



# Reviewing insured values: How to maximize return on capital

Statement of values are not just a mechanism for calculating insurance premiums. Here a WTW expert shows how they can drive optimal business, insurance, and risk management decisions for energy companies.

## Introduction

Supply chain disruption is inflating insured values and lengthening restoration periods, due to specialized equipment requiring lead times often exceeding a year. It's also significantly increasing the cost of materials and labor, thereby driving up the values that energy companies should report at renewal.

If an energy company faces a business interruption event, it will want to avoid further pain in its recovery. Today, this means ensuring that policy terms and conditions reflect longer timeframes and increased costs. And when insurers are regularly suggesting buyers increase their stated property values for building and equipment values by 15%-20% (compared to the typical 1%-5% year-over-year increases the sector has experienced historically) the hunt is on for better value.

But in the pursuit of the precise cover required at an appropriate price, energy companies can also uncover further strategic advantages and ways of upping their return on capital. In this insight, we look at how to assess insured values to identify optimization opportunities in the current market conditions.

## Avoiding over or understated values

Avoiding overstated values means energy companies won't pay increased insurance premiums and deploy business resources inefficiently. To achieve this, they will want to avoid some common mistakes, such as starting the values worksheet completed as part of the renewal process based on gross sales versus net sales. Net sales accounts for any discounts, freight and royalty expenses that would be considered variable in nature when presenting Business Interruption values. This means that a company's values will be overstated if it is not properly accounting for the saved selling expenses, and so the overstated values may result in an increased insurance expense.

On the flipside, if an energy company reports understated values, it could encounter significant issues following a loss, resulting in uncovered losses for amounts exceeding stated limits. Furthermore, insurers often include average or co-insurance clauses when lacking confidence in the reported values. A common mistake here that results in understated values is where policyholders report gross profit as per the profit and loss statement. Policyholders cost of sales may include continuing expenses or fixed expenses such as labor and depreciation, which should be included to ensure

the accuracy of the value and protect the business properly in the event of a claim. The financial impact of under-reporting a company's values can be devastating if a catastrophic loss occurs and the recovery is limited to the reported value.

### Understand the assets' context

Insured values are the starting point in the property insurance purchasing process, meaning that accurately measuring and presenting these values is key.

During the renewal process it's critical to understand the company's energy industry locations, building construction types, and the location where the equipment is originating from. Increases in construction cost inflation rates vary widely between countries and regions.

Presenting the specifics of an energy company's business and articulating its operations and the risk mitigation and controls in place is the first step to seeking improved value.

### Analyzing values comprehensively

Historically, from our experience many energy companies may not have spent significant time and resources on the valuation process, perhaps only inputting the basic information into an insurer's statement of values worksheets at renewal.

However, the current economic conditions mean that it is crucial a more comprehensive analysis of values is performed. This should consider all the key factors that can impact the company's renewal, including the current market trends for structure and equipment repair, replacement costs and timelines, which could all leave the business facing significant shortfalls in reported values if not handled appropriately.

For example, suppose an energy company has total reported values on property, plant and equipment at US\$900 million in 2020 and this was increased by the traditional 1-2% in subsequent years; the values are therefore up by US\$18 million to US\$918 million in 2021, then up by US\$18.36 million to US\$936.36 million in 2022. Let's also say that the company increases total reported values this year by 2% to US\$955 million in 2023. Given the current conditions and an inflation rate of roughly 12%, a more accurate total reported value might be US\$1,055 million so the company's property plant and equipment values could be understated by around US\$100 million.

