# Risk Consulting

1 • 2026

## Insights into risk management and loss prevention



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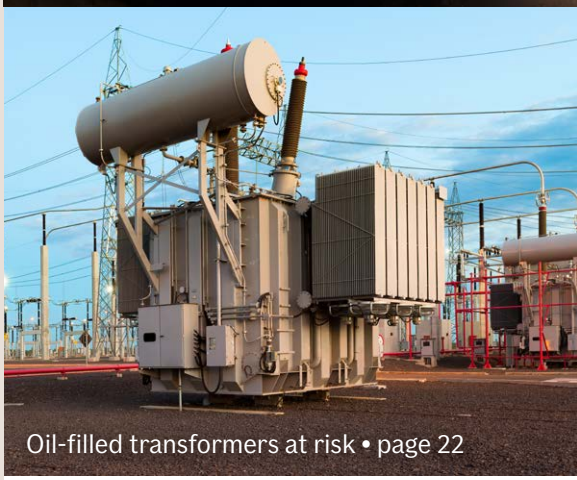

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EDITORIAL

# Powering through uncertainty

Across Europe, and particularly in the Nordic region, the momentum behind renewable energy remains strong. Governments, companies and investors continue to support the expansion of wind and solar power, alongside the infrastructure required to enable a low-carbon future.

We should continue to focus on climate adaptation, but in a world defined by uncertainty, the path forward is no longer linear. Geopolitical tensions, supply chain disruptions and fluctuating demand are forcing organisations to recalibrate. While ambition remains high, there is growing recognition that existing grids and supporting infrastructure are not fully equipped for a rapid, large-scale shift to decentralised and variable energy production, especially as electrification accelerates across industries and sectors.

At the same time, extreme weather events are intensifying in frequency and intensity. This puts additional pressure on energy systems that were not designed for this level of volatility. Reliable energy remains the backbone of modern society: it powers businesses, sustains communities and underpins economic resilience. As energy systems become more interconnected and complex, ensuring security, stability and continuity of supply is more critical than ever.

So how do we balance ambition with operational reality? What happens when renewable energy systems meet legacy infrastructure? And how can we secure consistent and resilient energy production in a world shaped by rising demand, evolving risks and increasing uncertainty?

Progress will depend not just on innovation, but on our ability to stay resilient in a world that refuses to stand still.

In this issue of Risk Consulting, we explore these questions from multiple perspectives. We examine the shifting dynamics of work practices, the importance of business continuity in an unpredictable global landscape, and the evolving risk landscape for natural catastrophes. We also look at the engineering challenges behind slowing onshore wind development, as well as resilience strategies for data centres. ●

Poul Steffensen
Head of Business Area Industrial

RISK MANAGEMENT

# Rising natural catastrophes

By **Vilma Torkko**, If

The 2025 loss year confirmed what the insurance industry has already been experiencing for several years. Natural catastrophes are no longer rare and exceptional, but they have become persistent, high-severity events that shape the operating environment for societies, businesses, and insurers.

According to the Swiss Re Institute, insured losses from natural catastrophes reached USD 107 billion in 2025. This marks the sixth consecutive year in which global natural catastrophe (Nat Cat) losses exceeded USD 100 billion. What was once considered an unusually costly year has now become the norm.

## Wildfires and severe storms drive losses

The elevated loss level in 2025 was driven primarily by the Los Angeles wildfires. These fires alone generated an estimated USD 40 billion in insured losses, making them the most expensive wildfire event ever recorded. The scale of destruction highlighted how vulnerable densely populated and high-value areas are to climate-driven extreme events.

In addition to wildfires, severe convective storms contributed approximately USD 50 billion to the global total. As a result, 2025 became the third costliest year on record for this peril. Convective storms, including hail, tornadoes and severe thunderstorms, were once associated with relatively modest and regional losses. Today, they represent a structural and increasingly global driver of insurance severity.

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> “We seek to understand risks, and we write risks that we understand.”

More than 80% of all insured Nat Cat losses in 2025 occurred in the United States. The combination of wildfire exposure, frequent storm activity and growing concentrations of insured assets continues to amplify loss outcomes. As populations expand and property values increase in exposed areas, the financial consequences of natural hazards grow accordingly.

## Shifting risk perceptions – but not reduced risk

Despite high loss levels, natural catastrophes ranked only fifth in the Allianz Risk Barometer 2026. Corporate attention has shifted toward cyber risk and artificial intelligence, which now occupy the top two positions globally.

However, this shift in ranking does not mean that natural hazards have become less relevant. Instead, it reflects changing corporate priorities in a world shaped by geopolitical uncertainty, rapid technological development and increasing cyber complexity.

The report emphasises that natural catastrophe risk remains highly relevant. Quieter headline seasons, such as the 2025 Atlantic hurricane season, in which no major hurricanes made US landfall, should not be seen as a sign of diminishing underlying risk. As both reports underline, annual loss outcomes are volatile. However, the long term drivers of catastrophe risk, for example, exposure growth, climate change and aging infrastructure, continue to intensify.

## Europe and the Nordics

In Europe, 2025 offered a clear example of how hazard and exposure interact. Severe hailstorms occurred across several regions, yet insured losses remained relatively limited. This was not because the storms were weak, but because of most intense activity struck areas with lower concentrations of high-value assets. This illustrates a crucial principle, losses depend not only on how severe an event is, but also on where it occurs.

In the Nordic region, events such as Storm Hans in 2023 have already demonstrated how heavy rainfall and flooding can cause significant disruption. As precipitation patterns shift and extreme rainfall becomes more intense, flood-related exposures are increasingly relevant for businesses and communities in the region.

Reflecting the global shift in hazard severity, If now evaluates Nordic natural hazard exposures using the same standards applied worldwide. This approach ensures greater consistency in underwriting and places stronger emphasis on understanding location-specific vulnerabilities. According to the Swiss Re Institute, disciplined underwriting and consistent risk evaluation are essential as reinsurance market conditions evolve and capacity becomes more selective.

If’s approach to natural hazard underwriting is guided by a clear and simple philosophy: “We seek to understand risks, and we write risks that we understand.”

Head of Green Energy and Construction Unit, **Sofia Hidén** notes that, “In practice, this means that higher natural hazard exposure requires deeper analysis and more selective deployment of capacity. Natural catastrophes are inherently uncertain and can produce extreme losses. Helping our clients to understand and manage their exposures as well as our own underwriting volatility is therefore critical to maintaining a stable and sustainable insurance offer to the market.”


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As climate-driven extreme weather events become more frequent and severe, applying consistent global standards is increasingly important. A structured and disciplined approach strengthens long-term insurability and supports sustainable risk-taking.

## The dual role of insurance

Previously mentioned reports emphasise that the insurance sector holds a dual responsibility: providing financial protection after disasters and promoting resilience before they occur. Insurance acts as a crucial safety net that enables communities and businesses to recover more quickly following catastrophic events. At the same time, insurers help strengthen resilience by supporting risk-based pricing and improving modelling capabilities. They also encourage stronger construction standards and collaborate with public authorities to enhance preparedness and long-term risk reduction. The 2025 earthquake near Russia, which triggered tsunami alerts but resulted in limited casualties, demonstrated the value of early warning systems, effective risk communication and resilient planning. Preparedness saves lives and reduces economic disruption.

