

HEALTH WEALTH CAREER

**START BUILDING
YOUR ENERGY
WORKFORCE FOR
THE FUTURE, TODAY**

ENERGY

Most large organizations worldwide realize that digitization, automation and artificial intelligence have arrived. It's no longer a question of "if" or "when" they'll make an impact on production, innovation and HR. This Fourth Industrial Revolution is here and is accelerating at a mind-boggling pace. But while most technology-heavy industries are embracing this future, many in the energy sector are waiting — but that could be a costly mistake.

Energy companies historically have been relatively cautious and reactionary when considering strategic changes. The cyclical and volatility of energy prices were good reason for that approach. For years, the traditional and economically sound course of action was to pay a premium for talent in times of rapid expansion and high energy prices and, conversely, hold steady or trim back during downturns.

That was then, when talent and business model trends changed by the decade — not at today's frenetic pace. This is now, when the workforce is aging out or simply tired of boom-bust hiring, new technologies are changing many roles, the industry is competing with many other industries for the brightest and best tech-savvy employees to drive the industry's transformation, and a host of human capital challenges are testing executives — all at lightning speed.

Recent research underscores energy companies' trailing position for technology and talent. If your organization is currently sitting on the fence about making strategic changes (as are about eight in 10 energy firms) during this [Fourth Industrial Revolution](#),¹ it's time to move forward to attract, engage and retain the new generation of highly skilled workers to enhance safety, efficiency and productivity — or risk falling behind. To help companies like yours get ahead, we outline six digital-specific challenges and provide tangible solutions and next steps.

¹ www.weforum.org

DO YOU HAVE THE PEOPLE TO POWER YOUR FUTURE?

Throughout 2018, Mercer has completed numerous research initiatives to determine what kind of progress energy and other large companies have made with planning for their future, attracting tomorrow's thinkers and becoming safer, more competitive organizations. As expected, most companies say they are making plans for the future. In Mercer's *2018 Talent Trends* global report of all leading industries, 96% of C-suite respondents said they are planning a strategy redesign, with a focus on increasing productivity.

But are they preparing for the pre-2018 world or for digitization?² For many, they know that tomorrow will offer a host of new technology-related challenges, but many are planning based on a traditional model. For example, in Mercer's Talent Trends survey, only 15% of responding companies consider themselves a digital organization, and only 43% of employees say that they have digital interactions with HR. **In the energy sector specifically, about eight in 10 organizations are not actively recruiting skills to support digital transformation, automation and AI.³**

If energy firms are to compete for talent and drive further improvements in safety and become highly efficient operations, they must develop new ways of working and offer an employee experience with just-in-time intuitive digital access, personalization and modern tools sought after by a new generation of worker. Our Talent Trends survey findings back this up: Two-thirds of employees told us that state-of-the-art digital tools are critical to their success. It's time to connect what employees *want* to succeed with what employers *need* to win.

² In this report, the term "digitization" is used to describe new technologies and processes, including digital transformation, digitalization, automation/robotics and artificial intelligence, or AI.