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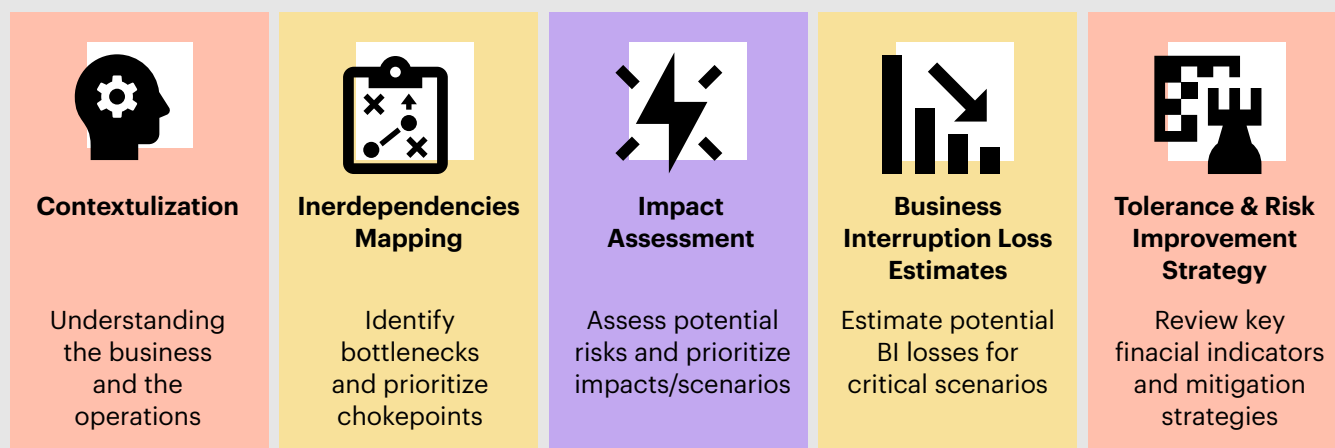


### Other factors to analyze at renewals

Assessing the following factors will also help energy companies build up a more accurate picture at renewals and therefore prevent their business from either facing deficiencies in the event of a claim or paying too much for cover:

- Replacement cost versus actual cost value in the policy terms and conditions
- Historical results versus current plans for projected volume, grade, and yield
- Capacity at key production stages and any production bottlenecks
- Contractual price obligations and future spot market or commodity pricing, including potential currency fluctuation impacts
- Matching ordinary payroll coverage to labor agreements/union contracts
- Scheduled major maintenance outages that would impact operating income
- Any planned equipment upgrades impacting production levels
- Potential mitigating expenses:
  - Meeting contractual obligations
  - Increased labor/overtime
  - Increased travel including room and board expenses.

Figure 1: mapping interdependencies



Source: WTW

### Interdependencies mapping

The process of generating accurate insured values can lead energy companies into exploring their broader vulnerabilities and where resources can be deployed most efficiently. In preparation for renewal, energy companies need to produce answers to the following questions:

- Does the company have a deep understanding of the interdependencies that would impact our operations and its ability to recover in the event of severe disruption?
- Where are the chokepoints?
- Is the company prioritizing the resiliencies around its chokepoints?
- Can the company present how it mitigates the risk of severe disruption more compellingly?

After understanding the interdependencies, the next step is to undertake impact assessments around the potential risks and impact scenarios, then estimate the potential Business Interruption losses under critical scenarios.

These exercises will not only mean that the company enters into renewal negotiations with accurate information, but could have broader, strategic advantages. The insight could lead to the company to review the key financial indicators and mitigation strategies and resetting the organization's risk tolerance approach and risk improvement strategy.

### Conclusion: why specialists for reliable assessments may be needed

Accurately reflecting insured values and seeking broader optimization opportunities is not always straightforward. Energy companies may need to call on experts to ensure that the pre-loss valuation process is a fully comprehensive, accurate, and reliable assessment of loss exposures and values, such as:

- **Engineers and appraisers**, to assist with building and equipment replacement cost or actual cash values measurement
- **Forensic accountants**, who are able to quantify Business Interruption values and values at risk precisely
- **Risk engineers**, to perform risk assessments and maximum foreseeable loss (MFL) scenarios.



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# Supply chain risk: Key findings of our recent survey

## Introduction: supply chain risk increasingly an issue for energy risk managers

The supply of energy has never been as critical, or as contested, as it is today. The question of how we heat and light our homes and run our transportation – and how much it costs – is at the centre of economic, political and social discussions.

