

Whitepaper

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DIGITALIZATION, Where to start?

The first step into digitalization is to put your knowledge workers at the center and make the organization fit to adapt to the change.

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SUMMARY

Digitalization is the current buzz word in the Oil and Gas industry. Companies are putting together work groups focusing on digitalization, and are spending heavily on investing in new technology.

Still, many companies are facing challenges utilizing the new technology to its full potential. What does it take to make a successful transformation to the new world of digitalization, and where should you start?

This paper verifies that in order to succeed with digitalization, companies must make sure they have the right people and organization to implement it. A digitalized execution model will require a new organization, where people are knowledgeable and motivated to make the change. For large organizations this requires a data driven approach to project staffing, and the first logical step is therefore to digitalize the project staffing process itself.

This is the essence of understanding that organization is a fundamental digital enabler.

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DIGITALIZATION,

Where to start?

In almost every industry, companies are looking into digital transformation of their business. Responsible executives are putting together a digitalization strategy to secure the sustainability of their business, and to ensure required agility when, or if, disruption occurs.

We can all agree to the fact that digitalization is here, gaining momentum, and most likely will change our business models.

Like all revolutions, it offers big gains to the winners, and extinction to the losers.

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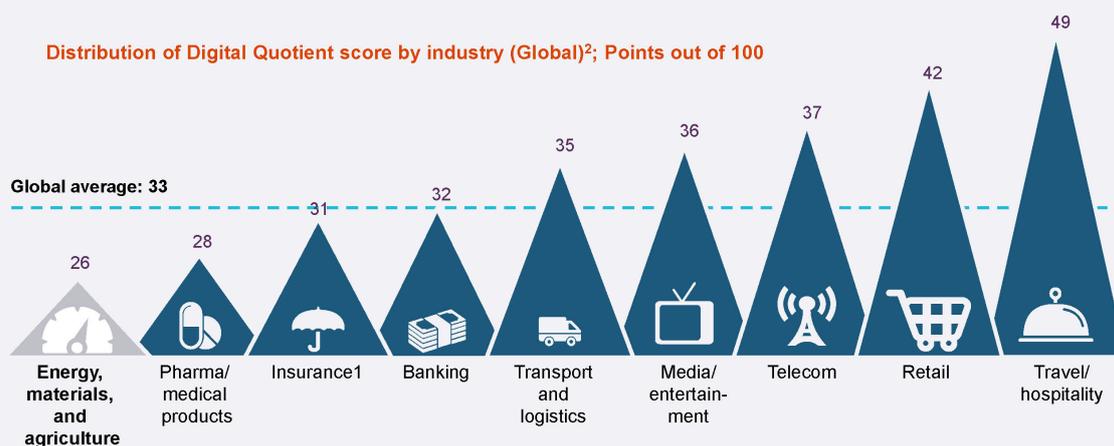
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The Oil and Gas industry is lagging behind in the digital transformation

In the first digital transformation in the 80`s and 90`s the Oil and Gas industry were pioneers. Long before phrases like Big Data and Internet of Things [1] were common, the Oil and gas industry were using 3-D seismic and advanced process control for operations. Now, with Industry 4.0 and digitalization entering the stage, the Oil and gas industry is one of the slowest industries to implement digitalized work processes.

the energy sector is lagging behind in digital transformation



Source: McKinsey 2016

Because digital capabilities are closely linked to innovation, growth, productivity, and even business model disruption, addressing this digital gap should be high on the agenda for the Oil and Gas industry.

Is the Oil and Gas industry ready for the digital transformation?

The industry experts at McKinsey released a report last year, stating that the

"Oil and Gas industry is tailor-made for this transformation: operations typically span multiple regions, with heavy capital investments and extended supply chains. The visibility and clarity delivered by digital technologies and advanced analytics can give executives unprecedented, granular views into operations, increase agility, and support better strategic decision making. Digital enablers, from process digitization to robotics and automation, can also help realize this potential by supporting processes in dynamic ways." [2]

One of the key challenges to digitalization in oil and gas is the long life-cycle of production facilities and assets, especially offshore. The high cost of offshore activities creates a threshold for embedding new technology, for example the Internet of Things, outside the regular upgrade cycle of equipment. This aspect may not be fully appreciated by McKinsey's conclusion.