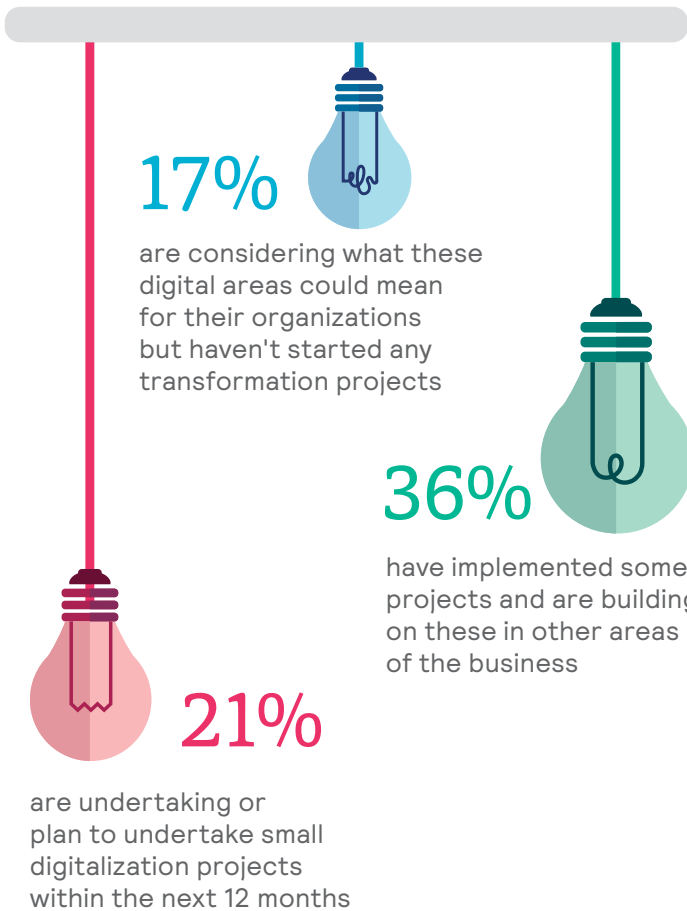
³ Mercer. 2018 Spot Poll of 139 Global Energy Firms.



BY THE NUMBERS⁴

TESTING THE WATERS

Energy companies are beginning to venture into digitization, automation/robotics and AI to build in greater efficiencies, discover greener solutions and stretch historically tight margins.

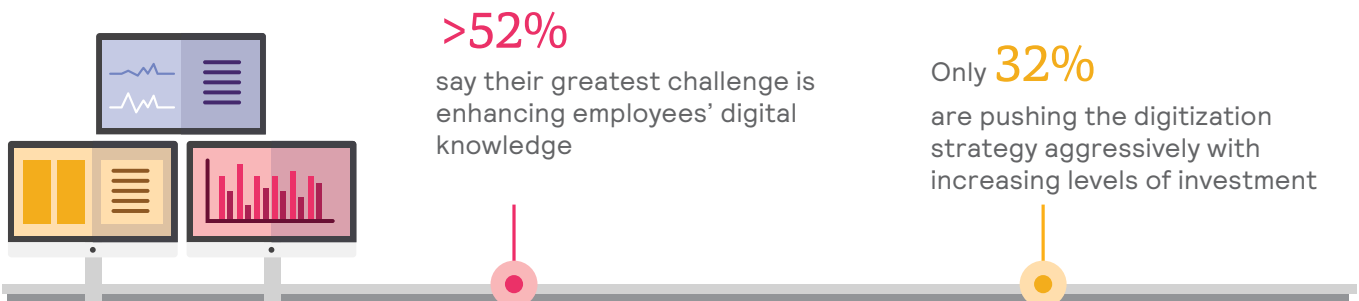


WHY IS DIGITIZATION GETTING SO MUCH ATTENTION? SPEED, SAFETY, COSTS, ACCURACY AND JOBS

Technology is playing a greater role in many tasks and jobs, and the energy sector lacks sufficient skilled talent due to an aging workforce, workers who left the industry because of layoff fatigue, and younger potential employees whose value propositions are more in line with those of tech firms and startups.

The advance in digitization means companies will need to reskill and upskill existing employees as well as attract a new cadre of skills into their organization to design, engineer, analyze, program, operate and fix the software and equipment that are lowering costs; providing real-time data and cloud computing; automating processes; optimizing logistics and drilling; and warning about hazards and cyber security threats.