Urgent action is needed to guarantee affordable supplies today and power the transition to clean energy tomorrow. But the supply chains that underpin both these objectives are struggling to meet demand. Project times are lengthening and costs spiralling, as companies compete to get the raw materials and equipment they need on time, putting future plans at risk.

How are energy businesses adapting? To find out how the sector is navigating this challenging landscape, we commissioned both our WTW Global Supply Chain Risk Report and our 2023 Energy Supply Chain Risk Report, both of which were published in March 2023<sup>1</sup>. For the latter, we surveyed 100 risk and supply chain leaders in sub-sectors including upstream oil and gas, downstream power generation and renewable energy. We asked them how they saw the supply chain landscape, the nature of the main challenges and risks they face, what they are doing to overcome obstacles in trying to build resilience and finally what they think the supply chains of the future may look like.

## Five key findings from our Report

The five most interesting findings from our Report were:

- 83% cited a lack of insurance solutions to be among the greatest challenges in addressing their supply chain risks.
- 67% of businesses said that losses related to the supply chain had been higher or much higher than expected over the last two years.
- 39% named shortage of raw materials as among the biggest supply chain factors expected to impact their businesses over the next two years, topping the list of concerns.
- 84% said they have made at least some improvements in their approach to supply chain management in response to the pandemic.
- 65% said developing a detailed understanding of their supply chain would have the greatest impact of supply chain challenges could impede the energy transition.

Around the world, countries and governments face the same energy challenges – how do they keep the lights on while also meeting their climate targets and accelerating the transition to clean energy? With the conflict in Ukraine, these challenges have become starker and costlier.

<sup>1</sup> <https://www.wtwco.com/en-gb/insights/2023/03/2023-energy-supply-chain-risk-report>

Less discussed, but no less critical, is whether energy supply chains can deliver the infrastructure and operational capacity needed to meet these aims. Lead times have been lengthening for both upstream and downstream projects, due to shortages of critical components and squeezed contractor capacity.

Many companies are heavily reliant on single-source contractors, suppliers and logistics providers, who themselves face problems sourcing raw materials and finding the experienced staff needed to service projects.

Critical minerals needed for clean transition technologies are in short supply, while the cost of all these inputs has been spiralling. Growing demand in 2023 and beyond could exacerbate bottlenecks and delays, further extending project timelines.

### Counting the cost of disruption

These underlying challenges may explain why, at a time of record profits for many energy companies, more than two-thirds of respondents (67%) said that their losses specifically related to supply chain risk were higher or much higher than expected over the last two years. A large proportion (43%) agreed or strongly agreed that supply chains risks had been increasing before the pandemic.

However, experiences and learnings from the last few years have motivated businesses to increase robustness and resilience. A majority in this survey (59%) said they have made some improvements in their approach to supply chain management following the pandemic. A further 25% said they have completely transformed their approach.

### Collaborating to reduce risks and losses

When asked about the greatest opportunities to improve supply chain management, increased collaboration with customers (61%) came top of the list, followed by strategic planning within their organization (59%) and increased collaboration with suppliers (51%).

These results underline the need to work closer with key partners to optimize current supply chains where switching suppliers is often not an option. Almost three-quarters (71%) agreed or strongly agreed that a lack of alternative suppliers impeded their ability to implement an effective dual or multi-source strategy in managing supply chain risks.

### Supply chains showing the strain of rapid growth and change

A huge amount is being asked of the energy sector, from finding alternative sources of hydrocarbons to reduce western dependence on Russian oil and gas, to securing the green energy transition. All of this takes huge investment and project capacity, as well as the creation of new supply chains for emerging technologies such as hydrogen, renewable energy, and carbon capture and storage.

In a time of rapid change and growth, the suppliers and contractors needed to deliver this capacity face their own challenges, including shortages of materials and skilled workers. The result is that lead times for delivering key equipment have doubled in some cases. The cost of many projects has spiralled far in excess of original budgets, while the cost of insuring them has also increased as values and possible losses are higher and longer indemnity periods are needed to cover them.

