

# Modernizing energy:

executive insights on IT  
transformation and AI adoption



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# Foreword

The energy industry is in the midst of profound transformation. As demand rises, energy sources diversify, and expectations for sustainability grow, organizations face mounting pressure to deliver reliable and affordable energy while maintaining profitability. Modernization is no longer optional; it is the foundation for value realization in this new era.

In the Modernizing Energy: Executive Insights on IT Transformation and AI Adoption survey, conducted by Reuters in partnership with Publicis Sapient and AWS, 99% of energy leaders reported allocating part of their technology budgets to modernization projects. This underscores that modernization has become the foundation, building the secure, reliable, and scalable infrastructure needed to support future growth.

On top of this foundation, AI is fast emerging as the critical value unlock. AI is now a priority for 61% of energy organizations, second only to cybersecurity (62%), with software development (54%), forecasting (49%), and risk management (49%) as the leading use cases. This shows that modernization is not just about upgrading

legacy systems; it is about enabling the advanced capabilities that will define the next era of performance and growth in energy.

The results highlight a dual reality: while legacy systems and outdated practices continue to constrain progress, advances in AI, automation, and cloud-enabled platforms are opening new pathways to value creation, whether by modernizing trading systems, optimizing operations, or reimagining customer engagement.

We hope the insights and case studies in this report serve as a valuable benchmark for industry leaders, helping you compare your efforts, identify new opportunities, and gain practical examples of transformation in action. By bringing together AWS's cloud capabilities and Publicis Sapient's industry and digital expertise, our aim is to provide you with both inspiration and actionable direction as you navigate this rapidly evolving energy landscape.

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# Strategic Drivers of IT Modernization

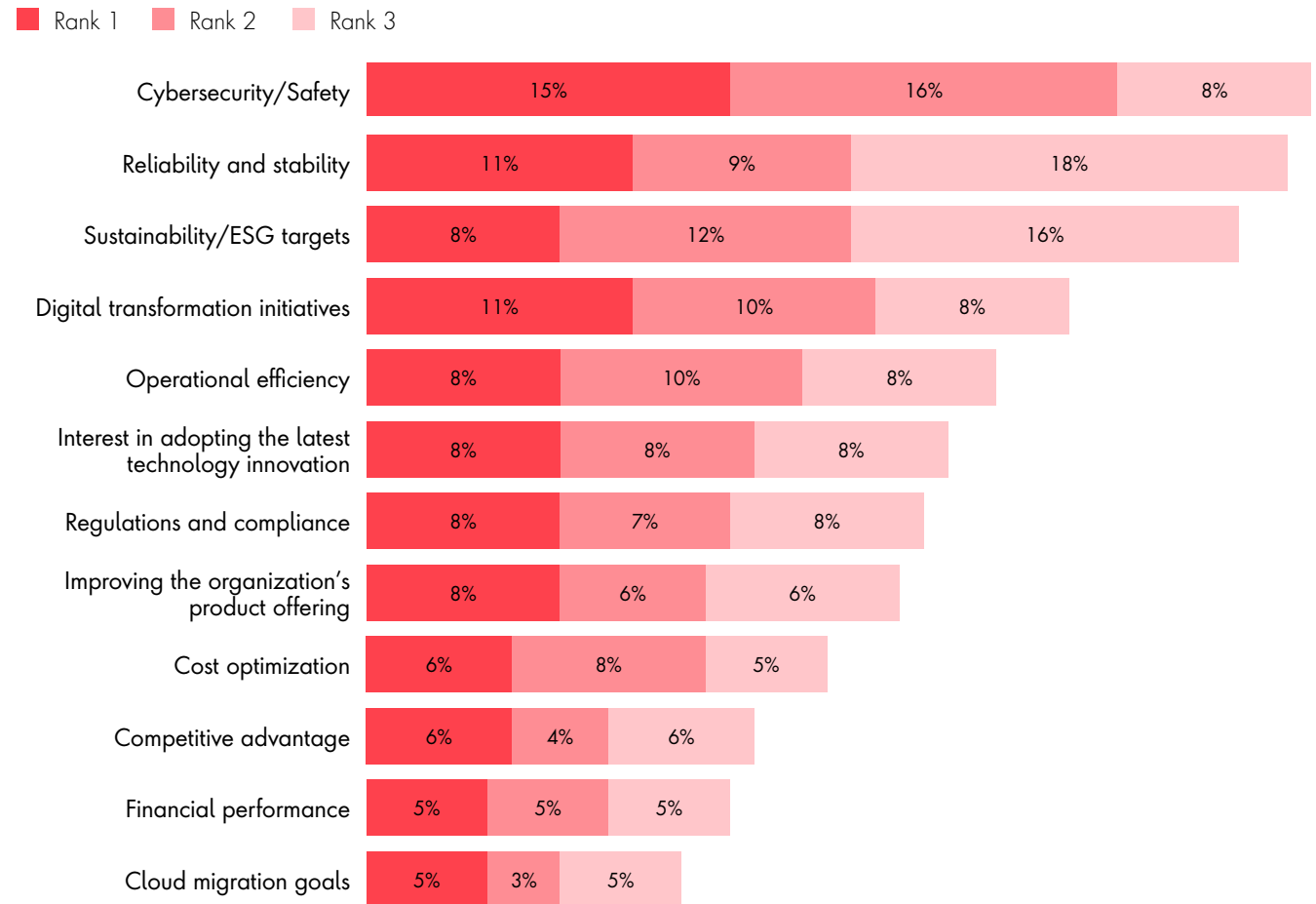
There are three primary drivers for energy organizations making IT investments: cybersecurity, system reliability and stability, and sustainability targets. Cybersecurity, selected as a top-three consideration by 39% of respondents, is perhaps an unsurprising inclusion given the importance placed on system safety amidst a backdrop of increasing cyber-attacks. Energy infrastructure is widely perceived as a target for cyber-attacks, with many nations forcing energy system operators to have robust protections in place.

The U.S. Department of Homeland Security has warned that foreign actors continue to actively pre-position to target critical infrastructure networks, including energy, while research conducted by Trustwave has claimed that ransomware attacks on the energy and utilities sector increased by 80% last year.

Towards the bottom of the list of selected drivers are cost optimization (19%), competitive advantage (16%) and financial performance (15%). That these three factors, all linked towards an organization's fiscal performance, are towards the bottom of our respondents considerations

**FIGURE 1**  
**Cybersecurity, reliability and sustainability are the leading drivers for IT investments today**

What are the top three business considerations that are driving your organization's decisions in IT investments?



Total sample; Unweighted; base n = from 2 to 60; total n = 156; 154 missing  
Reuters Events' Future-Proofing Energy Assets Survey

suggests that IT investments are not viewed through a financial lens but an operational one and, as a result, are not considered purely as a cost to the business.

With regards to ESG and sustainability, our research shows that a majority of respondents consider it a leading concern for their organization's IT modernization strategy. Just four percent of respondents said ESG was not a consideration during the decision-making process. This is a clear indication as to how ESG and sustainability permeates through an organization's entire operation, rather than simply its core business.

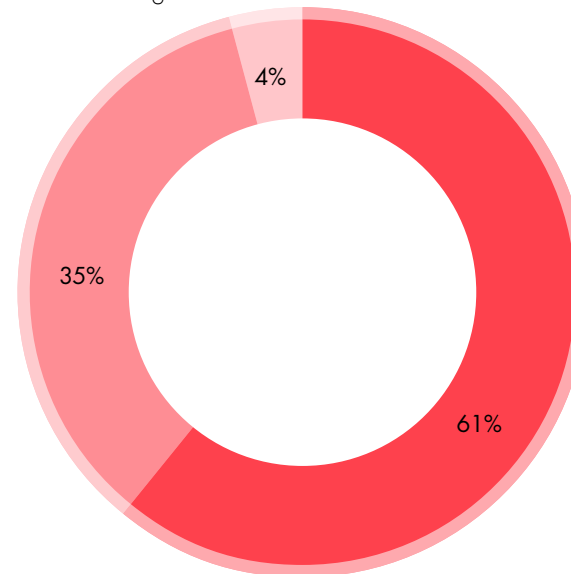
This is seen more acutely within very large businesses. While around 50% of energy organizations with annual revenues below \$100 billion stated ESG/sustainability as a top concern for their IT modernization strategy, 83% of businesses with revenues in excess of \$100 billion did so. ESG and sustainability can therefore be considered a particular imperative for very large energy market players.

**FIGURE 2**

**ESG and sustainability remains a leading factor within IT modernization strategies**

How much does ESG/sustainability factor into your IT modernization strategy?

- It's a top concern
- It is one of the considerations, but it is not a top concern
- It was not a consideration during decision making



Total sample; Unweighted; base n = 153; total n = 156; 3 missing

**FIGURE 3**

**Better quality and reliability of data is the most important objective for data platform investments**

What is the most important objective or outcomes of investments in data platforms? Please select all that apply.



Total sample; Unweighted; base n = 152; total n = 156; 4 missing

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Data is, of course, of significant importance for energy organizations, with investments in data expected to unlock value across the operation. In tandem with figure 2, greater investments in data strategies are widely expected to deliver the most value in sustainability and emissions tracking and reporting, another indicator as to the seriousness with which energy companies are approaching their sustainability commitments. This is universally the case across the industry, as figures 4a and 4b illustrate.

Equally, energy companies also see a direct link between data-related investments and operational efficiency. Greater quality and quantity of data, and its ability to educate decisions at an operational level, are deemed key to driving efficiency from existing operations.

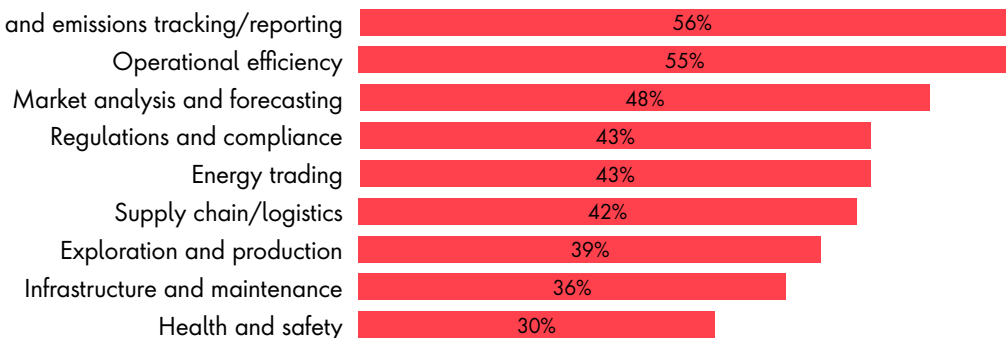
There is a slight change in approach for utilities and grid owners/operators however, with this particular segment of the industry considering that energy trading would benefit most from investments in data strategies and tools.