CHANGE IS SLOW



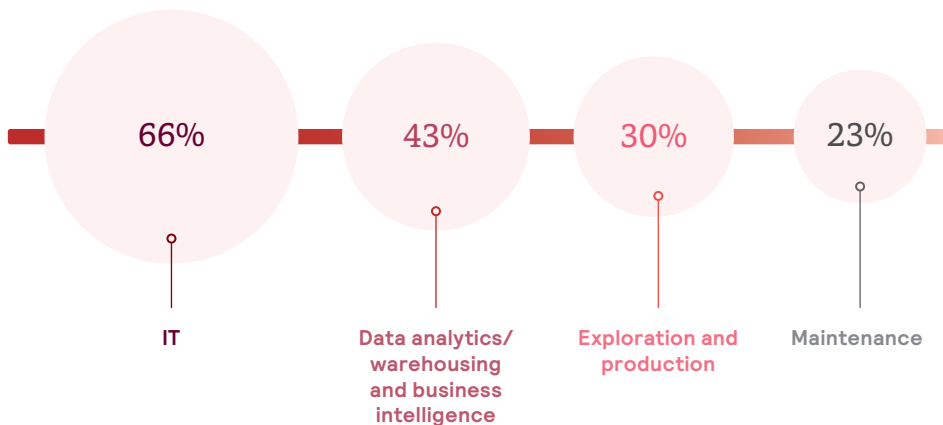
⁴ Mercer. 2018 Digital Transformation Survey of Global Energy Companies.

SAMPLE IMPROVED EFFICIENCY AND PROFITABILITY DUE TO DIGITIZATION

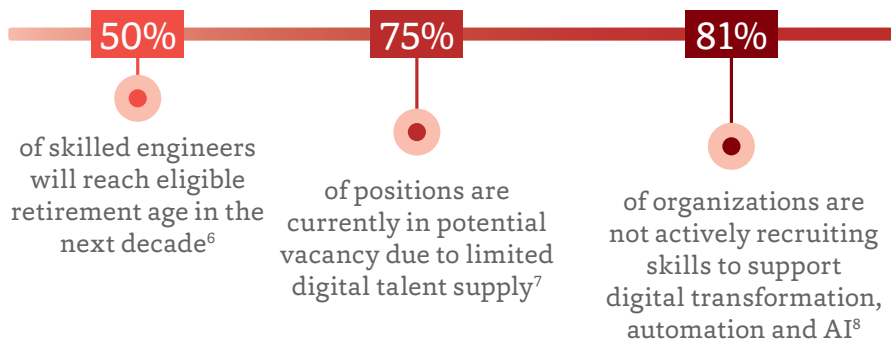
- Decreasing unplanned outages (e.g., a faulty sensor that led to a compressor breakdown, resulting in \$14 million in weekly losses)
- Diminishing spill probabilities (e.g., when a pipeline ruptured, resulting in \$1 billion clean-up cost)
- Reducing maintenance and repair costs
- Enhancing oil recovery techniques through historical data analytics
- Reducing the number of operators and human error by applying automation on mechanical processes
- Reducing steam/oil ratio and water usage, optimizing the operation of electric submersible pumps
- Increasing exposure to the reservoir pay zone by accurately defining drilling patterns

WHERE ARE ENERGY COMPANIES PLACING DIGITAL WORKERS, WHEN THEY CAN FIND THEM? ⁵

Respondents could select more than one



WHO WILL DO THE WORK?



⁵ Mercer. 2018 Spot Poll of 139 Global Energy Firms.

⁶ Mercer and Oliver Wyman. *Transforming Human Capital for a Digital World in the Oil & Gas Industry*, April 2018.

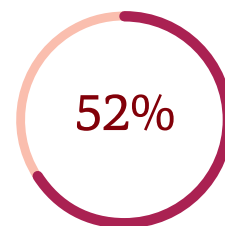
⁷ Ibid.

⁸ Mercer. 2018 Digital Transformation Survey of Global Energy Companies.

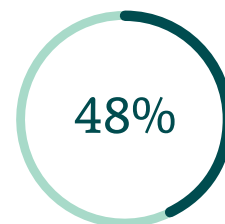
⁹ Ibid.

