Servitization and the demand for digital transformation in the energy industry

Highlights from an IFS global survey of energy & utility organizations

The utilities and oil and gas sectors are fast-evolving. It is no longer sufficient for businesses to concentrate purely on selling the same products and services that have generated profits for the last 100 years. Rather than the purchase of energy or water being the end of the relationship, companies in these highly regulated sectors must now provide innovative and compelling new services that enable them to extend their relationships and grow their revenues.

Energy producers must not only meet global climate change goals and reduce their own carbon footprints, but they must also meet the changed expectations of customers demanding renewable power and more sophisticated services. Utility companies too, whether supplying power or water, must address their customers' sustainability requirements while providing important new value-added services.

Pressure in the energy-related industries comes from heightened competition, the increase in electric transport, the shift to distributed power generation, and demand from consumers and commercial customers for data, insights and applications that enable greater efficiency or allow them to design new business processes.

All these pressures mean energy and utility companies must shift to a model of servitization, where insight and quality of service sustain longer and more profitable commercial relationships. But this shift to servitization has to be underpinned by digital transformation initiatives – it will not happen spontaneously.

"It requires energy and utility companies to transform their own processes and extract the data and insights that power new and enhanced services."



This requires implementation of new asset and service management and resource planning software to drive operational efficiencies. It is a challenging process, especially given the need to drive through sustainability initiatives and manage rising global demand and fluctuating prices.

To throw a spotlight on the state of digital transformation in energy companies and utilities, IFS conducted a survey of over 600 senior decision-makers in the UK, North America, the Nordics, Middle East, and Japan, Australia and France. Its purpose was to gauge sentiment on the current evolution of the sector and examine the challenges in implementing and optimizing the use of current enterprise software, along with key drivers and inhibitors for adoption of enterprise software solutions.

Energy and utility companies want tighter technology integration and better project management

"Almost a third of energy companies' digital transformation efforts are driven by need for tighter integration and collaboration"

One of the main findings from the research is that in the energy and utilities sectors, companies want to use enterprise software systems such as enterprise asset management (EAM), enterprise resource planning (ERP) and mobile workforce management (MWM) to achieve tighter integration and collaboration across different functions. More than three-in-ten (31 per cent) have these ambitions.

In addition, the respondents also want to improve project management, seek improved asset lifecycle management and greater operational efficiency.

What we see, broadly, is that nearly a third of companies recognize they can deploy enterprise software to radically change their organizations, showing the right level of ambition and understanding.

It seems there is a wide range of aspects that respondents think would have a big impact on their ability to deliver new services and/or products and outcomes from a digital transformation standpoint, below shows the aspects respondents think would have a big impact on their business:



Sustainable energy



New business models



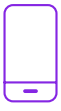
Asset management strategy



Customer experience strategy



Resource optimization



Field service management

What is preventing energy companies from adopting technology for digital transformation?

The research revealed, however, there are still significant barriers to technology adoption, especially around the inability to define and measure the ROI of enterprise software systems like EAM and ERP.

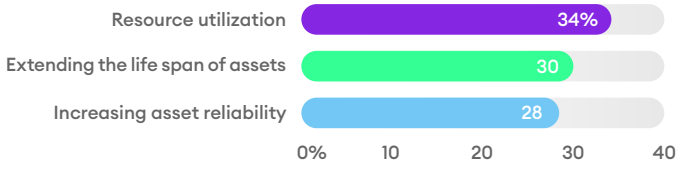
Inevitably, there are also internal reasons that hold organizations back, such as lack of consensus about which way to go, or what to adopt, among leadership teams. The other barriers to adoption they cited included lack of clarity about the resources and skills required and poor business cases which make adoption look too expensive.

Nearly three-in-ten say the chief barrier is the inability to accurately measure value from investment during the digital transformation journey.

A very high proportion of respondents (79%) were quite specific that it was important to them for enterprise software to have the embedded capability to set and measure critical KPIs. Being able to measure value quickly and accurately is clearly a vital requirement for many senior decision-makers right across oil, gas, renewables and the utilities.

Specifically looking at which KPIs are critical to set and measure within enterprise software, respondents said they would like to set and measure improving resource utilization, extending the life span of their assets and increasing asset reliability.

Critical KPIs to set and measure within an enterprise software



How are companies approaching digital transformation?