Investments in IT will, however, only deliver value if the data used is of sufficient quality and reliability. A significant majority (79%) of respondents said that better quality and reliability of data is the most important objective of data platform investments, speaking to a near universal appreciation of the inherent value of data.

**FIGURE 4a**

**IT professionals in the energy sector consider most value would be driven in sustainability reporting and broader operational efficiency**

At your organization, in which areas would greater investments in data strategies / tools deliver the most value? Please select all that apply

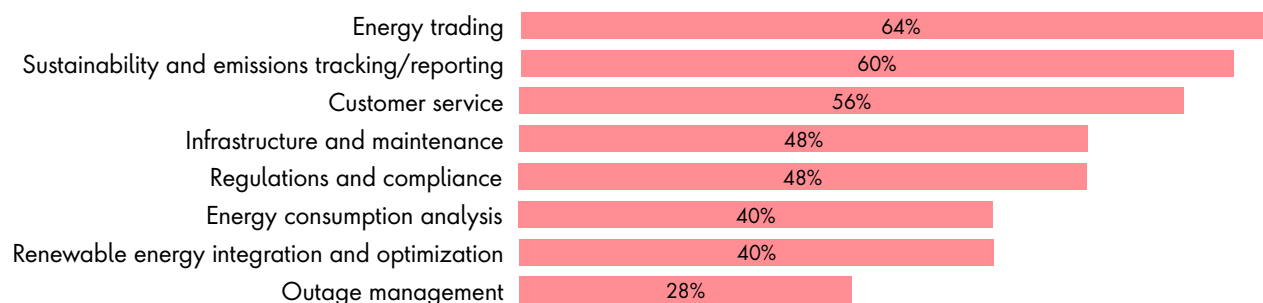


Total sample; Unweighted; base n = 145; total n = 156; 11 missing

**FIGURE 4b**

**Energy trading professionals believe IT investments would drive value in their own department first and foremost**

At your organization, in which areas would greater investments in data strategies / tools deliver the most value? Please select all that apply



Total sample; Unweighted; base n = 25; total n = 156; 131 missing

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# The State of AI in Energy

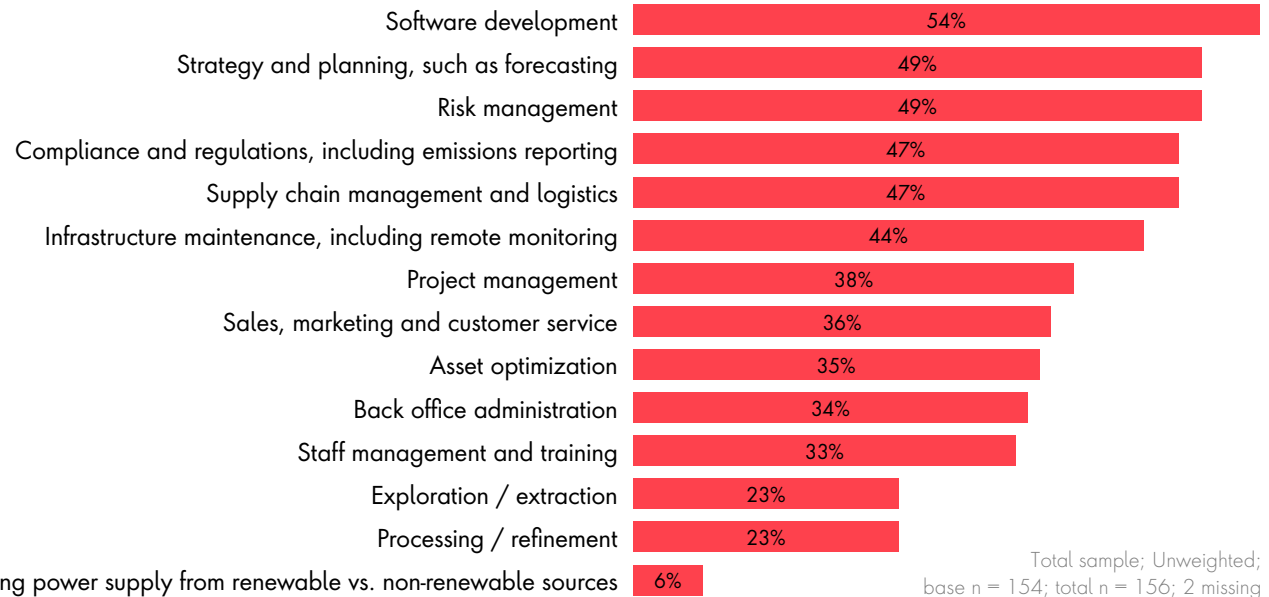
AI and generative AI (GenAI) has emerged as a significant source of disruption and change across multiple industries, and the energy sector is no different. The technology is being applied widely and across organizations of all shapes and sizes, and is clearly playing a pivotal role in the modernization and transformation of IT.

Our research shows that AI is being applied across a wide range of operational areas within energy organizations today. While the most popular use case is in software development, identified by more than half (54%) of respondents, we also see strong support for using AI across risk management, strategy and planning, compliance and regulation and supply chain management and logistics.

If GenAI is considered an integral enabler for IT modernization, then energy organizations are frequently turning towards established providers of GenAI for procurement. Microsoft, OpenAI, Google and Amazon are the primary providers of AI tools for the industry, drawing the conclusion that the energy sector is keen to procure off-the-shelf solutions from proven providers at this stage.

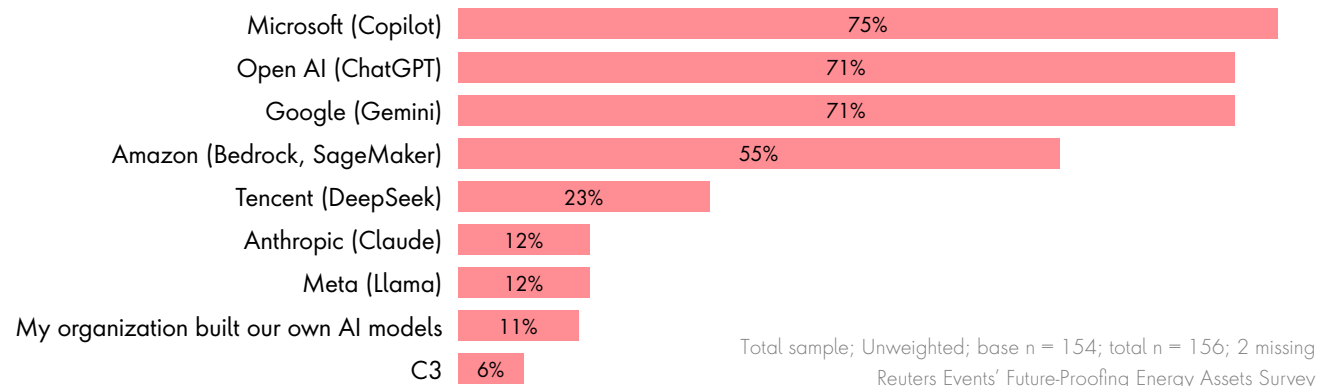
**FIGURE 5**  
**AI is being mostly applied to software development tasks, but broadly across most businesses**

At your organization, in which of the following operational areas has Artificial Intelligence (AI) already been applied? Please select all that apply.



**FIGURE 6**  
**Energy organizations are turning to Microsoft, OpenAI and Google for their AI demands**

Has your organization procured Generative AI (GenAI) products from any of these providers? Please select all that apply.



We see a much smaller share (11%) of organizations developing their own models – something which may be directly attributable to the cost and resource requirement – while more dedicated solutions are also only procured by a distinct minority of respondents.

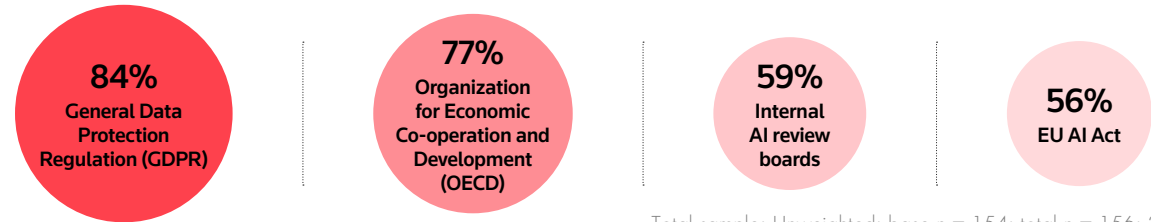
Energy organizations are also commonly turning towards existing legal standards, such as the General Data Protection Regulation (GDPR) and the Organization for Economic Co-operation and Development (OECD) standard, to govern their use of AI, rather than any AI-dedicated framework, either internal or external.

As AI continues to increase in sophistication, so too will the number of uses energy organizations find for it internally. As figure 8 shows, use cases for AI are widely expected to develop in strategy and planning, risk management, infrastructure maintenance and regulatory compliance in the future.

While strategy and planning and risk management are already of great importance to the energy sector, the prospect of AI remotely conducting monitoring and informing central teams of asset health and performance needs is clearly of major interest. This also aligns with how a majority (52%) of respondents expect AI to have the most impact in predicting possible issues and aggregating the necessary data to troubleshoot.