TOP CHALLENGES OF DIGITIZATION ADOPTION IN ENERGY COMPANIES

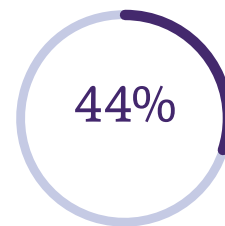
(respondents could select more than one)⁹



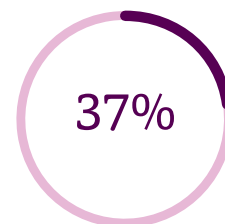
Developing and/or enhancing the skills and capabilities of our current employees to meet the requirements of our digitization strategy and priorities



Working with legacy systems



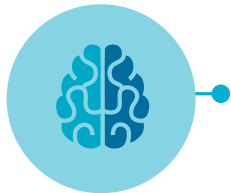
Defining the future workforce and talent requirements to support our digitization strategy and priorities



Demonstrating the ROI on the technology investment required

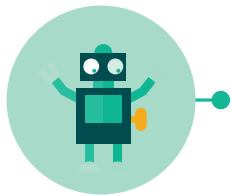
WHAT THE DATA TELL US

SIX DISTINCT CHALLENGES FOR ORGANIZATIONS FACING DIGITAL DISRUPTION



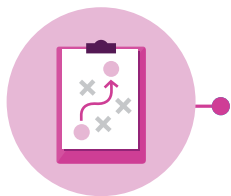
1
Digital skills
shortage

Energy has faced a double hit from both an aging work population and an overall limited digital skill set. With competition for digital talent rising, traditional companies find it difficult to compete with tech firms and startups. Beyond the digital skills shortage, there will also be a supply/demand imbalance in legacy technical skills that the industry will need to manage as the industry transforms.



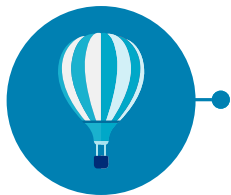
2
Job and skill
automation

Around 45% of jobs face a high probability of automation, and new skill sets will be required. Automation is cited as the second most prevalent reason for organizational redesign. To understand this impact, companies must analyze the extent to which their current jobs are at risk for automation and the new jobs that will be needed.



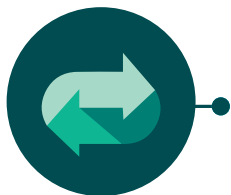
3
Mindset
change and
new ways of
working

Employees expect nonhierarchical organizations, flexibility and work with a clear connection to purpose. Among employees who are thriving, 75% say their company has a strong sense of purpose that resonates with their personal values. All talent programs need to be rooted in a clear talent value proposition; many programs, such as compensation, benefits and recognition systems, will need to adapt. Energy organizations will need to revisit their Employee Value Proposition (EVP) to attract the new skills they will need. But the EVP needs to be more than just words and pictures on a website. Organizations will need to deliver on the promise to employees.



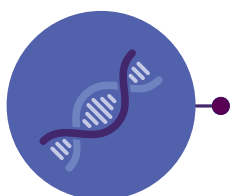
4
Talent and
cultural
diversity

By 2020, 40% of global graduates will come from India and China. Diversity and inclusion strategies must cover a multicultural and global workforce. Diverse workers desire different value propositions, requiring organizations to differentiate for new groups.



5
Better
collaboration
between
HR and the
business

Agile workforce transformation and talent planning, with buy-in from business leaders, will become the key to making organizations nimble in their talent processes. HR will need help understanding how digital disruptors impact the makeup of jobs and the resulting skills profiles of employees. Elements of the employee value chain will need to reflect this understanding.



6
Workforce
composition
optimization

The workforce will comprise a combination of full-time workers and on-demand freelancers, contractors or gig workers, who will need to be managed differently and strategically to work in concert.

WHAT YOU CAN DO ABOUT IT

To thrive and win in this new age, organizations must be agile and vigilant — pivoting at the pace of market fluctuations, leveraging the best technology and nimbly reforming to take advantage of new opportunities.