With demand outstripping supply, there is little spare capacity available elsewhere if companies look for alternative suppliers. To manage these gaps, some companies are making part-sharing agreements, or dismantling older equipment in an effort to keep existing rigs and infrastructure up and running.

Companies are also looking to use digital technologies to improve condition monitoring to inform supply chain needs in advance. Some are carrying out reviews with suppliers to improve the resilience and security of the supply chain. That can mean improving and clarifying the terms of framework agreements, obtaining full visibility of how and where raw materials and equipment are being produced at pre-agreed costs, and taking a complete holistic view of all the supply chain factors that could impact their critical assets.





## Risks and uncertainty are growing

The risks that energy and power companies are concerned about in their supply chain reflect uncertainty and volatility in the sector as a whole. Shortages, delays, price inflation and geopolitical instability were all top of mind for respondents to our survey. Wider external factors such as cyber security and supply chain sustainability were also leading concerns.

- **Critical shortages:** shortage of raw materials (39%) was named as the biggest supply chain factor expected to impact businesses over the next two years. Construction delays, which are linked to shortages, were also near the top of the list. As we've discussed, the loss of one source of raw materials or equipment can delay work and hold back activity, which is costly at a time when the energy business is generally highly profitable.
- **Economic risks:** economic uncertainty emerged along with inflation and rising costs as the leading factors underlying supply chain risks, ranked by 32% to be among their top concerns. This may reflect escalating project costs, which in some cases have increased by up to 40% against budget even before the work starts. Rising costs and volatile energy prices can influence projections of income and growth, potentially reducing the scope for future investment.
- **Geopolitical risk:** this risk was among the factors thought to have the greatest impact on supply chain risks, rated by 56% as medium and 23% as high impact. Along with the massive disruption to oil and gas supplies, the Ukraine conflict has also cut off a major source of lithium needed for transition technologies. Other potential sources of minerals in African countries are compromised by conflicts and human rights abuses. China produces up to 60% of mass-manufactured clean energy technologies, so tensions between that country and the west could pose a risk to supplies of critical equipment and components.
- **Cyber risks:** contractors, suppliers and equipment manufacturers in the energy sector are increasingly digitalizing and automating their processes. On major projects, they may all share the same systems, adding potential entry points for malware into sensitive equipment. These trends may explain why cyber risks were believed to have the most profound effect on supply chains, rated by 62% as medium and 29% high impact.
- **Climate change:** more than half (56%) placed climate change and environment among the top global trends affecting supply chain risks. This may reflect concerns over the impact of extreme weather and drought on the resilience of energy infrastructure and supply chain, the need to decarbonise operations and production processes, as well as concerns about progress towards a low carbon future. The supply chain needs to deliver with greater speed and innovation if the world is to make a successful transition towards clean energy.

- **ESG:** like other sectors, the energy industry is under mounting regulatory and public pressure to source responsibly and sustainably. Much more effort is going in to make sure that activities such as oil extraction and raw materials mining are not tainted by exploitation or abuse. In our survey 87% said that ESG is a specific selection criteria when selecting new supply chain vendors, while 82% said sustainability was a key goal for their supply chain. Almost half (46%) named ESG among the top global trends with the greatest influence on supply chain risk.
- **Pandemics:** though we may be past the acute disruptive impacts of COVID-19, the risk of a new strain of the virus, or a new unforeseen pandemic, seems to be still front of mind, topping the list of global trends with the greatest influence on supply chain risks at 58%.

## Building supply chain resilience through knowledge

Supply chains are going to be even more critical to success in the coming years, given the demands and expectations on the sector to deliver a future of clean and secure energy. However, as we've seen, suppliers and contractors are facing a range of challenges which could impede this progress.

Our survey suggests there is a growing awareness of supply chain risks and a renewed focus on improving resilience. More than a third (37%) say the investments they've already made to strengthen their supply chain have greatly improved its robustness – higher than any other sector in our Global Supply Chain Survey – while a further 56% said robustness has somewhat improved as a result. The vast majority (89%) say they have either a strategic or proactive approach to supply chain management.