**FIGURE 7**  
**GDPR and OECD guidance are driving AI-related governance today**

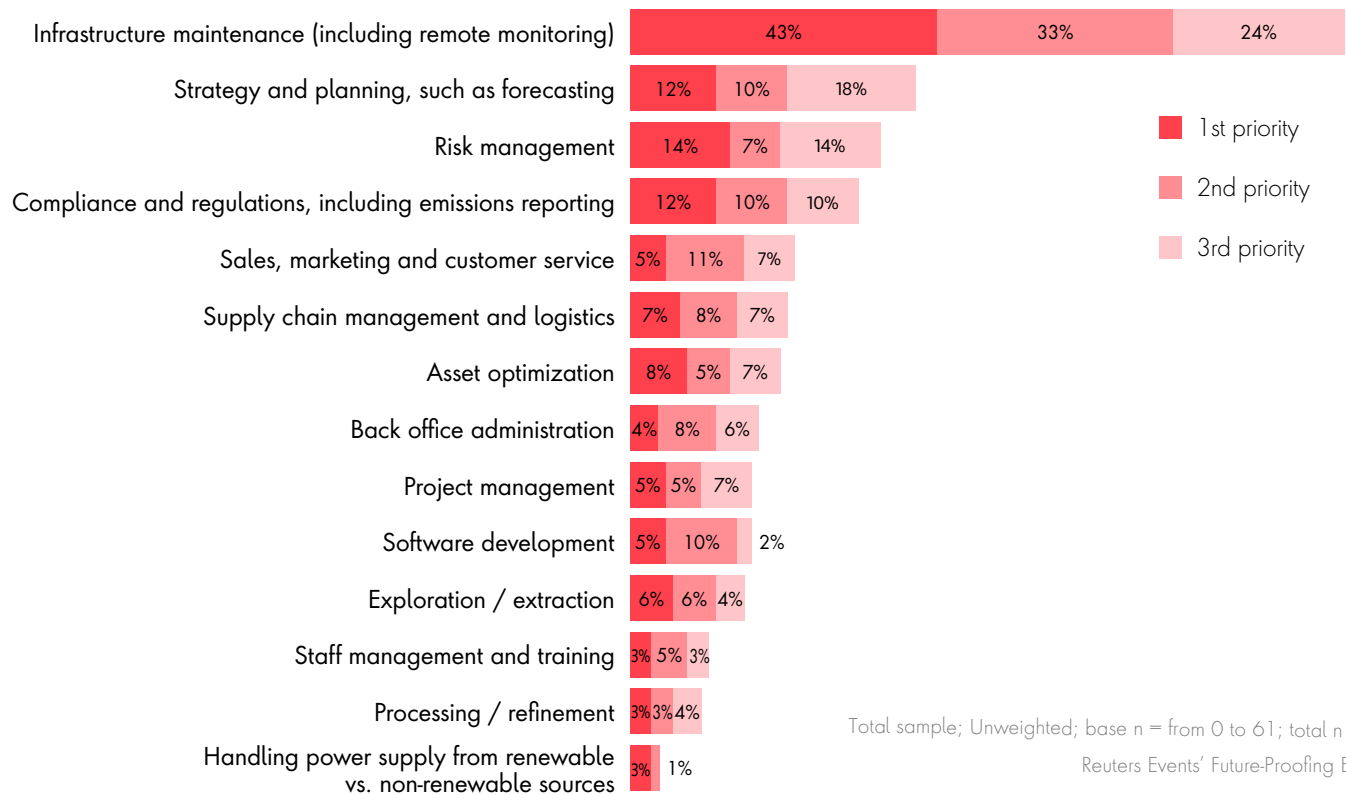
What AI governance frameworks do you use? Please select all that apply.



Total sample; Unweighted; base n = 154; total n = 156; 2 missing

**FIGURE 8**  
**Energy professionals see major potential for AI to transform infrastructure maintenance**

At your organization, in which of these operational areas do you expect more AI use cases to develop in the future? Please select the top three.



Total sample; Unweighted; base n = from 0 to 61; total n = 156; 156

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AI's promise to streamline maintenance tasks and make them run more efficiently stands to unlock real value for energy organizations moving forward.

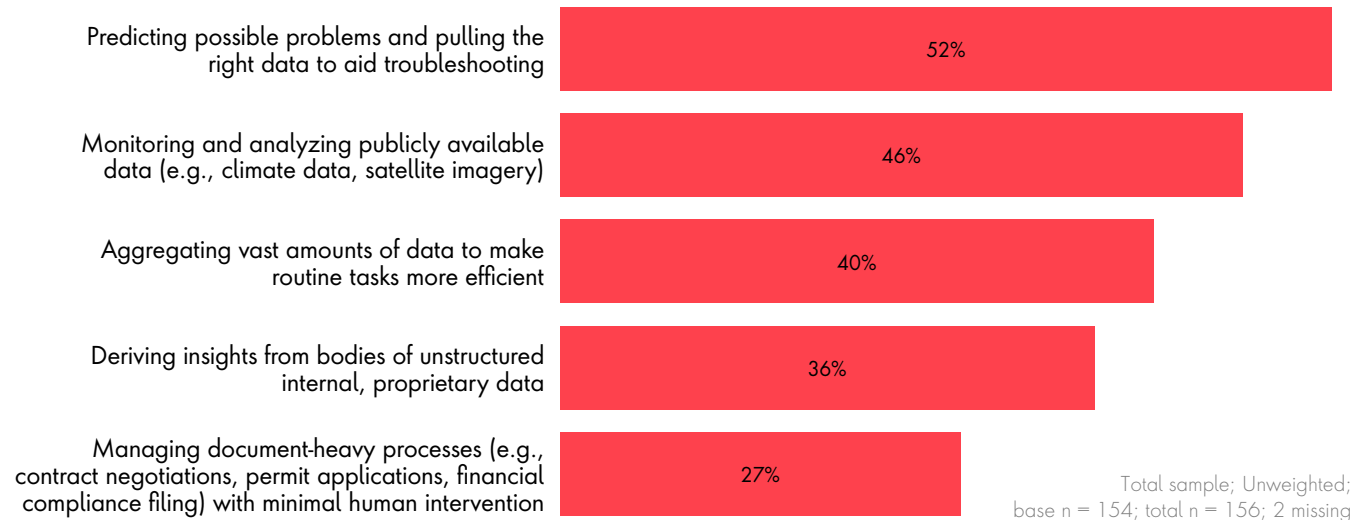
While AI may have been in use across energy organizations for some time now, agentic AI is perhaps the latest development to garner significant attention. Agentic AI's ability to conduct more routine or laborious tasks in tandem with human operation and oversight is highly sought after, with energy organizations looking towards this to aid energy trading teams.

These teams see this as being particularly transformative for risk assessment and monitoring purposes.

**FIGURE 9**

**AI is expected to transform predictive maintenance, enabling more streamlined troubleshooting**

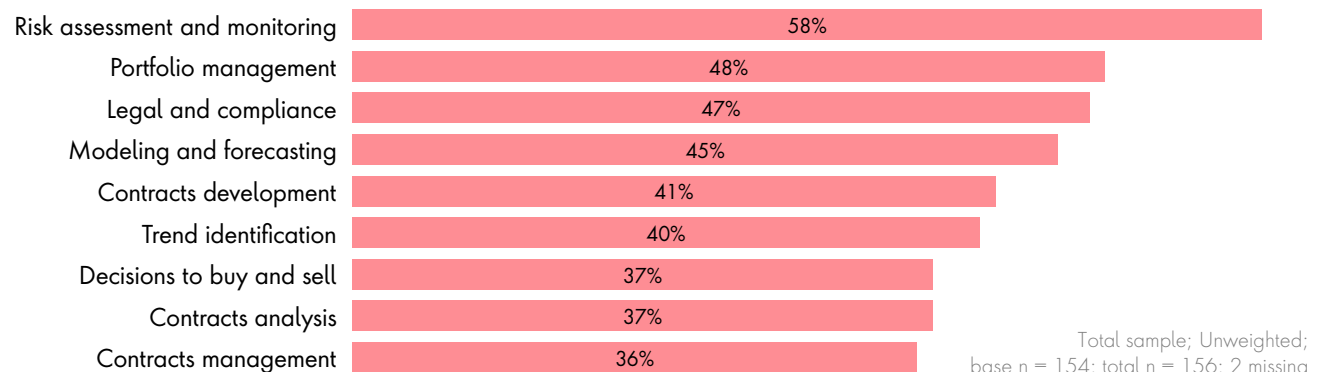
Which of these specific areas do you see AI to have the most impact? Please select top two.



**FIGURE 10**

**AI could sufficiently AI energy traders in risk assessment and monitoring going forward**

For energy trading, in which of these areas has your organization used Agentic AI? Please select all that apply.





AI is also applied across a range of tasks relating to software development lifecycles (SDLC), and we see the technology being used frequently to aid more creative tasks as part of this process. A majority of respondents also stated that it is being used broadly for routine tasks, while 60% indicated that AI is used to supplement engineer-led software development.

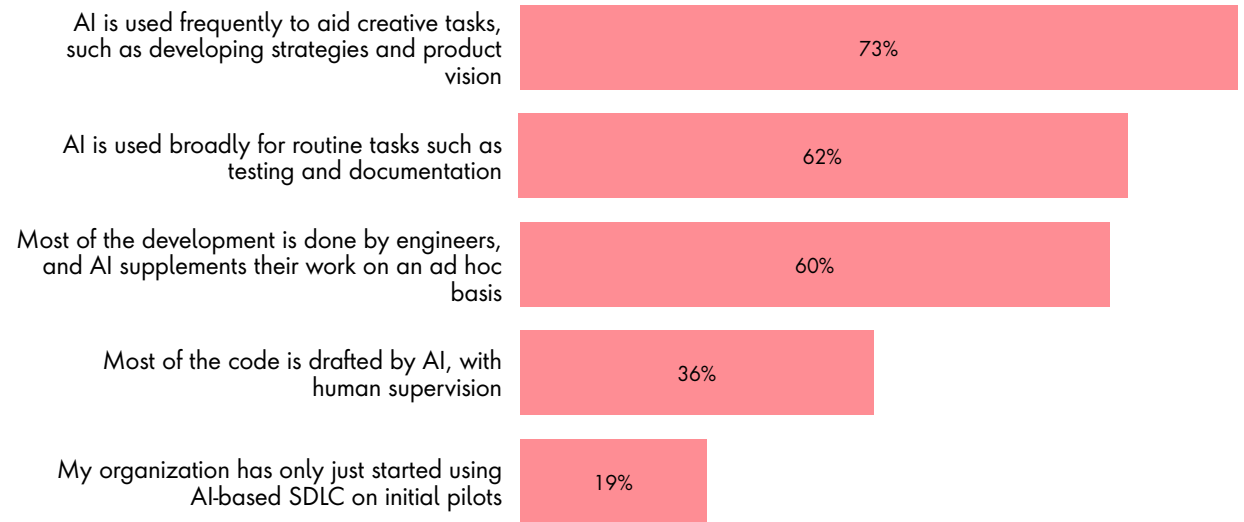
With more specific relevance to continuous integration and continuous deployment (CI/CD) practices, AI is mostly used to conduct automated testing of software and coding prior to release. We also see a majority of respondents state that AI is used across performance monitoring and code analysis, yet further evidence of its all-round application within SDLC teams and functions.