While natural catastrophe losses remained high, the 2026 Allianz survey highlighted another growing vulnerability: supply chain resilience. Only three percent of companies consider their supply chains very resilient, reflecting growing pressure from interconnected risks, including geopolitical tension, cyber dependency and climate related disruptions. This means that natural catastrophes can no longer be viewed as isolated physical events. They increasingly interact with technological and geopolitical risks, creating multi crisis scenarios that challenge traditional risk management approaches.

These overlapping risks create complex, multi-crisis scenarios that challenge traditional risk management approaches. Companies must therefore look beyond single-risk assessments and adopt more holistic resilience strategies.

The 2025 results clearly demonstrate that the natural catastrophe risk landscape continues to evolve in both severity and in complexity. Even in years when certain perils generate fewer losses, the structural drivers of Nat Cat risk remain firmly upward. For If, this underscores the importance of disciplined underwriting, selective capacity deployment and consistent global evaluation frameworks.

For clients, the message is equally clear, proactive resilience, robust preparedness and well-planned investments in risk mitigation are essential. Financial protection alone is not enough. Long-term insurability depends on the combination of insurance coverage and strengthened resilience.

As extreme weather and climate-driven events become more frequent, severe and interconnected, the ability to understand, manage and adapt to natural hazard risks will define sustainable growth for both insurers and their customers. ●

### Meet our expert

**Sofia Hidén**
Head of Green Energy and Construction Underwriting

ENERGY

# Why is onshore growth slowing?

By **Vilma Torkko**, If

Onshore wind power has been one of the most successful renewable energy technologies of the past two decades. It is widely recognised as one of the fastest and most cost-effective ways to produce new low-carbon electricity. Wind energy, together with solar power, is among the cheapest and quickest solutions for expanding renewable energy capacity and meeting global climate targets.

Wind power already plays a major role in Europe's electricity system. In 2024, wind generated around 20% of all electricity consumed in Europe and 19% in the EU. The EU aims to increase wind's share to 34% by 2030 and more than 50% by 2050. According to the International Energy Agency (IEA), global wind capacity is still expected to nearly double by 2030, highlighting its central role in the energy transition despite current deployment challenges.

Despite this potential, the growth of onshore wind has slowed in many regions in recent years. In 2025, Europe installed around 19 GW of new wind capacity, bringing the total to approximately 304 GW. However, the EU needs to build roughly 30 GW annually to stay aligned with its 2030 energy and climate targets.

If's Senior Underwriter in Green Energy and Engineering, **Netta Keski-Keturi**, highlights that "The reasons behind the slowdown are complex and extend beyond technological considerations. Regulatory barriers, economic pressures, grid constraints, and local opposition all contribute to slower deployment, even as demand for renewable electricity continues to grow."

In 2025, Europe still invested around €45 billion in new wind energy projects to be built in the coming years, showing continued long-term confidence in the technology.

## Permitting and regulatory bottlenecks

One of the most significant obstacles to expanding onshore wind is the slow and complex permitting process. Across Europe, projects representing roughly 80 GW of potential wind capacity are stuck in approval stages, delaying construction and creating uncertainty for developers.

While the new EU rules aim to accelerate permitting, many countries still struggle to meet the target of issuing approvals within 24 months. In practice, developers often face substantially longer timelines, and delays weaken project economics by exposing projects to changing market conditions.

Some countries have shown that faster progress is possible. Germany approved nearly 15 GW of new onshore wind capacity in 2024 — a national record and roughly seven times more than five years earlier after reforms introduced binding permitting deadlines.

## Constraints and challenges

Another major challenge is the limited grid capacity. Even when new wind farms are built, connecting them to the electricity system can be slow and costly. Grid bottlenecks are increasingly restricting how much new renewable generation can be integrated.

More than 500 GW of potential wind capacity is currently waiting for grid connection assessments, demonstrating the scale of the challenge. In some regions, the main limiting factor is not wind resources or investment, but the power system's ability to absorb additional generation.

## Rising costs and market pressures

Macroeconomic conditions have also affected wind development. Inflation, higher interest rates and increased raw material prices have raised the cost of manufacturing and installing wind turbines. Supply chain constraints have further slowed project execution. Because wind projects require large upfront investments, higher financing costs can significantly impact profitability, leading some developers to delay investment decisions.

Additionally, when large volumes of wind generation occur simultaneously, electricity prices may temporarily fall due to oversupply. This price cannibalisation effect has become increasingly visible across Europe, making new investments more challenging.


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> “The reasons behind the slowdown are complex and extend beyond technological considerations.”
>
> — Netta Keski-Keturi, Senior Underwriter

## Price cannibalisation and regional concentration effects

The regional concentration of onshore wind farms amplifies the price cannibalisation effect. When many turbines located in the same area produce electricity during high wind periods, a large surge of generation pushes market prices down sharply. This reduces revenues for wind producers and increases price volatility.

Geographical clustering also creates challenges for transmission system operators (TSOs). Large volumes of wind power must be transported from production regions to major demand centres, increasing pressure on transmission infrastructure and raising the risk of bottlenecks.

## Slower growth in electricity demand

Wind expansion is also constrained by slower than expected growth in electricity demand. While wind generation has increased rapidly, electrification of key sectors, such as industry, transport and heating has progressed more slowly than anticipated.

Electricity currently accounts for around 23% of total energy use in the EU, but this share is expected to grow significantly as industries shift to fossil-free processes, electric mobility grows and data centres and hydrogen production expand. Many of these future demand drivers are, however, advancing more slowly due to permitting challenges, financing constraints or policy uncertainty.

This slower-than-expected demand growth is also a critical factor behind the slowdown in investments. Discussions with energy sector stakeholders consistently highlight the need for stronger electricity demand growth, with hydrogen in particular seen as a key enabler. At the same time, this reflects a classic “chicken-and-egg” challenge: investments in clean electricity supply depend on demand growth, while the emergence of new demand, such as hydrogen, requires abundant, affordable renewable power.

## Hydrogen, synthetic methane and the Nordic advantage

The slower expansion of onshore wind also has broader implications for emerging clean energy value chains, particularly hydrogen and synthetic fuels. Green hydrogen production depends on abundant and low-cost renewable electricity, and insufficient wind capacity can make investors more hesitant to commit to large-scale projects.

At the same time, the growing regional concentration of onshore wind farms increases the price cannibalisation effect and adds pressure on transmission networks. These dynamics are especially relevant in the Nordic region, which has a natural strategic advantage in synthetic methane production. A key underlying advantage is the availability of low-cost, green electricity, as Nordic countries consistently have among the lowest electricity prices in Europe. Several industrial facilities already capture $CO_2$, providing a ready feedstock that can be combined with green hydrogen. However, realising this potential requires strong growth in renewable electricity generation, especially from onshore wind, to support integrated power to gas systems and broader hydrogen ecosystem development.

## Public acceptance and land-use challenges

Local resistance also plays a role in slowing development. Concerns often relate to visual impacts, noise or effects on wildlife or landscapes. While studies show that bird collisions with turbines are significantly fewer than those involving buildings or other infrastructure, local resistance can lead to lengthy legal processes and stricter zoning rules.

Some countries, however, continue to expand wind rapidly. Lithuania, for example, added 759 MW of new wind capacity in 2025, increasing its total capacity by over 40% and covering roughly one-third of its electricity demand through wind power, reducing reliance on fossil fuel imports.