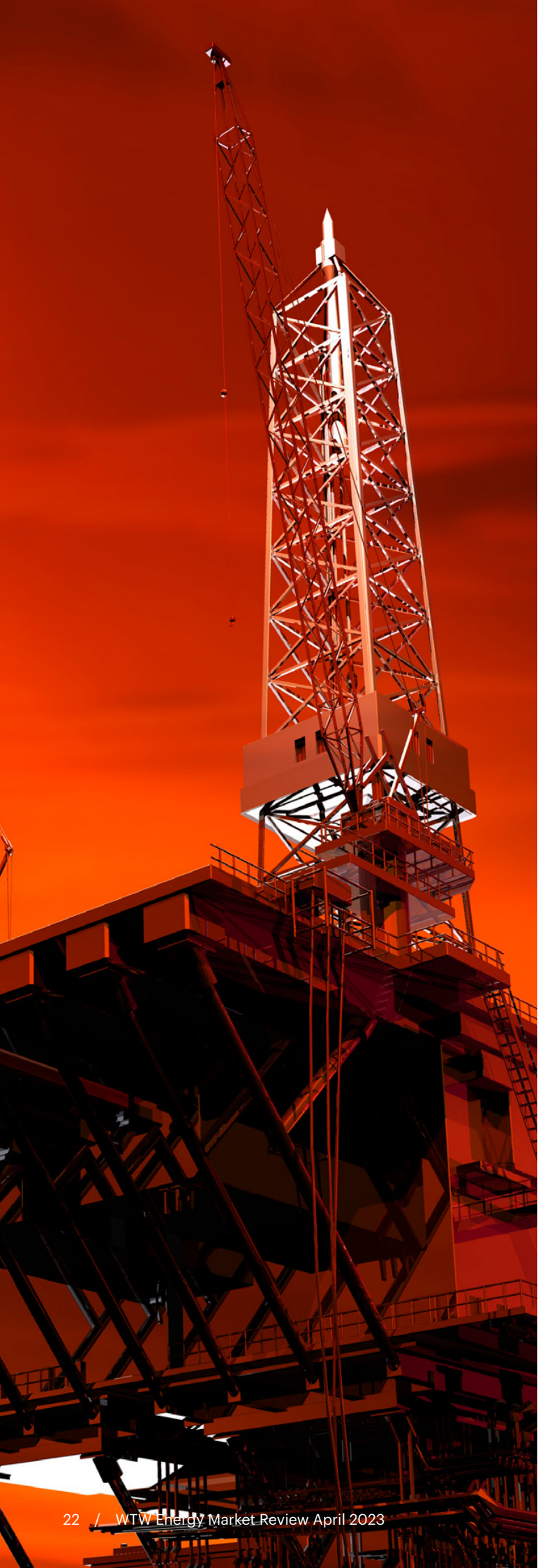
## Gaining transparency and visibility

As energy supply chains become more critical and complex, there's a greater focus on increasing knowledge and achieving end-to-end visibility. When asked what factor would have the greatest impact in terms of managing their risks, 65% said developing a detailed understanding of our supply chain, 60% said a detailed understanding of supplier networks and 51% said improving relationships with suppliers and customers.

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### **Lack of data and insurance are roadblocks**

But businesses face considerable obstacles getting hold of all the data they need to achieve full visibility. Almost three-quarters (74%) said they lacked the data and knowledge to understand their risks. A larger number (81%) agreed or strongly agreed that supplier concerns about protecting intellectual property and trade secrets made it difficult to achieve full transparency through the supply chain.

More than four-fifths (83%) said a lack of insurance solutions was among the greatest challenges to addressing their supply chain risks. This may reflect the lack of cover for many supply chain losses experienced during the pandemic, which were often unrelated to physical loss or damage and so not covered - even where clients had purchased Contingent Business Interruption cover.