As leadership invests in technology, companies must bring their people along on the journey. They must not only engage employees but help them [thrive](#). Everyone — employees, HR, managers, executives and more — has a role to play in the [future of work](#), as digital investments and rapid redesign will fail without the support of leaders with a vision for the future and a workforce inspired by that future. To address the new skillset dynamics, reskilling the existing workforce should be a priority in building the future competitive workforce pipeline.

But building a future workforce does not mean waiting for the future to begin. In a 2018 report, [*Engaging the Workforce in Digital Transformation: A New Model to Enable Your Digital Strategy*](#), researchers from Mercer, Oliver Wyman and MIT implore the reader to get started NOW: “Waiting until a new technology is being introduced to retrain the workforce is too late. Instead, firms that want to be proactive in digitizing operations need to educate and train workers on a continuous basis so they have the analytical and social skills.”

They suggest that organizations move from a traditional, sequential approach of strategy design, implementation, and training and adjustment to a new interrelated, circuitous process. This new approach takes a firm through an integrated process of strategy design, workforce strategy design and *continuous* workforce training and development. All parts are moving, and organizations should look to continuously upskill the workforce, create a collaborative technology design, augment human input with AI and integrate technology into workflows.

TECHNOLOGY ISN'T THE ONLY REASON TO REDESIGN

As new technologies and innovation are beginning to capture the attention of leaders in the energy sector, organizations must not lose sight of other disruptions that should lead to a new business strategy or design. This can include pursuing mergers and acquisitions, aligning benefits with employee value propositions, building lean optimization and much more.

[Learn more by reading: *Delivering the Energy Workforce of the Future: The Vital Role of Analytics and Vision*](#)



CASE STUDY

MERGING TECHNICAL AND BUSINESS KNOWLEDGE AT OILCO

“OilCo” hired data scientists with the aim of building an agile organization that would apply data science to business and operational problems. While the data scientists proved their skill by building real-time dashboards for the business, they struggled to solve problems identified by petroleum engineers.

Even though OilCo created joint working teams of data scientists and engineers, they still experienced a communication breakdown. The data scientists understood the requirements for structuring and analyzing data, but they did not understand the petroleum business. The engineers knew the business and were interested in using new techniques, but they did not know how to convert their knowledge into data problems.

OilCo was able to facilitate an improved process by which engineers identified issues, structured them as data problems and worked collaboratively with their technical counterparts as they developed solutions. Collaboration is crucial. Beyond creating team structures and channels of communication, companies must ensure that their business and technical employees have a common language.

Training can play a role in teaching technical employees about the business, and business employees about technology. Well-structured technology implementation programs can also enhance collaboration. In short, joint-working teams, armed with both technical and business knowledge, and with a mandate to address core business concerns, can build powerful technology solutions.

Source: Adapted from *Engaging the Workforce in Digital Transformation: A New Model to Enable Your Digital Strategy, 2018*.

BUILD YOUR OWN WORKFORCE FOR THE FUTURE

Mercer and Oliver Wyman are partnering to help organizations develop their unique, thriving Workforce for the Future as they transition to a technology-enhanced environment.

Learn more: <https://www.mercer.com/our-thinking/career/workforce-for-the-future.html>

NEXT STEPS

We know that the Fourth Industrial Revolution is in full force, and that energy companies must act now to ride this wave into the future. So where – and how – do you go from here? You must reimagine your workforce strategy and start building your workforce for the future – today. As you transition to digitization, you will need to upskill the existing workforce, revise your employee value proposition to attract and retain talent, and embrace new, evolving work and workforce models.