We know that to advance towards full servitization, organizations must implement advanced software and get ahead with digital transformation. But in the research a mere 17 per cent of companies view themselves as having completed their digital transformation journeys. That may indicate a growing understanding of the scale of what is possible with digital transformation, as well as the persistence of barriers. Companies may now have a better view of where digital transformation could take them and know they still have a long way to go.

Also, most respondents (65%) from both the Energy, Oil & Gas sector and the Utilities sector are more likely to approach their digital transformation journey one function at a time, it seems respondents from the Energy, Oil & Gas sector are more likely to start with back-office finance and HR (16%) compared to those in the Utilities sector (11%).

Respondents from the Utilities sector are more likely to start with asset management solution (20%) compared to respondents from the Energy, Oil & Gas sector (15%).

The research also found that companies have varying approaches to their digital transformation projects, ranging from transforming one function to the minority who have set out to transform multiple functions simultaneously.



57%

respondents said their organization's primary approach to optimize the digital transformation journey is to 'look for a composable enterprise platform that will support their entire digital transformation.

Emerging technologies to the fore

There is a strong demand for emerging, innovative technologies across the energy sector. Respondents from the Energy, Oil and Gas sectors say all emerging innovative technologies are important to their digital transformation strategy.

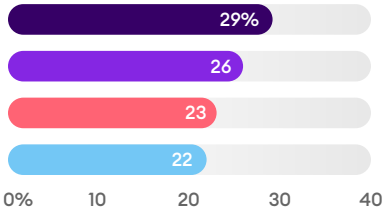
Almost three quarters (74%) of respondents from the Energy, Oil & Gas sector said augmented reality is important[1] for their digital transformation strategy, whereas just over 3 in 5 (62%) respondents from the Utilities sector said the same.

Top 3 innovative technologies for energy companies' digital transformation strategies

- Data Analytics
- Virtual assistants
- IoT

Improving customer experience is slightly more likely to be the biggest focus for respondents from the utilities' sector compared to respondents from the Energy, Oil and Gas sector. Research reveals that respondents from both Australia and the UK seem to have slightly more of a focus on improving customer experience, compared to respondents from UAE, Japan and USA.

Automating Customer Experience



29% are in the design stage of automating customer experience

26% of respondents are currently at the stage where they are seeing the value as customer service is well-established in their business

23% of respondents are in the internal engagement stage across the business

22% respondents are at the stage where they are designing what automated customer experience means for their business

The adoption of advanced asset management solutions and achieving sustainability goals

More than a third of organizations (37%) list asset management strategies among the digital transformation outcomes that will have the biggest impact on their company.

Given the current pressures on the energy sector, tools that help maximize uptime and drive efficiencies through enhanced asset management are key.

When respondents were asked to consider what they want from an asset management solution, improved maintenance is followed in order of importance by scheduling and dispatch (71%), improving supply chain management and reducing inventory costs (70%), mobility (69%) and support for compatible units (69%).



74%

respondents say it is important an advanced asset management solution gives them improved maintenance, moving from scheduled to predictive asset maintenance.



44%

of energy & utility organizations that have set themselves sustainability goals, want to invest in more energy-efficient assets and infrastructure.

From a digital transformation perspective, 38% see sustainable energy as having the biggest impact on their company followed by new business models and asset management strategy (both 37%).

Almost a quarter (23%) of respondents said they have hit their first sustainability goal and milestone, while almost a quarter (24%) unfortunately missed their first sustainability goal and milestone and are re-planning. For those respondents who do have sustainability goals, top three ways to achieve sustainability goals include investing in more energy efficient assets and infrastructure, engaging the customer and supplier in meeting these goals and establishing an ESG team.

Conclusion

What this research has revealed is, although many companies in the energy and utilities sectors are progressing towards digital transformation and the goal of servitization, most are still held back.

One of the key issues is the inability to define and measure how they will obtain return on investment from implementation of technologies such as EAM, ERP, MWM, analytics and the internet of things (IoT).

Fortunately, these are barriers that more advanced software providers are overcoming, especially through the development of composable platforms.

IFS recognizes that technology is nothing without measurable value. It is important that product developers articulate the value of the solutions they are building to C-suite decision-makers. Once leadership teams are confident that they can set targets and use meaningful KPIs very easily, the energy and utilities sectors are more likely to advance the transformational change that will fuel new services, more sustained relationships, and greater revenues.

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