## Conclusion

Onshore wind remains a key pillar of the global energy transition, but its recent slowdown reflects a mix of regulatory, economic and system level constraints. Lengthy permitting, grid bottlenecks, rising costs, market volatility and local opposition all weigh on project development. At the same time, regional concentration of wind production heightens price volatility and increases pressure on transmission networks, further complicating investment decisions.

Wind energy also plays a central role in enabling green hydrogen and synthetic fuel production, especially in regions like the Nordics where $CO_2$ capture infrastructure already exists. Insufficient renewable capacity therefore affects not only electricity markets but also the development of future low-carbon industries.

Despite the current slowdown, the long-term potential of onshore wind remains substantial. Faster permitting, modernised grid infrastructure and stable policy frameworks will be essential for unlocking future growth. With the right measures, onshore wind can continue to expand, strengthen energy security and support the transition to a cleaner and more resilient energy system.

From an industry perspective, insurance also plays a key role in enabling the energy transition. If Insurance is actively involved in insuring renewable energy projects, including both new developments and operational onshore wind assets, supporting the sector throughout the project lifecycle. ●

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## Meet our expert

**Netta Keski-Keturi**
**Senior** Underwriter, Green Energy and Engineering


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PROPERTY

# AI data centres challenge

By **Kristian Orispää**, If

AI data centres demand significant amounts of power to deliver on the promises being made to consumers and businesses alike. This demand is colliding with aging grid infrastructure, raising questions about capacity, reliability, and indeed the true potential of electrification.

According to a September 2025 article by Hogan Lovells, "there are now approximately 11,000 data centres globally (approximately 50% of which are in the US). The number has increased by 500% since 2005. All signs are that this trend is set to continue."

As the new frontier of the digital age reshapes the way we work and live, a less visible but significant issue lurks in the infrastructure that is expected to carry the surging demand for power. In this article we dive into how utilities and power companies keep pace with this demand, when the infrastructure that was installed decades ago, is increasingly showing its age.

## Technical hurdles impacting electrification

Today, AI has become a key technology that can be utilised across various fields, including consumer applications and industrial automation. The growth of AI has resulted in the increased construction of large data centres. These facilities, which can cover extensive areas and contain high-powered processors, need a continuous and significant supply of


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# aging power grids

electricity. Compared to traditional data centres, AI-focused centres are designed to meet this high level of demand.

Over the coming decade, this demand for power is expected to double, especially in areas that are highly populated and undergoing significant digital transformation. New and/or expanded grid connections by hyperscale data centres are on the rise and frequently exceed the capacity of existing local and regional grids. Combined with other electrification trends, including the increased number of electric vehicles (EVs), and the decarbonisation of heating, for example, further impact this growing demand.

## Modern philosophy

Power grids in developed economies were constructed in the mid-20th century. The philosophy has been to deliver a one-way flow of electricity from large, centralised power stations to consumers and businesses. Now, these grids are expected to manage complex bi-directional flows, integrate intermittent renewable resources, and support new loads that far exceed the norms for which the infrastructure was originally designed.

Alongside the physical aging of wires, transformers, and switchgear, all of which can lead to increased risk of failure and blackouts or brownouts under high loads there are other concerns. Some of the main vulnerabilities include limited transmission capacity. Here, the existing transmission lines, substations, and transformers cannot carry the sustained high loads that AI-driven data centres require. Further adding to the challenge, upgrading, or expanding such assets is capital-intensive and often takes several years to complete.

As an example, Sweden's main grid operator, Svenska kraftnät states in the report Grid development plan 2024–2033; "Over the next decade, we plan to renew almost 50 of our current substations and to construct approximately 30 new substations." However, the complexities in developing the grid have grown substantially since the 1960s, as illustrated in the diagram 1 on the next page published in the Svenska kraftnät report.

COMPLEXITY IN THE DEVELOPMENT OF THE TRANSMISSION GRID

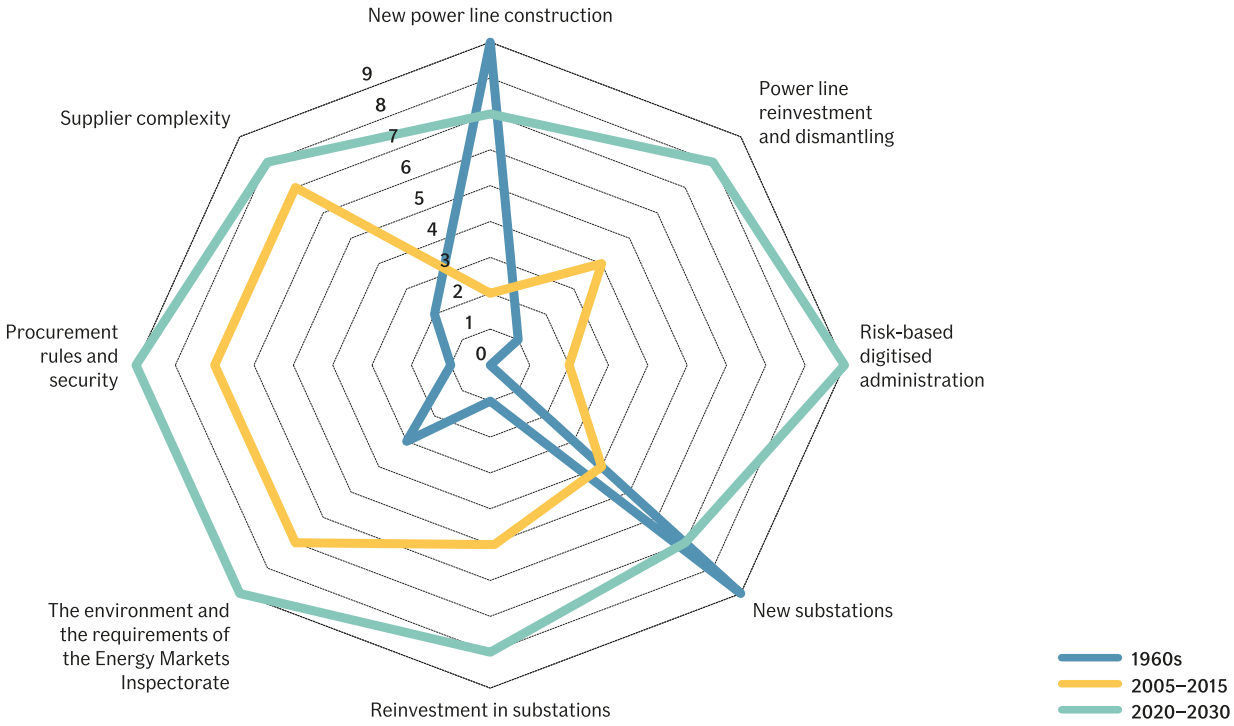


Diagram 1: Svenska Kraftnät

## Smart grid solutions

Implementing smart grids to support increased energy demand is not without challenges. Upgrading the electricity network to manage this added demand, operators can implement digital communication technology, sensors, and computer processing. These tools help to better manage the power supply and demand in real-time. Smart grids help to enable a two-way flow of both electricity and information between the utility and consumers, more efficiently when compared to traditional grids. Smart grids enhance existing power grids with features like automated fault recovery, real-time monitoring, integration of renewable energy, and improved consumer energy insights.