Given AI's all-round use and adoption, it is therefore unsurprising that a significant majority (74%) of respondents said they expect investments in AI-based SDLC to increase over the next three years. Indeed, just one percent of respondents said they expect investments to fall in that timeframe, yet further indication of the importance being placed on AI within an SDLC setting.

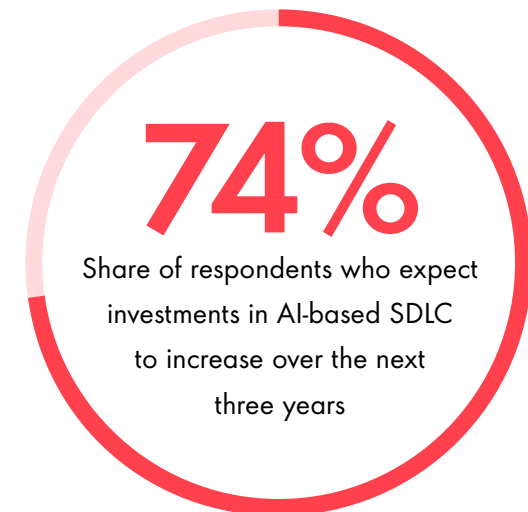
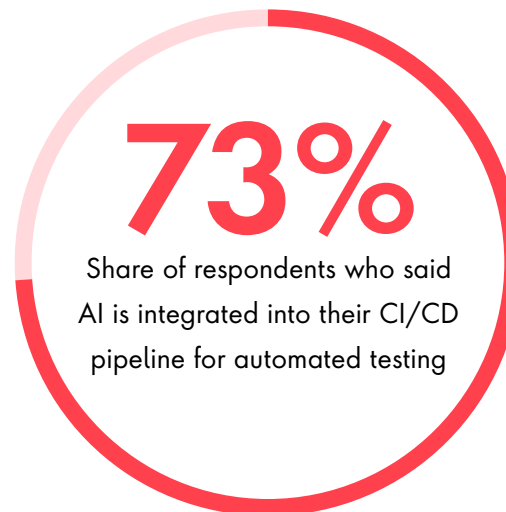
**FIGURE 11**

**A majority of energy professionals said AI is already used frequently within SDLC tasks**

What is the current level of AI integration in your organization's software development lifecycle (SDLC)? Please select all that apply.



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## CASE STUDY

# Helping Midstream O&G Operators to Reinvent and Successfully Navigate the Modernization Journey

PS in collaboration with Microsoft Azure Cloud services, partnered with one midstream O&G operator through their digital transformation journey, successfully migrating their infrastructure from traditional data centers to Azure environments. Leveraging automation and self-healing capabilities via Terraform as Infrastructure-as-Code, we ensured seamless migration while maintaining database uptime with zero RPO and a 15-minute RTO.

## Business challenges & Ask

- **Legacy front-end technology** was slowing down delivery of new features.
- **Very limited developer expertise** with outdated framework.
- Publicis Sapient engaged the client to help Migrate front end screens for their complex commercial application handling over \$5bn of transactional revenue
- The ask was to modernize their platform by proposing innovative ways so that they don't have to break the banks with high project fundings and at the same time maintain application reliability through code quality
- User experience revamp was another key ask given inconsistent user experience across applications
- Lack of current state documentation was another big risk to continue with maintaining the critical app.

## The transformative solution

- Publicis Sapient implemented an **agentic AI-driven workflow using proprietary platform – “Sapient Slingshot”** to accelerate the client's front-end migration to Angular across 350+ highly complex screens
- **Autonomous code generation** - Instead of manual, screen-by-screen rewriting was designed using AI agents that could autonomously generate the target-state Angular code.
- **Agentic AI workflows at scale** – AI agents were orchestrated to handle repetitive code transformation tasks across hundreds of screens.
- **Prompt and workflow maturity** – We iteratively refined prompts and agent steps, enabling the workflows to perform complex transformations with minimal supervision.
- **Human-in-the-loop assurance** – Critical workflow steps included checkpoints where engineers validated and fine-tuned the AI output to guarantee reliability, accuracy, and maintainability.

## Business Impact

- **Accelerated delivery** – Reduced overall development effort by **35–40%**, significantly shortening the migration journey.
- **Cost and time savings** – Faster execution with fewer resources lowered total program costs.
- **Higher code quality** – Generated **standardized, reliable Angular code** with **zero security vulnerabilities**.
- **Knowledge preservation** – Sapient Slingshots code modernization agents also auto-generated **documentation, pseudo-code**, from legacy code, mitigating risks tied to an **aging workforce**.
- **Testing efficiency** – AI-produced **unit tests and end-to-end test cases** streamlined QA, cutting testing time and improving coverage.
- **Program accelerator** – The AI-enabled approach transformed a high-complexity migration into a **scalable, repeatable, and predictable process**, unlocking long-term modernization benefits.

# Overcoming Barriers to AI and GenAI Adoption

With GenAI clearly afforded such importance within an IT team’s overall strategy, it is critical to understand the barriers and challenges such teams face in adopting the technology wholesale.

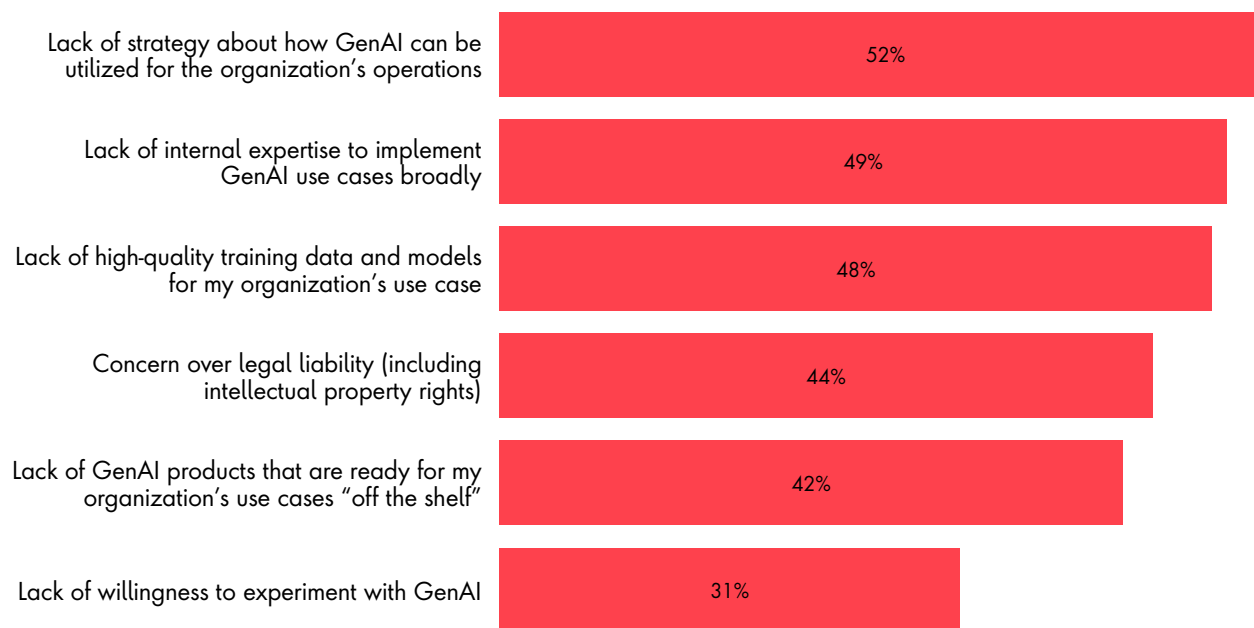
As figure 12 shows, energy organizations consider three primary challenges: a lack of overall strategy around how GenAI can actually be utilized, a lack of internal expertise when it comes to implementing GenAI, and a lack of high-quality training data and models that suit specific use-cases.

While all three are perhaps not considered insurmountable, when considered together they point to a lack of internal resources and considerations for how GenAI can be integrated and used. This may be attributable to how relatively nascent GenAI is, with these challenges subsiding as the technology and organizational understanding of it matures.

**FIGURE 12**

## Energy organizations could benefit from a more cohesive operational GenAI strategy

What do you think is holding back greater adoption of GenAI at your organization? Please select all that apply.



Total sample; Unweighted; base n = 154; total n = 156; 2 missing  
Reuters Events' Future-Proofing Energy Assets Survey

Of perhaps broader concern for energy organization is how data quality and availability are evidently preventing organizations from extracting valuable insights from their customers. With further issues pertaining to data ownership and integrating available data, identified by 51% and 50% of respondents respectively, organizations evidently see more structural issues within the data practice.

