracted as much value as they can out of the current ways of working, even with digital solutions.

There has to be a step change to unlock the next evolution in productivity and value creation. For a company to develop the necessary asset management solutions on its own would be an extremely difficult and costly endeavor. What's needed is an ecosystem approach with someone in the middle of the company-supplier relationship who is thinking about this day in, day out; someone who knows how to navigate and connect an ecosystem of different technologies and disparate systems, and to collect, process, and share data in an integrated, seamless manner. Someone who

is looking at the changing regulatory and sustainability landscapes to determine how the solution can be evolved continuously relative to those and other external pressures.

Sandy Jones: When Nigel and I talk with clients they are extremely receptive to our next-generation point of view, especially because it includes a very hard look at tracking ESG—not just rearview-mirror metrics, but how to look through the windshield; how to inform workforce so everyone has the information they need to make better choices and incorporate ESG inputs throughout their operational workflow.

5

What initial steps should a company take when beginning its journey to asset management in the energy sector?

Sandy Jones: The first step is to develop an ecosystem strategy, and that can be harmonious with a digital strategy. Determine what you want your role to be

strategically within the ecosystem—do you want to be a leader, a convener, or a participant? Then concept test the logic and pilot your way to the next generation. Be sure to take time to formulate the plan—from making changes to your operating model to identifying where it should be implemented first and then later.

Nigel Bell: Recognize that you are part of an ecosystem and define its composition. Who is in there with you? How should you interact with your ecosystem to efficiently manage myriad of assets via a new, networked arrangement? Next, figure out your greatest pain point or opportunity area based on the type of work that you're trying to perform with those assets. Then take that pain point or opportunity and, using a team-based mindset, start connecting your ecosystem participants, systems, and data in a way that delivers value to everyone in the value chain.

Sandy Jones: Well said, Nigel!

Want to learn more about ER&I asset management? Check out these Deloitte resources:

[Asset Ecosystems | Deloitte US](#)

Harness the power of networks outside your four walls

[A Roadmap to Accounting for Environmental Obligations and Asset Retirement Obligations | Deloitte US](#)

[Digital Utility Asset Management | Deloitte Insights](#)

Building the backbone of the energy transition

Get In Touch:

Sandy Jones

Principal
Asset Ecosystem Industry Platform Leader
Deloitte Consulting LLP
sanjones@deloitte.com

Nigel Bell

Specialist Leader
Industrial Marketplace Leader
Deloitte Consulting LLP
nigelbell@deloitte.com

¹ US Bureau of Labor Statistics, Utilities Sector Productivity Index (2021).

About Deloitte

As used in this document, "Deloitte" means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the "Deloitte Network") is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.