As Matti Sjögren, Nordic Liability Risk Management Specialist at If, highlighted in his 2019 article, "Smart power grids are taken into use, even while the hardware may be old. This leads to new, possibly unidentified risk exposures to societies and companies." He highlights, that from an insurance perspective, the "digitalisation of earning methods and the increase of immaterial values in new business models aren't less exposed to interruptions of the common infrastructures like communication or cloud services. "

This is especially concerning if the International Energy Agency (IEA) estimates materialise. According to the IEA report *Energy and AI*; "Data centres accounted for around 1.5% of the world's electricity consumption in 2024, or 415 terawatt-hours (TWh). The United States accounted for the largest share of global data centre electricity consumption in 2024 (45%), followed by China (25%) and Europe (15%)." The report further estimates that data centre electricity consumption is set to more than double to around 945 TWh by 2030.

## Power companies face multiple challenges

AI-driven growth is linked to broader efforts to electrify transportation, heating, and industry for decarbonisation, causing a significant increase in grid demand. This combined "convergent load" challenges grids to serve both large data centres while enabling power distribution from renewable power sources. Many older grid systems lack real-time flexibility or load management, raising the risk of brownouts, outages, or systemic failures if demand surpasses capacity.

As an example, a potential risk lies in utilising an old or outdated power grid, which struggles to manage fluctuating loads. This can lead to property loss, such as machinery breakdowns resulting from sudden and unexpected power outages.

Below are some other considerations and issues that are to be considered:

- **Speed is a challenge.** Power companies face pressure to process large interconnection requests rapidly, far faster than traditional infrastructure planning cycles. However, constructing new substations or transmission lines can be delayed by years due to opposition from stakeholders or regulatory complexities.
- **Delivering stable power reliably.** AI data centres demand significant amounts of power, e.g. hundreds of megawatts, while ensuring quality and reliability. However, brief outages or sudden load spikes can cause grid instability, especially when utilising renewable energy sources.
- **Renewable energy sources raise concerns.** As power companies incorporate wind and solar energy sources, the natural variability in delivery is more likely to result in inconsistent power production. For example, excess

power when demand is low or insufficient supply during peak demand. It is difficult to secure that megawatts are available where and when needed, without overloading transmission infrastructure.

- **Further concerns include cooling and cyber risks.** AI data centres generate significant amounts of heat, which means cooling and ventilation are key to prevent overheating. Furthermore, with added sensors and digital control systems, cybersecurity risks must be addressed as AI data centres are prime infrastructure targets for sabotage and malicious activity.

## Powering the road ahead

To address these multi-layered challenges, utilities and grid operators are considering a range of solutions. Modernising the existing grid is vital, upgrading transmission and distribution infrastructure, including advanced conductors, smart transformers, and grid-scale battery storage, for example. Power companies can also construct redundancy into critical portions of the grid, including looped distribution networks and backup power sources, to prevent single points of failure.

Data centres can also do their part in securing power supply to their operations, for example by shifting non-essential loads to off-peak periods, participating in demand response programmes, or deploying on-site generation and storage.

Other opportunities lie in the establishment of microgrids and decentralised power generation, e.g. for campus-style data centres, which can operate independently during grid stress or outages.

In Finland, according to Fingrid's most recent Main grid development plan (published 4.9.2025), investments into electricity transmission links continue to grow. The report highlights that, "Finland's main grid is currently being reinforced more than ever before, and at an accelerating pace: investments will reach EUR 1.7 billion in the period 2025–2028."

AI can also have a role in tackling the risk of blackouts and brownouts. This can be done, for example, by continuing to advance forecasting to better predict and manage both supply and demand at granular levels to further improve efficiency.

The rising power needs of AI data centres are straining outdated grids, creating major infrastructure challenges. The expansion and modernisation of power grids requires substantial upgrades to meet growing digital and electrification demands. However, the challenge goes beyond power companies and grid operators. Addressing these issues that stand in the way of an electrified future will require close cooperation among utilities, regulators, tech firms, and policymakers. ●

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RISK MANAGEMENT

# Building continuity in an unpredictable global landscape

By **Kristian Orispää**, If

Modern manufacturing increasingly relies on complex products and extended supply chains, often involving multiple levels of suppliers. Lean production methods, such as just-in-time inventory, can reduce costs in stable conditions but may leave businesses exposed if there is a significant disruption to their production processes, supply chains, availability of components or raw materials. When unexpected interruptions occur, limited inventory levels may prevent companies and their suppliers from fulfilling orders promptly, potentially causing substantial financial losses.

External dependencies can trigger chain reactions, where issues with one supplier reverberate throughout the market. This is particularly problematic when only a few suppliers provide critical components. Any shortage of essential materials or services can have far-reaching consequences for production and customer commitments.

## Risk landscapes

Preparedness is crucial in managing unforeseen events such as floods, fires, or pandemics. Business Continuity Planning (BCP) addresses these risks by ensuring companies have robust plans for emergency response, crisis management, and business recovery. A thorough understanding of risk exposure is vital, and regular business impact analyses help identify vulnerabilities, including reliance on critical suppliers and the availability of alternative sources.

- **Geopolitical instability and regional tensions** For example, especially in regions like the South China Sea, Eastern Europe, and the Red Sea, are now a top-tier risk. These tensions can trigger sudden border closures, export bans, or sanctions, severely disrupting supply chains and causing ripple effects across industries. Furthermore, trade wars and inflationary pressures compound the risk, making resource acquisition and pricing highly volatile.
- **Cyber threats, criminal use of AI tools** Cyberattacks are evolving beyond digital breaches. In 2025, adversaries are targeting physical infrastructure, such as undersea cables, satellites, and data centres with AI-enhanced tools. Additionally, deepfake scams, voice impersonation, and AI-generated phishing are now common, making detection and response more complex.

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- **Climate change litigation and adaptation failures.** Beyond extreme weather, climate change is driving a surge in litigation. Over 1,500[1] cases have been filed globally since the Paris Agreement, targeting companies for misleading advertising or insufficient emissions reductions. Businesses must now assess legacy infrastructure for new risks e.g. like flooding or snow loads, and prepare for legal accountability.
- **Lithium-ion battery hazards and energy transition risks**
  The push toward electrification and renewable energy introduces new hazards. Lithium-ion batteries pose fire and explosion risks, especially in cargo and property contexts. Additionally, transformer shortages and grid instability (e.g., brownouts) are emerging concerns as energy systems modernise.
- **Mental health and workforce instability**
  Employee well-being is increasingly linked to operational resilience. Poor mental health, burnout, and cultural fatigue can lead to absenteeism, reduced productivity, and reputational damage. Companies are urged to integrate mental health into their risk frameworks and duty-of-care policies.
- **Digital asset liabilities and ESG-risks**
  As ESG becomes mainstream, companies face liability risks tied to environmental claims, data ethics, and product recalls. Missteps in ESG reporting or digital asset management can lead to reputational harm and legal exposure.

Other concerns include e.g. systemic risks, which cascade across industries, that are now central to risk planning. Hidden interdependencies are also a concern, highlighting the fragility of supply chains especially in cases where a single-source dependency exists.

## Building resilience

One important strategic action that companies can take today includes stress-testing their continuity plans regularly. Many firms still lack impact analysis or crisis simulations. Companies are already aware of the importance of diversifying their supply chains and continue to focus on building multi-tier visibility to reduce dependency risks. Just as importantly, organisations need to understand their risks around mental health issues, integrating resilient solutions to support their workforce as part of their business continuity planning.

Importantly, companies are also investing in AI-powered cybersecurity, and just as importantly employee training to counter adaptive threats. They are also monitoring ESG and legal landscapes for emerging liability exposures.