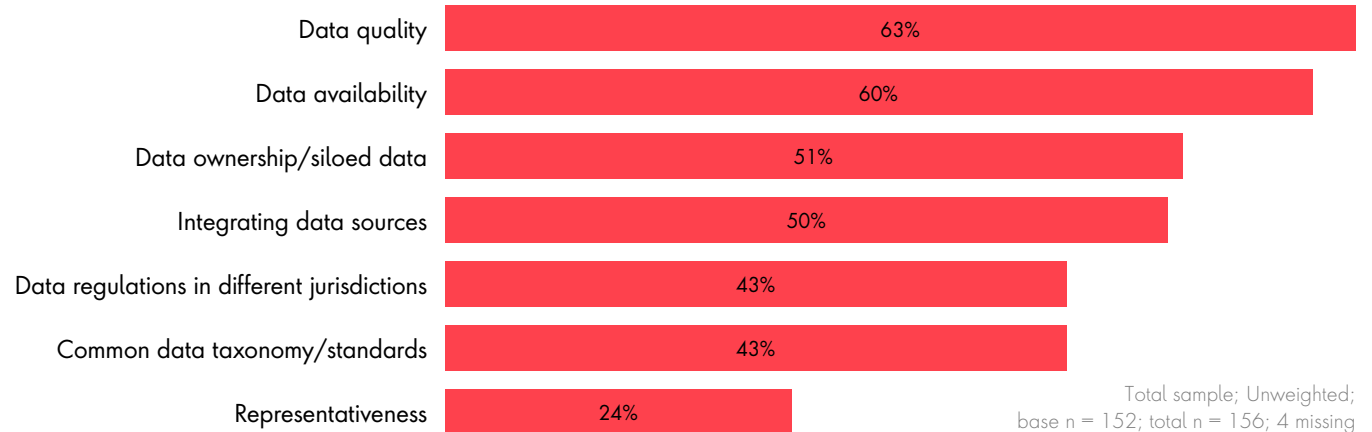
Data platforms are often regarded as one way to solve many of the challenges and obstacles within data practices, and our research indicates that two factors are being prioritized above all others when it comes to selecting a particular platform to adopt. Any data platform must be easy to integrate with existing data workflows and must meet all of the organizational requirements.

These two factors are placed above licensing costs, previous user experience and training requirements, indicating that organizations seek systems that are primarily easy to use and fits all requirements.

**FIGURE 13**

**There is broad concern around data quality and availability when it comes to drawing customer insights from existing data**

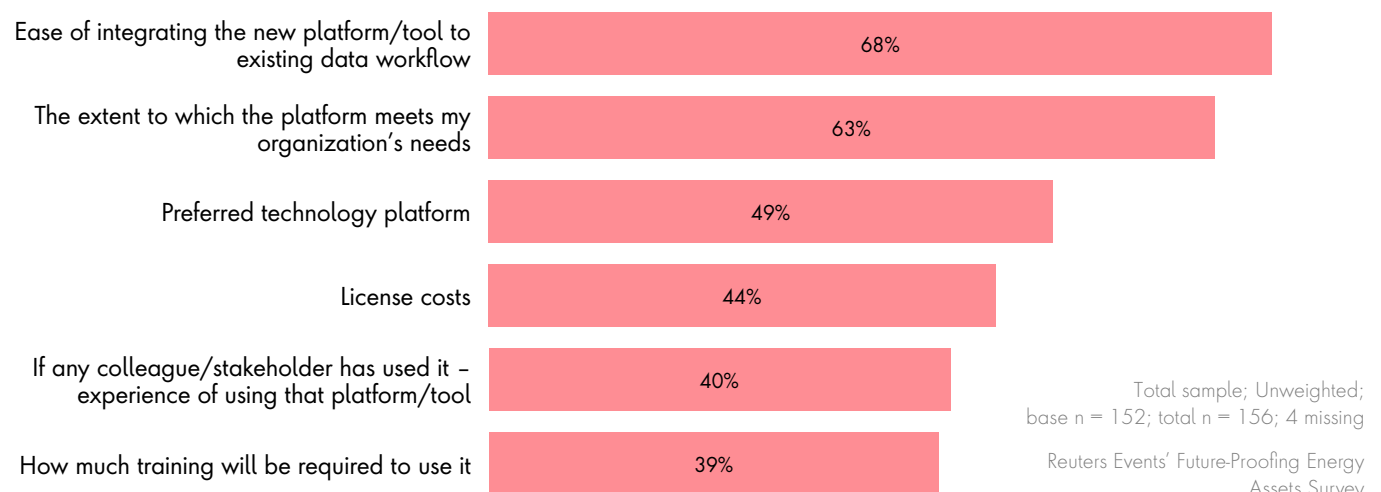
What are the greatest challenges to drawing insights about your customers for your organization’s business needs from internal and external data? Please select all that apply.



**FIGURE 14**

**Energy organizations prioritise platform integration and efficacy over cost**

What are the key factors in selecting a data platform? Please select all that apply.



# IT Modernization in Practice

Having established the primary drivers for IT modernization and the role AI is expected to play, it is unsurprising to see the leading priorities for such programs as being related to cybersecurity and AI. This is evidence of energy organizations being across both risks and opportunities; threats posed by cyber-attacks and the transformative operational potential of AI (figure 14).

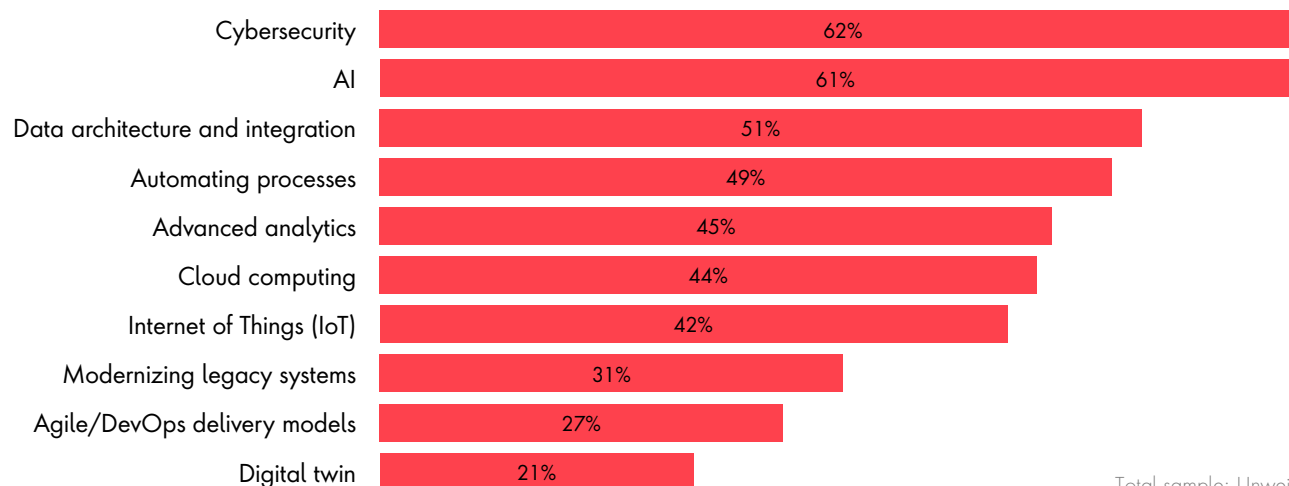
We also see high levels of awareness for areas including data architecture and integration, process automation, advanced analytics and cloud computing.

With specific regards to cloud computing, figure 17 highlights how energy organizations are mostly adopting both hybrid and multi-cloud projects. This indicates that companies are using both approaches, possibly to meet distinctly separate needs, with private or on-premises cloud computing capabilities a cornerstone of any IT program.

**FIGURE 14**

## IT modernization programs are mainly targeting cybersecurity concerns and AI-related demands

What are the priority areas in your organization's IT modernization programs? Please select all that apply.

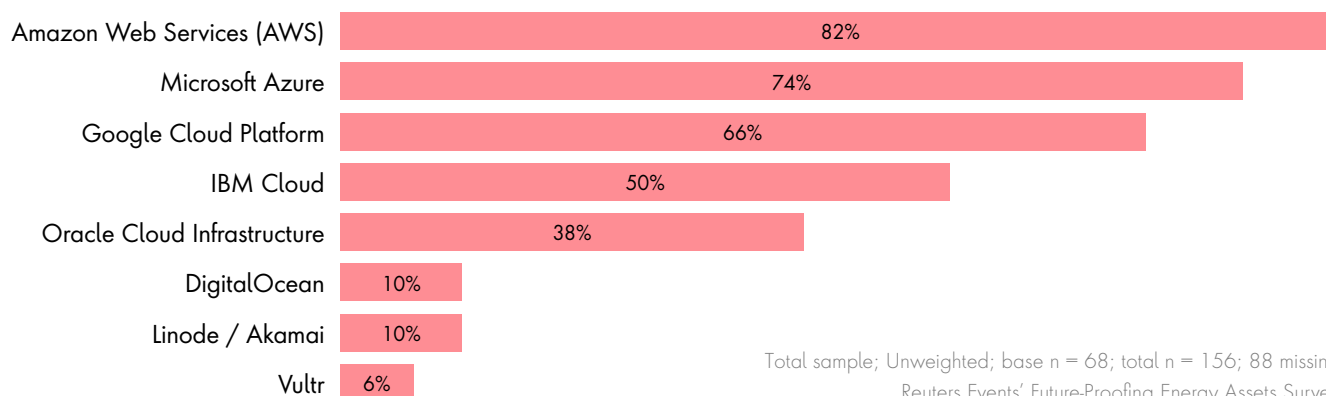


Total sample; Unweighted; base n = 154; total n = 156; 2 missing

**FIGURE 15**

## Cloud procurement is dominated by major providers such as AWS, Microsoft, Google and IBM

Which cloud providers are you using / are you considering? Please select all that apply



Total sample; Unweighted; base n = 68; total n = 156; 88 missing  
Reuters Events' Future-Proofing Energy Assets Survey

Provision of cloud computing is dominated by Amazon Web Services (AWS), with 82% of respondents indicating their use for cloud computing today. AWS is followed by Microsoft Azure and Google Cloud, selected by 74% and 66% of respondents respectively.

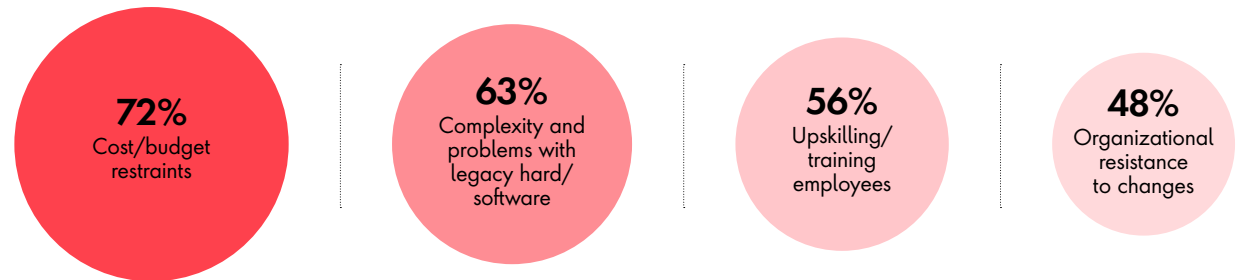
IT modernization programs are addressing an array of priorities and targets. Our research shows that cost or budgetary constraints are the most prevalent challenge faced during this process, as indicated in figure 16. With a majority expecting investments in AI-led SDLC to increase over the coming years (see page 10), concerns over cost may dissipate as the use of AI in SDLC reduces costs associated with technology modernization.