REIMAGINE WORKFORCE STRATEGIES TO TRANSITION TO THE NEW DIGITAL ERA



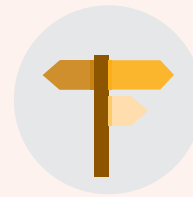
UPSKILL AND RESKILL WORKERS

- Define upskilling needs
- Identify upskilling platform
- Define distribution mechanism
- Develop communications strategy



REVISE THE TALENT VALUE PROPOSITION TO ATTRACT AND RETAIN DIGITAL TALENT

- Cover people in all talent pools
- React fast to their needs
- Enable your people to live and work in flow
- Clearly articulate your purpose



STREAMLINE HOW YOU MANAGE CONTRACTORS

- Establish talent ecosystems across your value chain
- Optimize work allocation with internal gig marketplaces

HR delivery model and capabilities

Admittedly, this isn't easy. But since when has any major transformation been simple? We are here to help. We can partner with you to shift disruptive changes to your advantage using research, insight and best practices. Our mission is to equip leaders to see into the future, de-risk and future-proof decisions, and capitalize on a specific solution tailored for your unique needs, market, geographies and people.

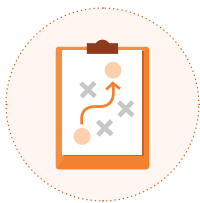
Digitization will impact every large business in the very near future, but not in the same way. Just as every organization is unique, your solution will require a customized approach. In general, however, your next steps could lead to the following outcomes:



An agile and flexible workforce that helps your company meet the demands of fast-moving initiatives



Business and HR leaders who recognize each group's capabilities and work together to create a productive and thriving workforce; in addition, an HR group that is positioned as an ongoing strategic partner to business functions and is ready to meet the needs of a new era of workers



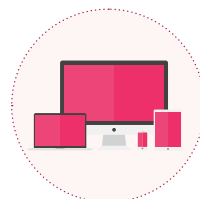
A clear plan that describes which jobs are at risk for automation, what new skills will be required as a result of automation, how to address potential job changes or losses, and a strategy for reskilling current employees



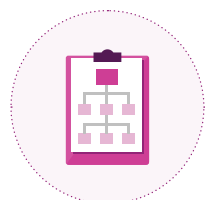
A workforce comprising multiple talent pools that provide a comprehensive set of skills, supported through clear articulation of different strategies to reward, manage and source the different talent pools and ensure optimal sourcing



An inclusive work environment to help you attract and inspire top talent from all generations, embrace new ways of working and redefine how the company delivers its business



A continuously evolving workforce strategy that embraces new technologies, enhances efficiencies, creates a safer environment, fosters innovation and attracts the best and brightest talent



A defined strategy to become competitive in attracting, retaining and engaging diverse talent combined with an effective HR and leadership strategy to embrace the changing workforce

LET'S CONTINUE THIS CONVERSATION AND SEE HOW YOUR ORGANIZATION, HR, OPERATIONS AND PEOPLE CAN DO MUCH MORE THAN SURVIVE – AND ACTUALLY THRIVE – IN THE COMING DIGITAL REVOLUTION.

Mercer Energy is a leading provider of strategic advice and execution support to more than 500 organizations across the globe. We maintain constant observation and interpretation of global, regional and local dynamics impacting our clients today and tomorrow as well as the disruptive forces transforming the future workforce. Using extensive data and benchmarks, the deep project expertise of our 600+ energy consultants, and in-depth analysis and forecasting, we partner with our clients to develop a strategic performance platform designed to create and maintain a thriving workforce and deliver long-term business success.

ABOUT THE AUTHORS

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ADDITIONAL READING

Delivering the Workforce for the Future

<https://www.mercer.com/our-thinking/career/delivering-the-workforce-for-the-future.html>

Energy Platform for Performance: Seven Key Drivers for Moving Beyond Crisis and Creating Long-term Sustainable Performance in Oil And Gas

<https://www.mercer.com/our-thinking/career/energy-platform-for-performance.html>

Engaging the Workforce in Digital Transformation

<https://www.mercer.com/our-thinking/career/engaging-the-workforce-in-digital-transformation.html>

Engaging Today's Workforce: Insights From 25 Years of Research

<https://www.mercer.com/content/dam/mercer/attachments/private/gl-2017-career-engaging-todays-workforce-insights-from-25-years-of-research-mercer.pdf>

Thriving in a Disrupted World

<https://www.mercer.com/our-thinking/thrive/thriving-in-a-disrupted-world.html>