1. Source: Columbia University Law School, on Sabin Center https://climate.law.columbia.edu/

It is important for businesses to assess their significance to suppliers and evaluate the capacity of alternatives to provide support during crises. If's Risk Engineers play an invaluable role in supporting BCP efforts globally, helping organisations prevent losses and manage risks effectively.

**Andreas Kräling**, Head of Property Risk Management in Sweden, highlights that "By interviewing site staff with central responsibilities concerning outage planning and contingency preparedness, companies can gain further detail on the risks and related preventive measures."

He continues, "There are several examples of operations having full control over how to restore production, recover lost property and machinery, shift production to available capacity, and fulfil contractual obligations. Significant business interruption still occurs more often than not because the full scope of disruption has never been tested."

**Common issues with BCP planning:**

- Alternative suppliers not vetted or validated any longer and only identified as a potential source.
- Alternative production sites and production lines lack accreditation or approval to put products they normally do not produce to markets they normally do not supply.
- Certain approval processes are very time-consuming and include on site audits of facility and test batches, which is not accounted for.
- Supply chain routes for alternative suppliers may be interfered by conflicts, embargos and tolls.
- Overestimating the market position when suppliers are down and the overall supply is less than the demand, creating a decline in supply flow.
- ESG related legal exposure connected to not complying to regulatory demands when making large changes to supply chain and product flow in a timely manner.
- Brand and reputational damage connected to ESG non-compliance, quality issues, capacity constrictions, and opacity regarding governance.

Full-scale crisis training sessions and scenario-based sessions that are conducted in a holistic manner are the best way to capture the input and risk mitigation from all stakeholders, as well as pressure test the full scale and scope of your business continuity planning. ●

**If's Risk Engineers are ready to support your organisation's business continuity planning worldwide, helping you to prevent losses and manage risks with expertise and confidence.**



## Meet our expert

**Andreas Kräling**
Head of Property Risk Management, Sweden

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# Fluorescent lighting poses significant fire risks

By **Laura Hyytiäinen**, If

Approximately one in three building fires are believed to originate from electrical issues, often caused by faulty or overloaded installations or connections. Lighting is a common factor, yet it's rarely inspected during routine property maintenance. Without considering fire safety during lighting upgrades, the risk of electrical fires can increase significantly.

According to our statistics, electricity causes roughly one third of company fires, often due to faulty or overloaded electrical devices, poor connections, or inadequate maintenance. Among the most hazardous are fluorescent tube fixtures with magnetic ballasts; these are typically older lamps or tubs, which can heat up to over 200 degrees Celsius when left on for longer time periods. Despite advances in lighting technology, these fixtures are still widely used in many Nordic companies and pose a serious fire threat that can cause extensive damage.

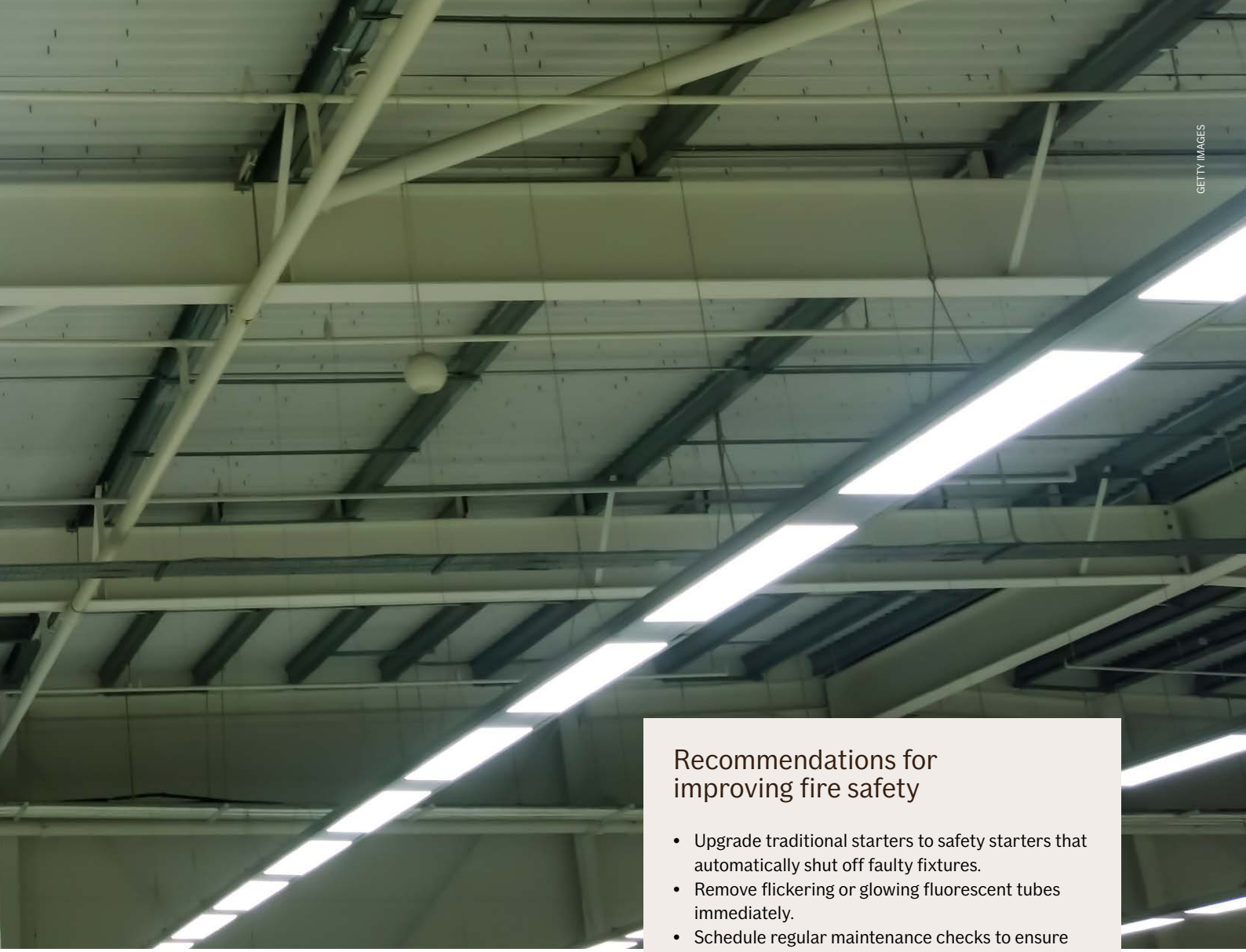
"Our fire experts have cautioned about the risks associated with fluorescent tube lamps for some time," says **Jussi Lehtonen**, Leader Risk Managers Finland, Commercial, and the Founder of If's Safety Academy. "These fires are not only dangerous but also entirely preventable with proactive measures."

Even though the production and importing of fluorescent tubes into the EU officially ended in 2023, many businesses continue to use these types of fixtures during the transition period. Lehtonen points out that some organisations may be delaying upgrades simply to use up existing stock, but this decision significantly increases fire risks.

"Timely replacement of outdated fluorescent luminaries with safer LED technology-based lighting solutions will reduce the risk of an electrical fire", says Lehtonen.

## A small investment can prevent a major risk

For older fluorescent tube fixtures, the risk of overheating grows as the tube nears the end of its lifecycle. At that point, the starter continuously attempts to ignite the flickering tube, which can cause certain components to overheat. Replacing standard starters with safety starters is a simple,



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yet effective solution. These safety starters automatically switch off the tube before overheating occurs, significantly reducing the risk of an electrical fire.