The prospect of technical debt can also become apparent as organizations elect for lower-cost solutions rather than the most appropriate or scalable. We see a range of strategies being used in this regard, from automated testing (56%) to regular code refactoring (48%). That no one strategy is favored others suggests that technical debt remains a recurring issue for the energy sector. IT teams must therefore consider technical debt during oversight and delivery.

**FIGURE 16**

**Cost is the biggest challenge professionals face during IT modernization program**

What are the key challenges you faced during your IT modernization programs? Please select all that apply.

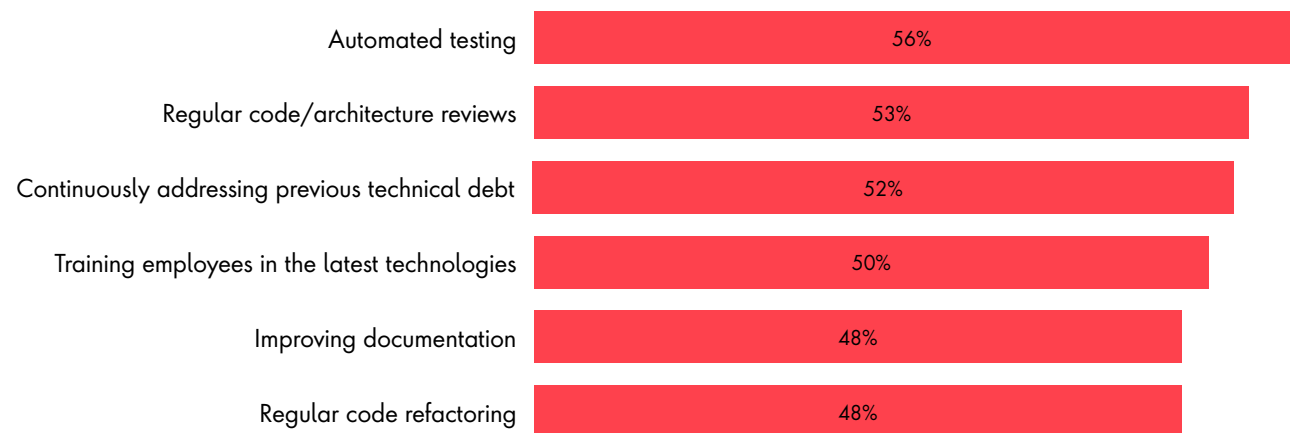


Total sample; Unweighted; base n = 153; total n = 156; 3 missing

**FIGURE 17**

**Addressing technical debt is a multi-faceted strategy for energy professionals**

How are you addressing technical debt? Please select all that apply



Total sample; Unweighted; base n = 153; total n = 156; 3 missing  
Reuters Events' Future-Proofing Energy Assets Survey

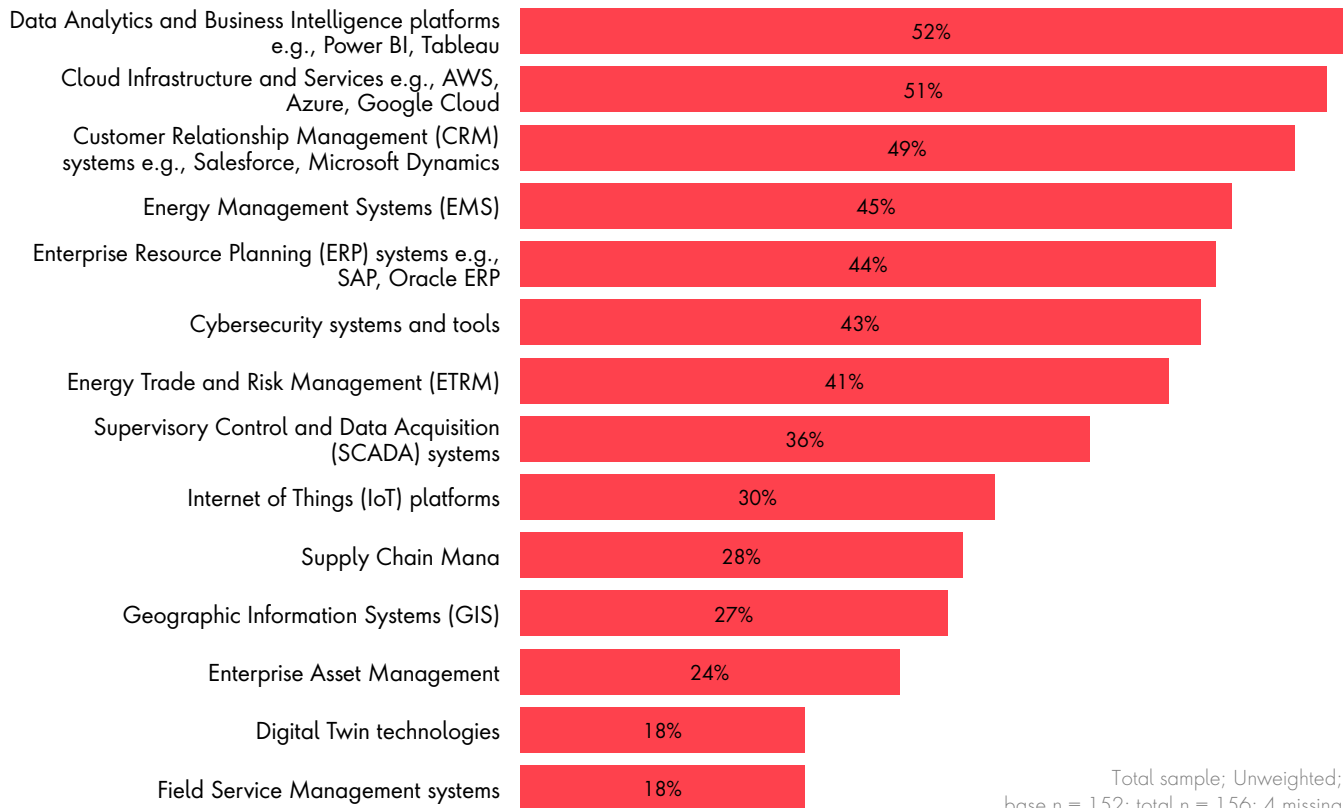
# Legacy Systems: Modernization and Impact

The scale of IT modernization programs becomes apparent when we consider the number of systems that have been improved upon or modernized. As figure 18 shows, more than 40% of respondents have identified seven IT systems or processes that have been modernized to date, from data analytics and business intelligence to energy trading and risk management systems. All of these should be considered core components of a modern IT system, requiring dedicated focus during any IT modernization project.

There is decidedly less concentration, however, with regards to the vendors or providers being used for modernizing legacy assets and IT functions. IBM and Microsoft are the most-used vendors, each selected by 30% of respondents, with Amazon/AWS a close third on 21%.

**FIGURE 18**  
IT modernization is mostly targeting data analytics, cloud infrastructure and CRM systems

At your organization, which IT systems have been modernized? Please select all that apply



Total sample; Unweighted; base n = 152; total n = 156; 4 missing

**FIGURE 19**  
Leading five vendors for legacy modernization projects



(Other providers mentioned include: Oracle, Capgemini, Infosys, Deloitte, TCS, Cognizant, SAP and OpenLegacy)

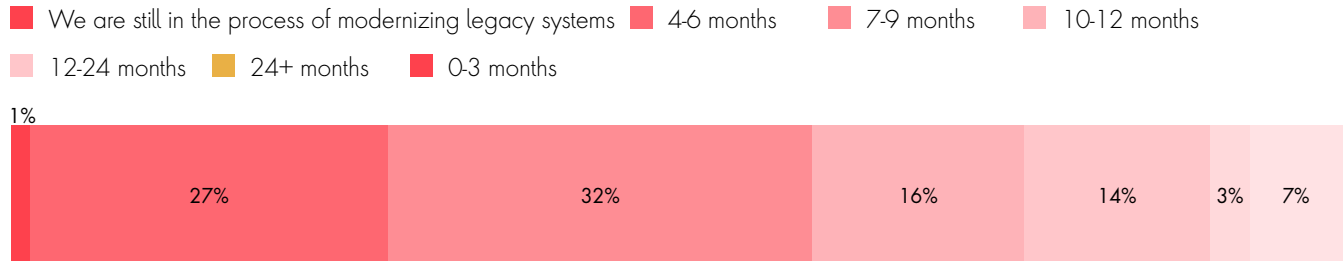
IT modernization projects are often delivered at scale and speed. Only one-third (33%) of respondents reported that legacy systems took longer than nine months to modernize, with nearly one-third (32%) requiring between seven and nine months. While this should only be used as illustrative, energy organizations are largely modernizing systems within a year.

Respondents are, however, reporting an array of risks and challenges. Perhaps most notable is how more than half (55%) of respondents report challenges in managing data integration with other systems that have yet to be modernized. IT modernization may be delivered in a phased approach in order to reduce downtime and upfront costs, however this is evidently having knock-on or residual effects within operations.

FIGURE 20

**A majority of legacy modernization projects complete within nine months**

How long did it take to modernize your legacy systems?