### **Mapping and visualizing the supply chain**

Using tools that map the supply chain can help businesses start to understand where they have gaps in information and data and begin to fill them. A total of 40% of our respondents said using supply chain mapping software was among the measures that would have an impact in managing risks.

Diagnostic tools, such as WTW's Supply Chain Risk Diagnostic, enable companies to map the location of all the links and assets in the chain and assess how they connect and interact with each other. This transparency can give organizations a panoramic overview of dependencies and risk factors to enable better decision making.

### **Impact on insurance cover**

Supply chain issues have a major impact on energy companies' cover. Because energy is so dependent on high value infrastructure, materials and equipment, insurers want to know about who will be supplying, building, replacing or repairing the relevant items.

At WTW we are regularly seeing insurers asking for more detailed information. Even where suppliers are well-established, we're getting questions around where they are manufacturing equipment, availability of critical spares, rising costs of spares, and the skills, availability and experience of their contractors and workforce. There's a broad expectation that it will take longer to reinstate physical loss or damage than it has done in the past, which increases the pressure for longer indemnity periods. There are also the escalating costs of global transportation to consider, due to fuel and commodity price fluctuations.

Most energy companies risk manage their exposures to supply chain delays and disruption very well internally, and buying insurance is a back-stop. Some of the ways they've traditionally done this is by holding critical spares or entering agreements with suppliers and Original Equipment Manufacturers (OEMs).

There is a renewed focus from client companies on Contingent Business Interruption to cover some of the potential losses, both on a damage and non-damage basis. However for non-damage cover, this can be expensive and limited in scope.

One of the best ways to mitigate supply chain risks is to work with manufacturers, contractors and suppliers that have a proven track record. They are not only more likely to deliver what they promise, but also have the resources needed to speed things up and work with the client to mitigate the business risk.

### Conclusion: six steps to building your supply chain resilience

Our survey has shown some fascinating insights into how the energy industry views the supply chain issue. We would conclude by offering energy companies these six steps to improving your supply chain resilience:

1. **Make resilience a boardroom priority:** embed it in the strategic planning and execution process, with structured governance to ensure that decisions are made and acted on at the correct level and the right time. This can be associated with existing business risk assessments.
2. **Reduce reliance on single suppliers and locations:** relying on a single source for critical components and raw materials creates vulnerability - so can using multiple suppliers in the same geographic area. Wherever possible, expand your network of suppliers and locations.
3. **Develop closer working relationships:** working more closely with suppliers, especially at Tier 1, can help you gain a better understanding of the wider supply chain and increase resilience. Being a partner rather than just a client can help overcome barriers to disclosing proprietary data.
4. **Reconsider just-in-time models:** firms should develop a balance between just-in-time and just-in-case inventory levels to build contingency and strengthen physical assets to withstand climate events, and to provide support to distressed essential suppliers.
5. **Aim for end-to-end visibility and transparency:** supply chain mapping software tools allow businesses to obtain a more complete picture of all the relationships and flows in the supply chain, with live event-tracking to support proactive risk assessment and decision making.
6. **Stress-test your response:** use scenario planning and simulation modelling, such as digital twinning, to quantify the impacts and mitigate the effects of risks. Also consider 'red teaming' to obtain an outside challenger view on policies and processes.

The energy sector is highly reliant on its supply chain to build, install and operate the critical equipment and infrastructure needed to power the world into the future.

Those dependencies will only increase, as the business of hydrocarbons and thermal power transitions to renewables over the coming decades.

On that journey, the industry faces difficult supply chain challenges, from shortages of raw materials and critical minerals shortages to capacity constraints and a lack of alternative sources and suppliers. Our survey shows that businesses are working to overcome these problems and considering a range of strategies to increase resilience. However they're hampered by an inability to get hold of enough accurate data on the supply chain to manage their risks.

Working more closely with suppliers as partners can help companies understand their supply chains better and address these risks. Diagnostic mapping and monitoring tools, together with analytics, can help to visualize, quantify and assess risks across the supply and in specific locations.



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