"While fires caused by lighting fixtures have decreased in recent years, it's crucial to continue raising awareness to prevent losses and minimise these risks," Lehtonen notes.

He highlights that one key cause of fires could be linked to less frequent maintenance checks, which allow faulty fixtures to go undetected. Simply relying on outdated fixtures without proper oversight further increases the risk.

## Modifications to LED lights can affect product liability

LED lamps are widely regarded as safer options due to their lower power loss and low voltage. However, as their use becomes more widespread, new electrical and fire safety risks have emerged. When installing LED lighting, it's important to factor in changes to the electrical system's overall load and power quality. To ensure safety, lighting upgrades should always be carried out by qualified professionals.

DIY modifications to LED lights may transfer liability to the person making the modification. If the original configuration of a traditional fluorescent tube fixture with a magnetic ballast to accommodate LED tubes is altered, the responsibility for product safety may shift from the manufacturer to the person carrying out the modification. ●

## Recommendations for improving fire safety

- Upgrade traditional starters to safety starters that automatically shut off faulty fixtures.
- Remove flickering or glowing fluorescent tubes immediately.
- Schedule regular maintenance checks to ensure lighting systems are safe and functional.
- Work with professionals to ensure your lighting systems are both safe and compliant.
- Replace fluorescent tubes with LED alternatives
- Educate staff and subcontractors about potential risks and include lighting safety as part of routine electrical maintenance procedures.

## Sources

- LED lighting fire safety research. Kalle Ruuth, a project researcher at Tampere University of Technology, studied the fire safety of LED lighting and the network effects of different lighting solutions. You can find the research here.
- The RoHS Directive (Restriction of Hazardous Substances) limits the use of hazardous substances, such as mercury, in electrical devices. The end of exemptions meant that fluorescent tubes can no longer be manufactured or imported into the EU market.

## Meet our expert

**Jussi Lehtonen**
Leader Risk Managers Finland, Commercial

# Oil-filled transfor

By **Kristian Orispää**, If

Corrosive sulphur compounds present in transformer oil can, under certain conditions, cause copper corrosion, which may ultimately lead to severe transformer damage. This issue has gained increasing attention in many industries due to recent events where corrosive sulphur compounds have been identified as the root cause of transformer failures. Although sulphur is naturally present in many insulating oils, certain reactive forms can become problematic when they interact with copper conductors and insulation materials.

**Pekka Sarpila**, Nordic Head of Property Risk Management at If, explains that transformer maintenance is essential. “Currently, repairing a heavily damaged transformer often costs more than buying a brand-new one. Getting a replacement is, however, challenging, as the lead time for a new transformer can be up to three years. Therefore, condition monitoring and proper maintenance of the transformers and spare units for critical equipment is of key importance to avoid business interruptions and disturbances. With proper maintenance, this approach is sustainable and helps to prevent losses.”

> The costs of repairing a heavily damaged transformer could exceed the cost of replacing the entire unit. A damaged transformer can also be beyond repair.

# mers at risk

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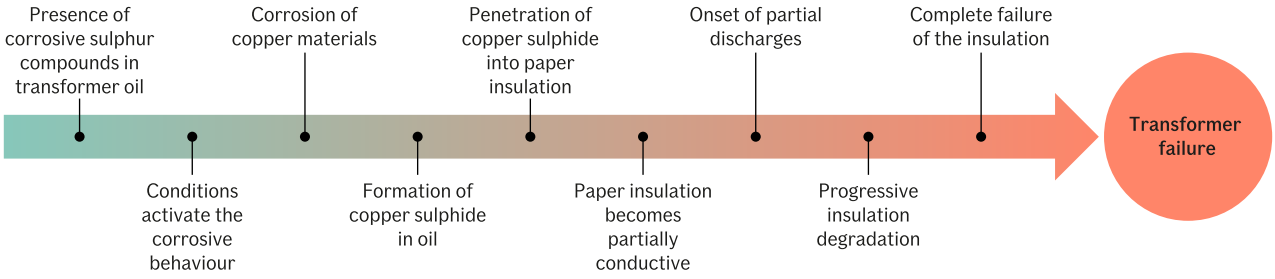
FROM INITIAL CONDITION TO TRANSFORMER FAILURE




## Understanding the risk

Transformer failure caused by copper corrosion is a multi-stage process. By breaking the process into smaller parts, it not only becomes easier to understand, but also helps in defining the necessary actions.

According to **Sakari Vuorinen**, Risk Engineer, at If Insurance, "The corrosive sulphur compounds in oil react with the transformer copper components, forming copper sulphide, which penetrates the oil transformer's paper insulation. This way the paper insulation becomes electrically conductive, which will eventually lead to transformer failure. It's important to understand that the corrosion itself is not the main danger. The danger comes from where the copper sulphide contamination ends up."

## Preventing transformer failure

First, it is critical to use proper oil in oil-filled transformers, which is fit for purpose and free from corrosive additives. Even if there are no

The formation of copper sulphide is a key indicator of corrosion and can lead to transformer failure. Mitigation strategies will help prevent losses and ensure proper maintenance of the unit.

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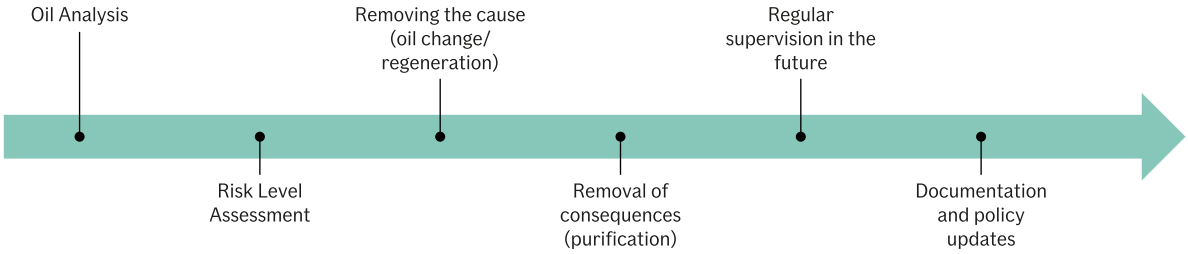
MANAGING THE RISKS




corrosive compounds present, it is important to perform adequate inspection, measures, and maintenance to ensure the operational reliability of the transformer. However, without knowledge or understanding of the corrosion risk, some of these preventive actions might not be performed. Hence, education of the relevant personnel is one of the key aspects in risk prevention.

Sakari Vuorinen highlights, "Regular personnel training combined with systematic monitoring helps protect your transformer. Whenever there is uncertainty regarding the presence of corrosive sulphur compounds in the insulating oil, the oil analysis should be performed according to the latest international standards (e.g. IEC 62535 – Detection of Potentially Corrosive Sulphur in Insulating Oil or ASTM D1275 Method B – Standard Test Method for Corrosive Sulphur in Electrical Insulating Oils)."

Dissolved Gas Analysis (DGA) is a last line of defence regarding corrosive sulphur. A variety of gas components can be formed from the oil, which indicate the severity of the problem. Signature indicator for partial discharge in transformer is a high hydrogen ($H_2$) gas content, whereas for electrical arcing in transformer it is high acetylene ($C_2H_2$) and hydrogen ($H_2$) gas contents. The aim is to detect the symptoms of the copper corrosion before transformer becomes irreparably damaged.