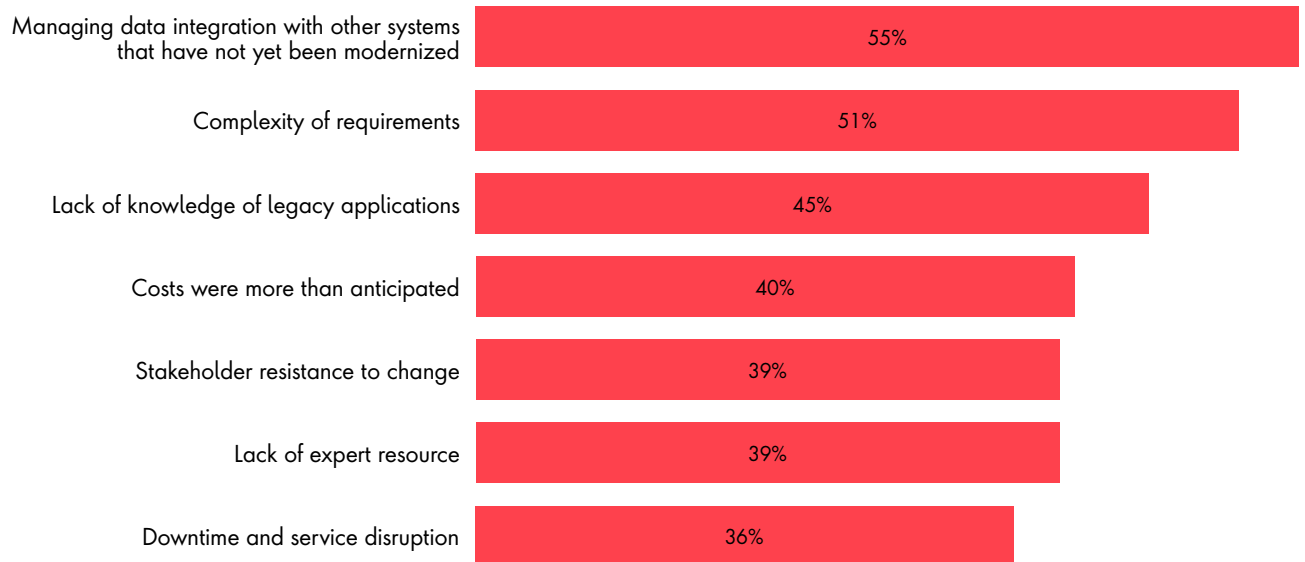


Total sample; Unweighted; base n = 152; total n = 156; 4 missing

FIGURE 21

**Among an array of risks and challenges, data integrations are causing most concern**

What risks or challenges have you encountered during the legacy modernization process? Please select all that apply.



Total sample; Unweighted; base n = 152; total n = 156; 4 missing

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Costs being greater than anticipated was identified as a challenge by 40% of respondents, however our research indicates healthy budgets are being afforded to modernizing legacy systems. Nearly two-thirds (60%) of respondents said at least 41% of their organization’s overall tech budget was being allocated to modernizing legacy systems, which is testament to both the scale of the project and awareness of the costs involved.

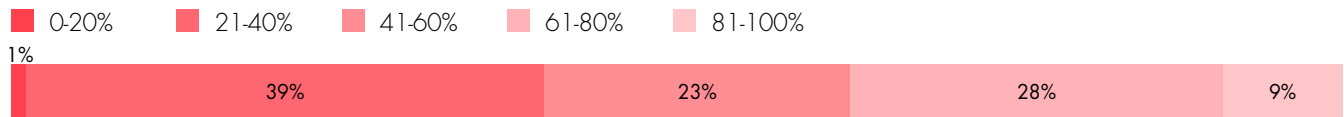
Modernization projects are also being judged against a diverse range of metrics for success. The most important to energy organizations today is scalability or ability to service more users/ transactions (selected by 50% of respondents), which is perhaps indicative of the broader growth strategy for energy organizations today.

The same can be said for how 47% of respondents said IT modernization is expected to provide greater system reliability and reducing outages. System outages, along with threats posed by cyber-attacks, can be significantly costly for energy organizations, both fiscally and reputationally. Ensuring measures are in place to reduce these are key to successful IT modernization projects today.

FIGURE 22

**A majority of respondents said between 21 – 60% of their overall tech budget is being allocated towards modernization projects**

Of your overall technology budget, approximately what is the % share allocated to modernizing legacy systems?

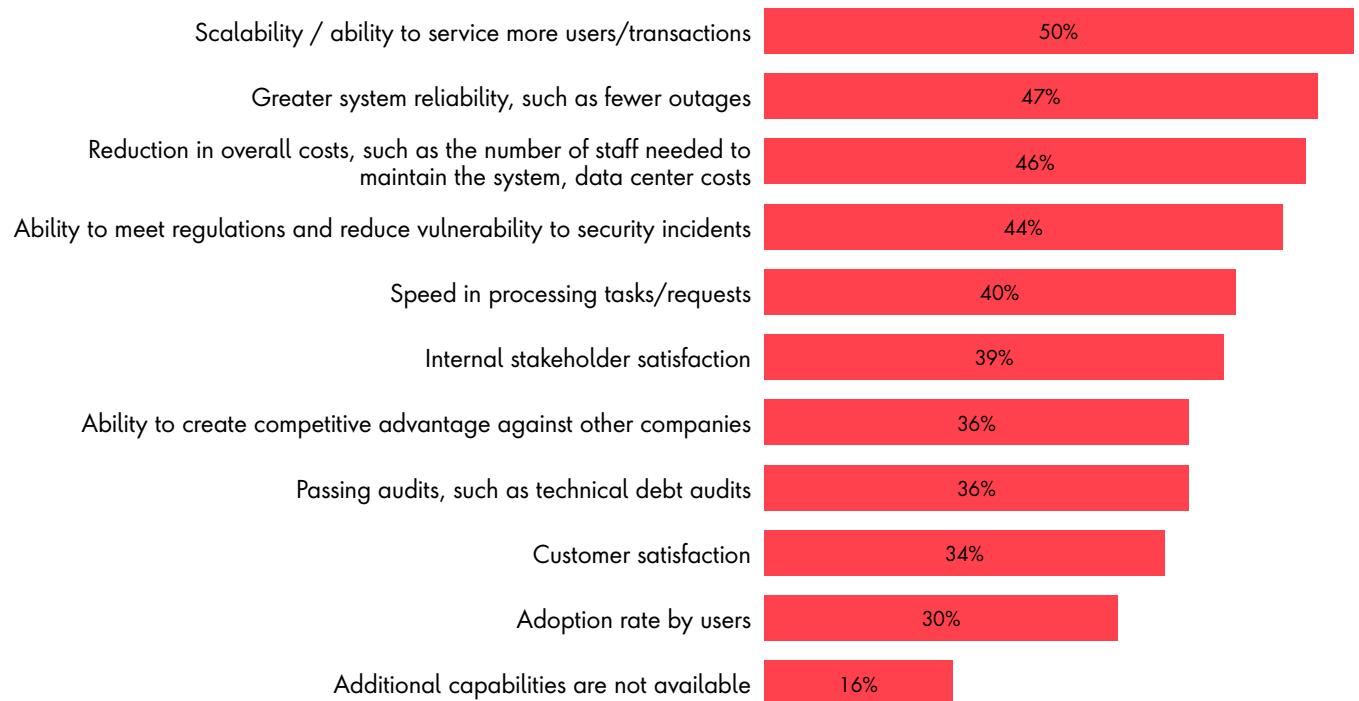


Total sample; Unweighted; base n = 152; total n = 156; 4 missing

FIGURE 23

**Modernization investments are mainly being judged on their impacts on scalability and reliability**

How are investments in projects for modernizing legacy systems being judged? Please select all that apply.



Total sample; Unweighted; base n = 152; total n = 156; 4 missing

Reuters Events’ Future-Proofing Energy Assets Survey

## CASE STUDY

# Drastically Increasing Scale While Cutting Cost of IT Estate

A global electricity and gas utility faced rising costs transitioning from fossil fuels to renewables, with surging data and IT demands. Using AI-powered Slingshot on Microsoft Azure, 420 APIs were converted from Mulesoft to Azure API Management. A self-service portal now enables secure, scalable data access for stakeholders and partners.

### The Imperative for Change

- Our client is a multinational electricity and gas utility company, faced with a challenge of integrating IT and OT assets, where the costs of operation threatened to increase exponentially.
- On an operational front, our client was transitioning from a primarily fossil fuel based generation system to a predominantly renewables based business.
- This meant that the amount of data to be ingested, analysed and acted on had risen from the hundreds of data points for fossil fuel power plants to the several million from each solar panel, wind turbine and battery storage
- On an IT front, the tooling and technology requests was rising at a rapid rate, with a near doubling of need for support
- All of this culminated in a need to upgrade core infrastructure and move the 420 API's to a faster, cheaper and safer alternative

### The Transformative Solution

- 1. Leverage AI tooling to automatically analyse API's:** Slingshot, built on Microsoft Azure, was utilized to automatically extract code for 420 APIs from Mulesoft. Given that Mulesoft is a dedicated middleware platform, understanding how data was transformed in transit was critical.
- 2. Utilise AI toolkit to create API code:** We leveraged Publicis Sapient's AI-driven tooling to seamlessly convert Mulesoft code into Azure API Management (APIM) code (Java), ensuring compatibility and performance optimization.
- 3. Build self service portal:** To reduce reliance on IT personnel, we are building a self-service portal, on Microsoft Azure that will support internal and external stakeholders. External customers will be integrate in automatically with the systems to dynamically send data on energy generated. Internal customers will be able to transparently access data across the enterprise with the right permissions at all times.

### Impact

Our programme delivered real returns commercially and operationally. Critically, we drastically reduced the effort and time taken to bring on board new services for customers and internal programmes.

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## £5m

Direct annual reduced cost

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## 8mo to + RoI

Project scheduled to be RoI positive within 8 months

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## \$15.2m

Direct improvement to bottom line within 3 years

# Change Management and Employee Engagement

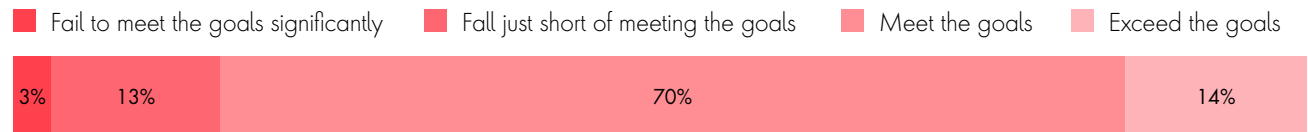
Given the importance of IT modernization projects to ensuring energy organizations are fit for future challenges, the sector should take confidence in their rate of success. Just 16% indicated that their organization's most recent IT modernization project did not meet the goals set, with 13% of them suggesting the project had just fallen short. Indeed, 14% said the project had exceeded expectations.

