





## Anticipating Tomorrow - Industry Perspectives on Emerging Risks

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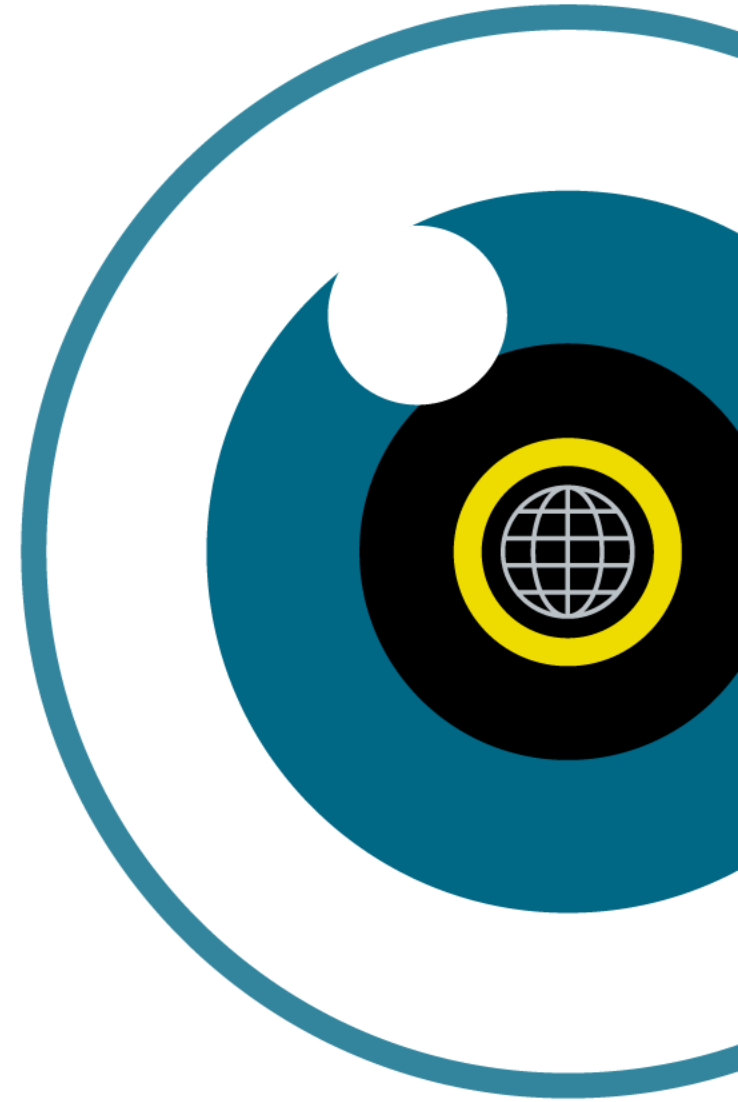
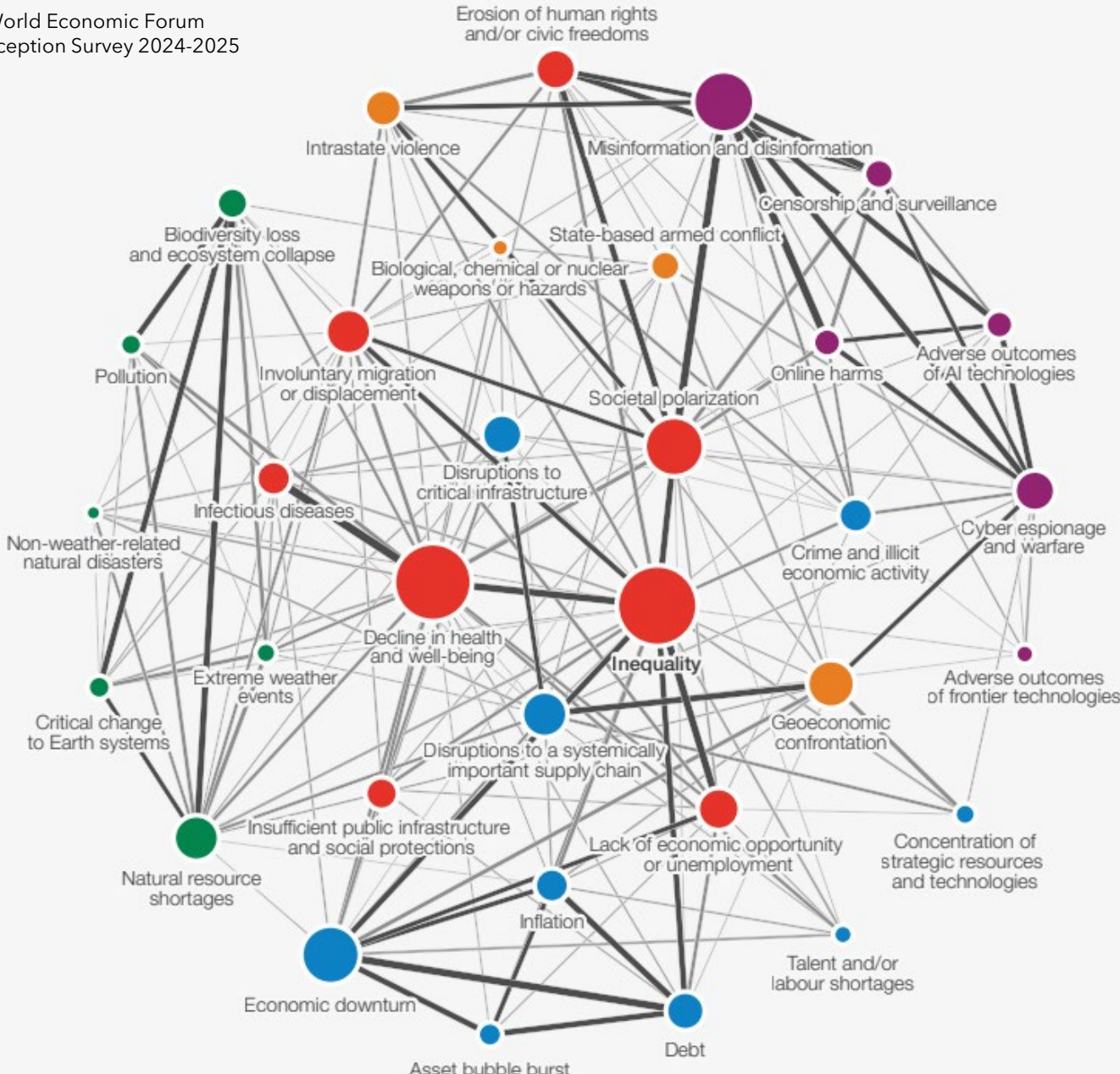