Many industrial plants perform DGA on oil-filled transformers annually, which is the recommended "standard testing interval". However, the optimal testing frequency should be determined by factors such as the transformer's criticality, age, and emerging gas trends. Industry best practices further emphasise increasing the frequency of DGA once gas concentrations begin to rise or when a transformer is identified as high risk. Additionally, in some cases, it might be justified to perform furan analysis to reveal localised insulation breakdown that doesn't produce enough gas to show up in DGA analysis.

## Preventing transformer losses

Preventing losses means being ahead of any issues that may lead to the failure of your transformer. In cases where the risk of having corrosive sulphur present in the transformer emerges, be aware of the following actions:

- Oil replacement: Replacing the contaminated oil with fresh, non-corrosive oil.
- Oil reclamation: Heating, degassing, adsorption, filtration, re-inhibition
- Metal Passivators: Additives can be added to the oil to passivate the copper surface and prevent corrosion, but they do not remove the corrosive sulphur compounds.
- Monitoring and process control: DGA annually, Furan analysis and corrosive sulphur analysis case by case. Temperature control and load optimisation based on the results of the analyses.

Please note that this article provides general insights into the risks, issues, and actions relating to preventing losses caused by copper sulphur in oil transformers. For a deep dive into the proper maintenance of transformers, including when to conduct technical analyses, annual surveys and checks, including an optimal maintenance schedule to prevent losses and manage risks relating to your transformer, please contact If Insurance. ●

## Meet our experts

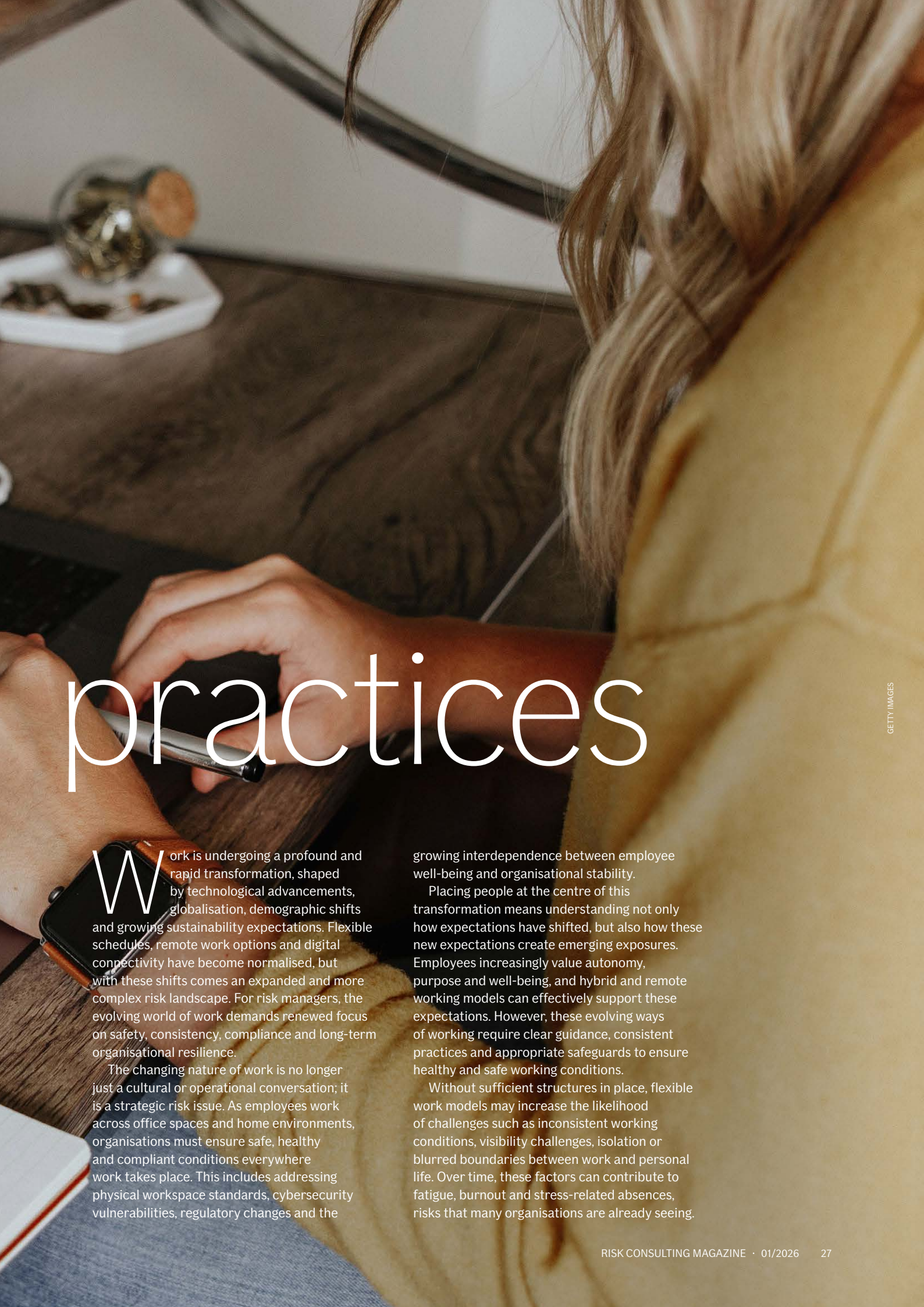
**Sakari Vuorinen**
Risk Engineer

**Pekka Sarpila**
Head of Property
Risk Management

WELLBEING

# Shifting work

By **Vilma Torkko**, If



# practices

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Work is undergoing a profound and rapid transformation, shaped by technological advancements, globalisation, demographic shifts and growing sustainability expectations. Flexible schedules, remote work options and digital connectivity have become normalised, but with these shifts comes an expanded and more complex risk landscape. For risk managers, the evolving world of work demands renewed focus on safety, consistency, compliance and long-term organisational resilience.

The changing nature of work is no longer just a cultural or operational conversation; it is a strategic risk issue. As employees work across office spaces and home environments, organisations must ensure safe, healthy and compliant conditions everywhere work takes place. This includes addressing physical workspace standards, cybersecurity vulnerabilities, regulatory changes and the growing interdependence between employee well-being and organisational stability.

Placing people at the centre of this transformation means understanding not only how expectations have shifted, but also how these new expectations create emerging exposures. Employees increasingly value autonomy, purpose and well-being, and hybrid and remote working models can effectively support these expectations. However, these evolving ways of working require clear guidance, consistent practices and appropriate safeguards to ensure healthy and safe working conditions.

Without sufficient structures in place, flexible work models may increase the likelihood of challenges such as inconsistent working conditions, visibility challenges, isolation or blurred boundaries between work and personal life. Over time, these factors can contribute to fatigue, burnout and stress-related absences, risks that many organisations are already seeing.

> “As ways of working continue to evolve, we provide support that takes each employee’s work circumstances into account, helping them understand their coverage and work safely within it.”
>
> — Jesper Frovst, Head of Employee Benefits Underwriting in Denmark

## Risk Management perspective

From a risk-management perspective, ensuring employee well-being requires a structured, preventive approach. Ergonomics become essential, alongside the management of ventilation and noise pollution, proper seating, desk setups, lighting, screen positioning and environmental safety. These can help to proactively address potential musculoskeletal issues and long-term health problems. Whether an employee works from a corporate office or a kitchen table, organisations carry the responsibility for setting standards, providing guidance and supporting compliant workspace arrangements.