People are the key enabler

The new digital divide isn't about a reluctance to invest in equipment and systems; most sectors and companies now spend heavily on new technology. The gap is in the degree of digital usage and utilization of new technology. The gap is even wider when it comes to digitalization of the workplace.

In leading sectors, digital and mobile aids help workers do their jobs more efficiently, and routine tasks are digitized at the same time as new digital jobs are created [3]

The people dimension of these transformations has emerged as the key to unlocking value and ensuring the sustainability of the changes. [4]

Digitalization of work processes is about improving the efficiency of the way we work by reducing the time spent on manual and repetitive tasks, where possible. This means more time can be used on innovation for your knowledge workers. Automation in the office space (algorithms) is more demanding than automation on the production floor (physical robots), and this will have a big impact on "office". When introducing technology that replaces human effort, it demands a lot more competence from the personnel left to operate it.

Have executive management understood the fact that digitalization requires a change in organizations and how we work?

This is what we have learned

Promineo's experience, after working with digitalization of work processes and cost management in the Oil and Gas industry for almost two decades, is that one of the key reasons so many companies are having challenges utilizing the true benefits digitalization can bring, is the lack of attention for the essential human content.

You can have the greatest technology in the world, but if no one knows how to use it nothing is achieved.

When implementing a cost management software across multiple companies, we found that it could potentially reduce 40-60% of the workload, and reduce the time of preparing an invoice back-up from 7 days to 4 hours.

Prior to using this technology, a company may have used 3 people, one doing compensation, one doing cost and one managing the contract.

Using the new technology this could be reduced to one person, but only if that person had full detail understanding of all previous functions and the new technology on top of that.

And herein lies the key challenge.

On a number of occasions, we could observe that due to lack of knowledge and motivation the software was not fully implemented, and the customer was not able to access the full benefits the software can provide.

Helping the customer go those last few miles to get full benefit often became very challenging, because it meant challenging the perceived subject matter experts on how they were doing their job.

Digitalization of the work place will transform, and perhaps revolutionize, how we staff projects.

When 10 people contribute to a work process they can get away with having full understanding of their part only, but when 4 people are left to run the automated version they must have the subject matter knowledge of all 10, and then understand the new technology on top of that.

Companies must find people with the right skills, and manage the shift to a culture that's willing to carry out the effort. In other words, they must transform their entire organization. [5]

We need to rethink the project organization chart, both what people are doing and what competence it requires to succeed.

So; where should we start?

To succeed with digitalization, companies must figure out how staffing of projects using the new technology compares to how projects are staffed today. Therein lies the key to understand required changes to the workforce, and the first step into digitalization is to put your knowledge workers at the center and make the organization fit to adapt to the change.

For large organizations this requires a data driven approach to project staffing, which does not appear to be in place today.

In a survey Promineo made in 2016 we found that of the companies interviewed, 68% currently used traditional spreadsheets (specifically Excel), 20% had invested in internally designed software systems and 12% used a Commercial Off-The-Shelf (COTS) product for managing their workforce. When discussing what worked and what did not, it became apparent that a lack of information or low-quality information was directly related to the tools being used. [6]

Executives that make their organizations more digital will be well positioned to pursue new growth opportunities and implement new technology.

"Enterprises must focus on enabling people—consumers, workers and ecosystem partners—to accomplish more with technology. They will have to create a new corporate culture that looks at technology as the way to enable people to constantly adapt and learn, continually create new solutions, drive relentless change, and disrupt the status quo. In an age where the focus is locked on technology, the true leaders will, in fact, place people first." [7]

Only the organizations that can re-configure themselves to be fit for the digitalized version of work processes will succeed and experience the true benefits digitalization can bring to your company.

A digitalized execution model will require a new organization and a change in work processes, where people are knowledgeable and motivated to make the change.

The first logical step is therefore to digitalize the project staffing process itself.

Digitalization starts with your people.