Image source: Created with AI (Microsoft Copilot, 2025)

Image source: World Economic Forum  
Global Risks Perception Survey 2024-2025



# Emerging Risks: Essential elements at a glance

- **Definition**

**Emerging risks are new or changing risks with high uncertainty in**

Timing

Likelihood

Impact

- **Scope**

**The impact of emerging risks can be more extensive than meets the eye**

Insurance risks

Investment risks

Operations

- **Objectives**

**Should be defined transparently**

**Awareness:** identify risks at an early stage

**Preparedness:** assess and manage effectively

**Focus:** accumulation potential (downside) or business opportunities (upside)

- **Stakeholders**

**A multifaceted range of interested parties**

Senior management

Regulators

Auditors

Public, Clients, Investors etc.

# No one-size-fits-all: Companies combine methods to fit their needs

- **Identification**



Engage internal/external experts  
Leverage industry networks and publications  
Recognize and avoid **biases**

- **Prioritization**



Focus: Identify a manageable set of strategically important risks  
Criteria: Business impact, preparedness, alignment with strategic priorities  
Leadership engagement and commitment

- **Assessment**



Structured discussions (e.g., interviews, surveys, workshops)  
Evaluate relevance, time horizon, speed and current awareness resp. mitigation strategies

- **Measures**

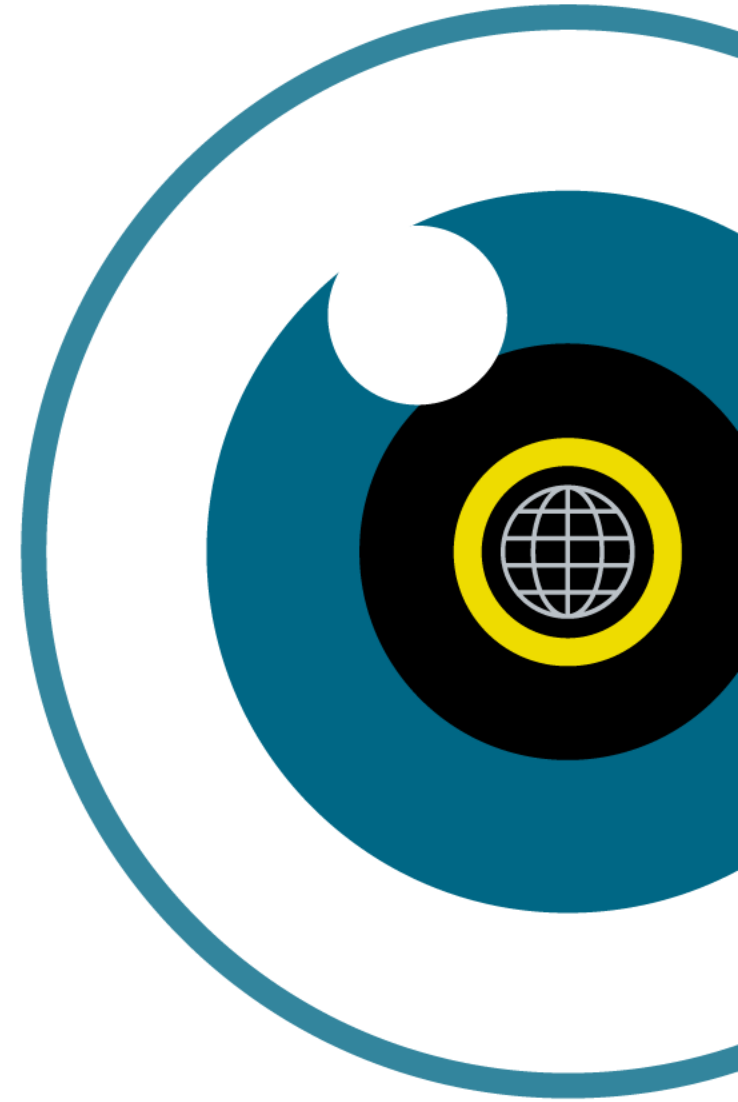


Deep-dive analysis of prioritized risks  
Derive actionable insights to inform mitigation planning  
Ensure clear communication and ongoing monitoring



## Insurance Industry Perspectives

The Emerging Risk Initiative of the CRO Forum





# Identification: Risk Radar of the Emerging Risk Initiative of the CRO-Forum



- Experts from major European (re)insurers discuss emerging threats and annually publish a risk radar based on a survey of member institutions.
- 2025 radar identifies **cyber, infrastructure blackouts, geopolitical risks** as well as **trade conflicts** and **climate change** as highest-impact risks for the insurance industry
- **AI** risks with high momentum but significant impacts only expected in the medium term
- **Breaking Point: Critical Infrastructures Disrupted:** A recent CRO-F position paper on vulnerabilities of critical infrastructures to disruptions, incl. cyber and geopolitical tensions.

Source: Emerging Risks Initiative - Major Trends and Emerging Risk Radar 2025, CRO Forum, August 2025. Available at: [www.thecroforum.org](http://www.thecroforum.org)

# Emerging Risk Management Practices: CRO Forum Survey Highlights (1/2)

## Definition

Most firms have their **own definition** of ER

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About **half** distinguish „trends“ vs. „risks“

## Risks vs. Opportunities

~2/3 include **opportunities**

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However, most firms **struggle** to fully implement opportunity aspects

## Strategy link

ER management often closely **linked** to company/risk **strategy**

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Updates go to senior management.