Clear guidelines also play a central role in reducing uncertainty and preventing operational risks. As flexibility expands, employees need defined rules of engagement, as in what is permitted in remote settings, how data must be handled securely, which tools and devices are approved, and what practices are unacceptable due to privacy, safety or compliance concerns. These guardrails help reinforce alignment with corporate strategy and reduce the likelihood of accidental policy breaches or exposure to cyber threats.

## Hybrid work reshapes insurance

Hybrid work also requires a deeper look at insurance and liability implications. Traditional benefit plans and workers’ compensation frameworks were designed around office-based work. Now, organisations must analyse how flexible work arrangements affect coverage, from healthcare benefits and ergonomics-related claims to global mobility policies and travel insurance. Distributed teams introduce new uncertainties. What counts as a workplace accident in a home office? How should international remote work be handled from a regulatory standpoint? These questions highlight the need for modernised policies and strong collaboration between HR, risk management and legal. “As ways of working continue to evolve, we provide support that takes each employee’s work circumstances into account, helping them understand their coverage and work safely within it,” says **Jesper Frovst**, Head of Employee Benefits Underwriting in Denmark.

When it comes to hybrid work, careful planning and strategic management are the keys to success. Working remotely, for example, at home, at a cottage, in a hotel or at a customer site should be done with management approval. Changing work environments involve challenges that both the employer and occupational health professionals must navigate to support the employee. It is worth mentioning that the employer’s responsibility for the health and safety of the employee applies to all forms of work.

Providing support mechanisms becomes essential in helping employees manage new kinds of work-related challenges. Hotlines for ergonomic support, mental-health resources, scheduled follow-ups and targeted training programs can help employees recognise risks early and adopt healthier work practices. Preventive action reduces both human and financial costs by identifying vulnerabilities before they escalate.

## Safeguarding employee well-being

Leadership plays a critical role in this evolving landscape. Traditional command-and-control styles are shifting toward trust-based, transparent leadership that supports psychological safety and consistent communication across distributed teams. Leaders must be equipped to recognise early signs of strain, ensure documentation and escalation processes are followed, and intentionally build culture in environments where employees may feel disconnected or unseen. Productivity can no longer be measured solely by time spent. Instead, leaders must balance outcomes with responsible workload management and safe working conditions.

Futureproofing the workforce requires investing in both technology and human capability. As AI and automation reshape industries, skills such as digital literacy, resilience, adaptability and safe technology use become critical across all roles. Organisations increasingly rely on blended workforces – permanent staff, freelancers, contractors and platform workers, each with distinct risk profiles. Ensuring consistent safety standards, compliance


UNSPLASH

expectations and data access policies across all worker groups is vital to prevent fragmented governance and increased exposure.

## Looking ahead

The next decade will bring even greater flexibility, more advanced digitalisation and a stronger focus on sustainable work models. Industries such as logistics, manufacturing, financial services and knowledge-intensive roles will see particular disruption as automation and hybrid arrangements expand. Organisations that proactively invest in preventive health measures, strengthen cyber and physical safety protocols, modernise insurance and benefits, and embed risk management into everyday operations will be best positioned to thrive.

Ultimately, the shift in work practices represents more than a logistical change. It is redefining how organisations support their people and safeguard their future. By embracing flexibility while maintaining strong governance, businesses can navigate the complexity of modern work with confidence. This requires fostering inclusion, strengthening cross-functional collaboration and investing in both technology and human resilience. A risk-aware, people-centric approach ensures that the workforce remains healthy, capable and prepared for a world of constant change. ●

## Want to learn more?

If Insurance offers a wide range of resources designed to support your employees. Whether you are seeking guidance on ergonomics, remote work compliance, digital security or emerging risks, If's Learning Hub provides insights, support and opportunities for continuous development. Contact If Insurance to learn more.

### Meet our expert

**Jesper Frovst**
Head of Employee Benefits Underwriting, Denmark

# New EU Product Liability Directive brings additional obligations for companies

By **Laura Hyytiäinen**, If

The EU's new Product Liability Directive will transform the division of liability in the digital market: manufacturers and service providers will be liable not only for traditional products, but also for damage caused by software and AI systems. This change requires corporations to sharpen their focus on risk management, documentation, and preparedness for increasingly complex liability issues.

All EU member states are required to transpose the new EU Product Liability Directive (PLD) into their national legislation by the end of the implementation period. The directive substantially broadens the scope of product liability and updates the regulatory framework to meet the requirements of today's technology-driven markets.

With the new directive, liability for damages will be extended to digital products and services, including software, artificial intelligence systems, algorithms and machine learning models that control the product's operations.

The directive aims to ensure effective legal protection for consumers in the digital environment and to increase the responsibility of companies for the safety of their products and services. It also clarifies responsibility chains, requiring companies to document processes more thoroughly and prioritise responsible practices.

## A significant shift that benefits injured parties

Historically, product liability has served to safeguard consumers and enable compensation when a defective product causes bodily injury or property damage. Whereas under the old rule, claimants were required to prove both defectiveness and causation, the new directive introduces rebuttable presumptions that, in certain defined circumstances, allow courts to presume defectiveness and causation. This represents a fundamental change in favour of the injured party.

## Responsibility throughout the product life cycle

Product liability now also extends to remanufactured, repaired, and upgraded products and their parts. Manufacturers and operators are responsible for the safety of a product throughout its life cycle, including when the product is reintroduced, updated with software, or is integrated into a circular economy business.

If injuries may emerge long after a product is sold, manufacturers can now be held liable for up to 25 years from the date it entered the market. “This is a significant extension from the 10 year limit in place today,” If’s Liability Risk Management Specialist, **Håkan Larsson** reminds.

The directive also highlights that manufacturers or service providers can be held responsible for any harm resulting from the digital services or software they offer. For instance, if system failures or data loss occur, liability may fall on the manufacturer or service provider. Similarly, if a software update leads to product problems or data breaches, the manufacturer or service provider could be required to compensate for damages.

## Stricter compliance and risk control obligations for businesses

Companies are expected to take care of more comprehensive documentation, quality control, and demonstrate that risks have been taken into account at all stages of the product’s life cycle. Product liability insurance that covers expanded liability is essential to protect businesses from claims and legal fees.

"With the introduced legislative changes, companies that offer digital services or artificial intelligence products will have to update their risk management and insurance coverage," Larsson comments and continues, "Furthermore, should a claim arise, the product liability insurance will not only protect against potential liability related damages, but our specialists will also assist clients in negotiations with the claimants." ●

### Sources

- The New EU Product Liability Directive: Key Changes and Implications for the Life Sciences Sector
- EU Product Liability Directive: 2026 Changes Explained

### Meet our expert

**Håkan Larsson**
Liability Risk Management Specialist


# Understanding offshore wind projects

To support developers, manufacturers, investors and partners across the renewable energy value chain, If Insurance has compiled a white paper offering data-driven insights into the most pressing risk factors facing offshore renewable projects today.

Take a deep dive into the latest topics with Tom Guttormsen, Nordic CAR/EAR and Energy Risk Engineer at If Insurance, together with expert insights from Thomas Langford, Director Offshore Energy at NGI, and David Maloney, Director Subsea Cables, Renewables Certification at DNV. Download our white paper to learn how enhanced risk management, better data transfer, and stronger cross-industry collaboration can enable safer and more resilient offshore renewable projects. ●

**To access the white paper scan the QR code.**

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