The success of IT modernization projects in meeting targets has been largely attributed to sufficient planning and preparation, in addition to ensuring that timing and overall objectives are clear and well-researched. This should therefore be considered a pre-requisite for any IT modernization project. Meanwhile, of those that have failed to meet their goals, the most common complaint among respondents was of difficulties with legacy systems or integrating the two.

**FIGURE 24**

## It's rare that IT modernization projects are failing to meet pre-determined objectives

Thinking of your organization's most recently completed IT modernization project, how would you rate the success in terms of how much it achieved the goals previously set out?

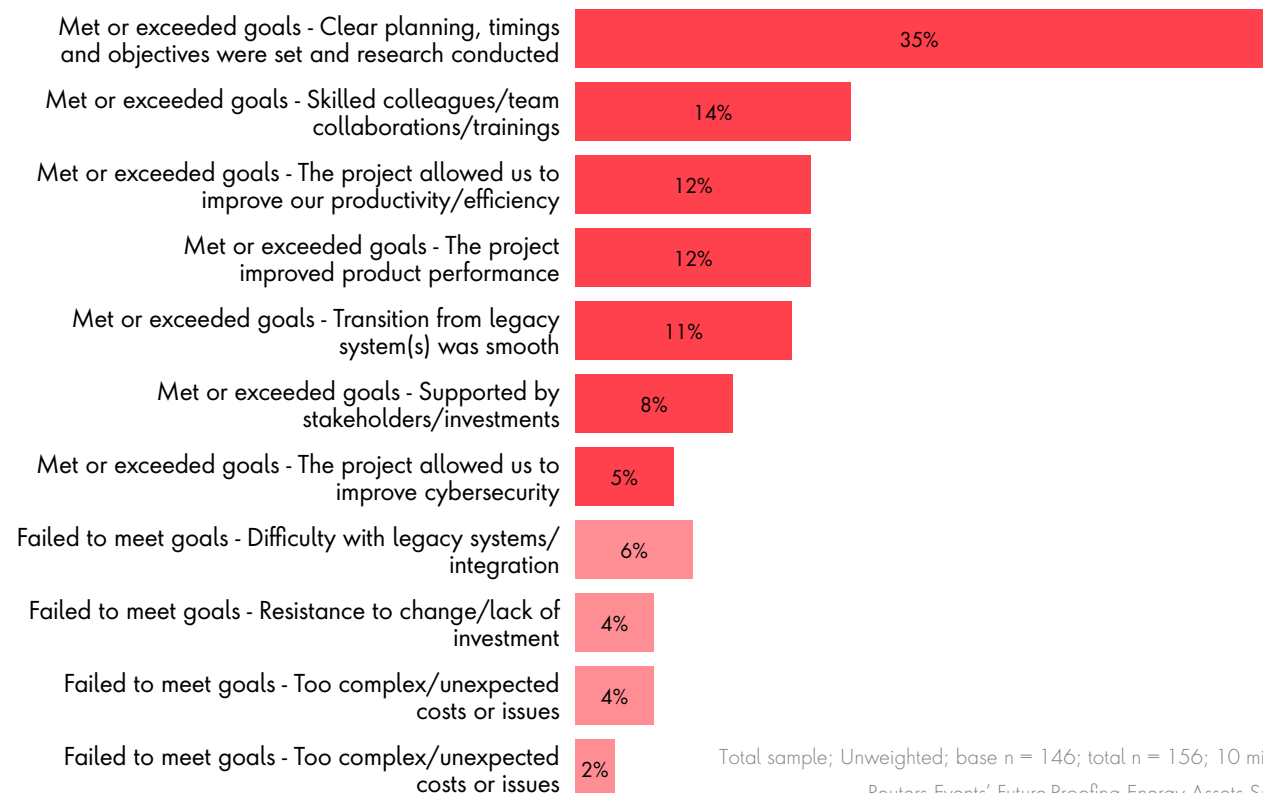


Total sample; Unweighted; base n = 152; total n = 156; 4 missing

**FIGURE 25**

## Determining clear planning, timings and objectives is critical to project success

Why did that IT modernization project fail or meet/exceed its goals? [Coded from open text]



Total sample; Unweighted; base n = 146; total n = 156; 10 missing  
Reuters Events' Future-Proofing Energy Assets Survey

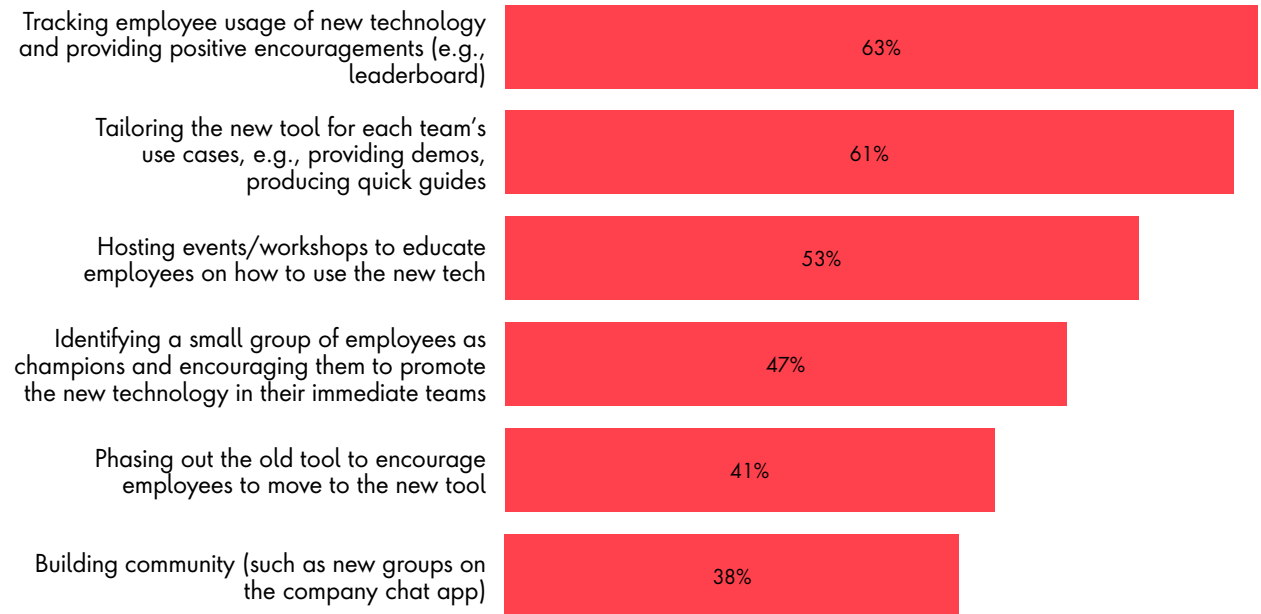
Another critical component of IT modernization projects is ensuring that employees are engaged throughout the process. From initial project scoping to delivery and eventual change management, employees must be included to ensure new systems and processes are adhered to.

A significant majority (91%) of respondents reported that employees were engaged throughout their most recent IT modernization project, a reflection of how businesses have approached such programs. Organizations reporting success with employee engagement attributed this to a range of different strategies, including tracking employee usage of new technologies (63%), tailoring tools for specific use cases (61%) and hosting events to showcase new technologies (53%). Less success, meanwhile, was reported through creating communities to support new technologies.

**FIGURE 26**

**Energy organizations are tracking employee usage and tailoring tools for specific purposes to increase engagement**

What efforts were made to improve employee engagement? Please select all that apply.



Total sample; Unweighted; base n = 152; total n = 156; 4 missing  
Reuters Events' Future-Proofing Energy Assets Survey

# Actionable Insights



## Cybersecurity and AI the twin pillars of IT modernization

Energy organizations must simultaneously strengthen cybersecurity and accelerate AI adoption as both are seen as critical to operational resilience and innovation.



## Data quality and integration are foundational to success

Prioritize improving data quality and ensuring seamless integration across systems. Nearly 80% of respondents cite data reliability as the top objective for data platform investments.



## ESG and sustainability remain strategically important

Despite concerns over the perception of sustainability, it remains important for IT modernization to align with ESG goals, especially for large enterprises.



## AI use is expanding across the value chain

Deploy AI in high-impact areas such as infrastructure maintenance, risk management and energy trading. Popular future use cases include predictive maintenance and strategic planning



## GenAI adoption requires strategic planning and talent development

Address barriers to GenAI by developing a clear implementation strategy, investing in internal expertise and sourcing high-quality training data tailored to energy-specific use cases.



## Cloud strategies must be flexible and scalable

Adopt hybrid and multi-cloud architectures to meet diverse operational needs. AWS, Microsoft Azure and Google Cloud dominate the energy sector's cloud landscape.



## Legacy system modernization must be phased, well planned, sufficiently funded and aligned to business imperatives

Modernize legacy systems in phases to manage integration risks and avoid downtime. Budget allocation is critical.



## Employee engagement drives modernization success

Ensure employees are engaged throughout the modernization process, particularly in areas that require coordinated change management. Usage tracking and tailored tools boost adoption.

# Methodology

This report is based on the findings from Reuters Events' Future-Proofing Energy Assets Survey, carried out in Q2 2025. Survey invitations were via an external panel.

The survey engages with professionals from a range of organizational types across the energy value chain such as oil and gas companies, renewables developers, independent power producers, grid owners/operators and others. To qualify for this survey, respondents were required to say that their role involved one of the following: managerial/decision-making capacities within the IT/digital teams of energy organizations, exposure to energy trading and/or exposure to energy supply.

Respondents were also required to indicate that their organization operates in at least one of Europe, the Middle East or North America. A total

of 156 respondents across the globe participated in the survey with 63% of respondents' organizations operating in Europe, 43% in North America, 17% in the Middle East, 9% in Asia-Pacific, 5% in South America and 3% in Africa.

Lastly, respondents needed to answer that their organizations annual revenue is \$250m+. 13% of respondents said \$250m-\$1bn, 38% said \$1bn-\$50bn, 15% \$50bn-\$100bn and 34% \$100bn+.

The data was gathered through web surveys which were designed and implemented following strict market research guidelines and principles. For data analysis, significance testing at 95% confidence intervals was conducted. There might be limitations where the survey cannot represent an overview of all limited partners; the representativeness might be limited in certain regions.