## Maturity level

Most rate own process maturity **medium to high - none as perfect**

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There are no standard maturity benchmarks

## Governance

Led by CRO/risk management, often cross-functional

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~50% have a **dedicated committee**

Source: Navigating Uncertainty - A Practitioner's Toolkit to Managing Emerging Risks, CRO Forum, December 2024. Available at: [www.thecroforum.org](http://www.thecroforum.org)



# Emerging Risk Management Practices: CRO Forum Survey Highlights (2/2)

## Key Risk Indicators

Only ~1/3 monitor KRIs for **selected** emerging risks

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Most firms use KRIs **only** once risks become more concrete

## Assessment Structure

~3/4 assess emerging risks at Group level, ~2/5 also involve business units

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Only minority include external experts for risk evaluation

## Reporting practices

Internal: **detailed** (bi-) annual reports using **visual tools** like radars or heat maps.

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External: almost exclusively through annual report (if any)

## Tool usage

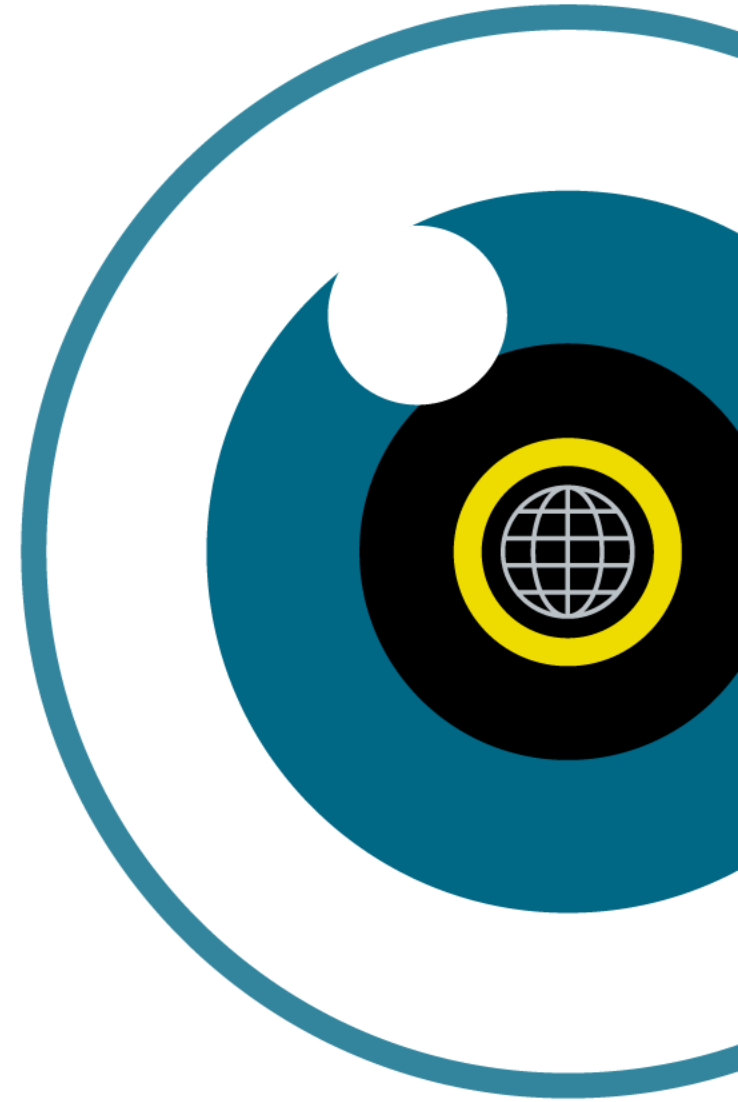
Only a **negligible** number of firms use automated tools or **AI** for emerging risk identification and monitoring

Source: Navigating Uncertainty - A Practitioner's Toolkit to Managing Emerging Risks, CRO Forum, December 2024. Available at: [www.thecroforum.org](http://www.thecroforum.org)



## Exemplary Approach to Assessing Emerging Risks

Scenario analysis for critical infrastructure failures



# Critical infrastructures are organizations, networks and facilities vital for the functioning of society and the economy

- **Energy (electricity, oil/gas)**

generation, supply, storage, operation, maintenance & development

- **Transport**

air, rail, road transport services / undertakings / authorities; operation, management & maintenance of networks

- **Banking**

taking deposits and lending

- **Financial market**

operation of trading venues and clearing systems

- **Health**

provision of healthcare services, laboratory analyses; research, development and manufacturing of medicinal and pharmaceutical products

- **Water (drinking water, wastewater)**

supply and distribution of drinking water; collection, treatment and disposal of wastewater

- **Digital infrastructure**

Operation and provision of internet exchange point service; cloud computing serv. electronic communications services and networks

- **Public administration**

services provided by public administration

- **Space**

operation of ground-based infrastructure supporting the provision of space-based services

- **Food**

large-scale industrial food production and processing; food supply chain services, incl. storage and logistics; food wholesale distribution

Sector categorization and definitions according to the EU 'Directive on the Resilience of Critical Entities', in force since 2023

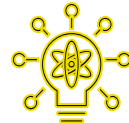
# Vulnerabilities of critical infrastructures: The interconnected landscape and associated threats

- **Natural disaster**



Earthquakes, Floods  
Climate change  
Solar storms

- **Operational and technological failures**



Human error  
Logistic failures  
Software/ hardware malfunctions

- **Man-made threats**

Cyber-attacks  
War  
Terrorism  
Vandalism

- **Aging infrastructures**

Deterioration and insufficient maintenance  
Outdated technology  
Underinvestment



# Deep dive analysis of power blackout: Lloyd's Blackout Scenario

**Lloyd's & University of Cambridge Centre for Risk Studies (2015):**  
*Business Blackout - The insurance implications of a cyber attack on the US power grid.* Available at: [www.lloyds.com/business-blackout](http://www.lloyds.com/business-blackout)

## Scenario

- sophisticated cyber-attack targeting the power grid in the **NE region of the US**
- resulting in widespread physical damage to generators
- attackers capable of reducing generating capacity by 20%

## Footprint

- cascading failure, resulting in a power outage across 15 states
- major metropolitan areas severely impacted incl. New York City & Washington, D.C.
- **93 million people are affected** by the outage

## Restoration

- Power restoration timeline:
  - 0% after 5 days
  - 50% after 8 days
  - 90% after 28 days
- Some areas remain **without electricity for up to 4 weeks**

## Impacts

- Economic losses of up to **US\$ 1tn**
- Prolonged blackouts strain public health and lead to increased crime and civil unrest
- Potential insurance claims include Property damage, **Business interruption, Contingent business interruption**, Cyber insurance
- Insurance claims ranging from **US\$ 20bn to US\$ 70bn**

# Example scheme for a structured company risk exposure analysis

Critical Infrastructure	P&C			L&H		Investments	Operations
	Property	Casualty	Cyber	Life	Health		
Electricity	E.g.: <b>Lloyd’s Blackout Scenario</b> testing using own portfolio data and assumptions, product terms and conditions, exclusions?					E.g.: Inventory of largest <b>direct infrastructure investments</b> and their diversification across geographies;  <b>Indirect</b> effects from market turmoils..	E.g.: Out of scope; c.f. Emergency Management and Recovery Plans
Oil/Gas	E.g.: Development of own <b>realistic disaster scenarios</b> and assessment of loss potentials with experts from business, risk, underwriting, claims, etc.			E.g.: <b>Qualitative assessment</b> and rough estimation of losses , based only on <b>simplified</b> and conservative assumptions.			
Transport							
Financial market							
...	E.g. deprioritize due to no noteworthy exposures						



# Navigating Emerging Risks: Awareness, Resilience & Human Judgment

- **Thesis: Black Swans can't be prevented - but resilience starts with awareness**

Even the most advanced Emerging Risk Management won't prevent a Black Swan event. The real value lies in creating awareness, strengthening preparedness, and maintaining a strategic focus on resilience. Trying to eliminate surprises indicates a misunderstanding of the nature of emerging risks.

- **Thesis: AI connects the dots - but risk ownership remains with humans**

AI can uncover the complex interconnectivity of emerging risks and support their identification and assessment. However, determining which risks matter most for your organization is a strategic responsibility - and that cannot be delegated.

THANK YOU

