



Swiss Re SONAR
New emerging risk insights

May 2019



What shapes the insurance industry?



Past experience and, importantly, new, changing and not-yet envisioned risks.



We created this SONAR report to inform and inspire conversations about emerging risks, so we can continue to build resilience together, in these uncertain times.


Overview



Emerging risk themes by potential impact and timeframe



0–3 years


  Teaching an old dog new tricks – digital tech meets legacy hardware



  Don't ask, don't tell – genetic testing and adverse selection


 Getting the balance right – technology regulation affecting the insurance industry


  Vaccination – a shot worth more than politics and profitability

  Beggar thy neighbour? – Global trade reordered



 Resilience at stake – forests' vital functions under threat


  Wiggle room – Artificial Intelligence and healthcare


 Pervasive and toxic – chemicals in our bodies and environment



 Conflicting interests – the widening urban-rural divide



> 3 years


  Off the leash – 5G mobile networks


 Limits to tinkering – the fiscal and monetary policy balance at risk

 It's existential – climate change and life & health **(Special feature)**






  Risky bets? Insurance demand in an age of shifting markets

  Retirement skills gap – accidents waiting to happen

 Concussion injuries in sport – head on to more widespread claims

 A celebrity body – the hazards of aesthetic surgery tourism

Most affected business areas

 for **Property**  for **Life & Health**  for **Operations**
 for **Casualty**  for **Financial markets**

Potential impact

 High  Medium  Low






Introduction

We define emerging risks as newly developing or changing risks which are difficult to quantify. The loss potential of these risks is currently difficult to estimate, but they may have a major business impact on the insurance industry. Against the backdrop of macro trends identified by Swiss Re, which are synthesized in overarching perspectives (see macro trends environments and overarching topics, page 7), this year's SONAR report features 15 new emerging risk themes and five emerging trend spotlights. It also includes a special feature on the implication of climate change on Life&Health insurance.

To assess and underwrite risks, the insurance industry relies on experience (ie, historical data for identified and insurable risks). However, historical data alone cannot build understanding of the future risk landscape, which is forever changing and presents new and previously unforeseen risks. Here, the insurance industry needs to demonstrate foresight and make use of sound future intelligence. Knowledge sharing through different forms of risk dialogue with all stakeholders can help insurers manage emerging risks more effectively, for industry sustainability and to improve societal resilience. Swiss Re's SONAR report, which has been published annually since 2013, provides a forward-looking perspective, to further promote and engage with such risk dialogue.

Swiss Re identifies emerging risks, first and foremost, through its proprietary SONAR tool, an internal crowdsourcing platform that collects input and feedback from underwriters, client managers, risk experts and others across Swiss Re. The emerging risk themes outlined in this report are based on early signals collected throughout the year. They neither reflect the entire emerging risk landscape of the insurance industry nor that of Swiss Re. They have been categorised according to their estimated impact and potential timeframe to materialise, and with respect to the line of business (see figure page 2) where we expect the biggest exposure will rest.

Per lines of business, the top emerging risk themes identified in this year's edition are:

-  for **Property:** Retirement skills gap – accidents waiting to happen
-  for **Casualty:** Teaching an old dog new tricks – digital tech meets legacy hardware
-  for **Life & Health:** Don't ask, don't tell – genetic testing and adverse selection
-  for **Financial Markets:** Limits to tinkering – the fiscal and monetary policy balance at risk
-  for **Operations:** Getting the balance right – technology regulation affecting the insurance industry

Some of the emerging risk themes and trends presented in this and previous SONAR reports may never materialise as exposures with loss-making potential. Others likely will. The earlier the re/insurance industry starts adapting to new risks, the better prepared it will be to successfully protect its bottom line, develop new products and write profitable business.

In an appendix, emerging risks with highest impact are listed from past reports dating back to 2015, with additional information about cross-cutting themes (see Appendix A: Key emerging risks from SONAR reports 2015–2019).

Technological and natural environment

The world is undergoing a shift in terms of who owns data, especially in regards to individuals (see page 27 “The surveillance economy”). As social media and other companies which have “control” over data begin shifting their approach – either pre-actively or in response to regulatory pressure – data may increasingly come back into the hands of the individual. Data has been and will continue to be a key differentiator in business, including for re/insurers (see page 41 “Getting the balance right”).

Technologies like Big Data and cloud computing can greatly increase the efficiency of capturing, storing and computing data. The Fourth Industrial Revolution is progressing full steam ahead including, among others, process automation, Internet of Things (IoT) devices and digital analytics capable of rapid analysis of massive amounts of un-/structured data (regarding speed of data transmission through 5G also see page 29 “Off the leash”). The combination of more data and better analytics can lead to better insurability of previously difficult-to-price products, and also to new capabilities in fraud detection. All this, however, raises privacy issues and trust concerns, and thus regulatory involvement. For insurers, specifically, these developments also raise the spectre of adverse selection.

The rise of Artificial Intelligence (AI) will have a major impact on knowledge and human capital-intensive businesses (for the realm of healthcare see page 31 “Wiggle room”), transforming existing employees into an “augmented” workforce. This could lead to an increase in unemployment, initially among lesser-skilled professions, and trigger social unrest.

The frequency and severity of risks resulting from cyber-attacks are expected to grow significantly over the next years. Recent examples have revealed how unprepared companies and government agencies are for such attacks. The need for cyber resilience has become a main focus of attention among corporate clients and insurance companies, triggering insurance demand. Cyber risk presents one of the largest opportunities for the re/insurance industry, while simultaneously also posing one of the biggest challenges. Keeping up with the changes in the cyber and technology space, and developing solutions to cover the resulting and ever-evolving risks is no mean feat.



Emerging trend
spotlight
**Shifting litigation
regimes**

Litigation funding and class actions, especially prevalent in the US, are becoming increasingly popular in other parts of the world.

Litigation funding is the upfront payment by a third party of fees associated with a litigation case – such as the plaintiff’s own legal costs, or the Adverse Cost Order in case the plaintiff loses – in return for a slice of the compensation received as a result of the lawsuit filed. The ongoing low interest environment makes litigation funding more lucrative to investors and thus drives propensity to sue. In turn, this may lead to more successful – and expensive – insurance claims and ballooning defence costs for the insurer. Well-known in the US, recently the practice has become more prevalent in the APAC region, South Africa and the UK. A landmark decision by the UK court of appeal concerning Mastercard and its fees, greatly lowered the threshold for class actions to proceed. The court also explicitly welcomes third-party funding for litigation. While a further appeal is likely, it is an on-going case example that illustrates that companies in the UK will be needing to spend significant amounts of money to defend against an uptick of class actions. Some of the largest funders, in some cases publicly-traded companies, have significant activities outside the US.

For the insurance industry, the mechanism is a double-edged sword. On one hand, it boosts opportunities to provide products and services to clients facing growing need for liability and legal expenses covers. Stronger consumer protection laws also drive pressure on producers to manage their liability risks by way of product safety and adequate insurance cover. On the other hand, the increased use of third-party funding can result in claims proliferation, longer litigation, more exposure for insurers defending such claims and higher settlement costs. Another worrying trend is the potential of governments to sell its law enforcement authorities to private firms in exchange for a payout. An example is the recent recruitment of external legal counsels by the Office of Attorney General, D.C for climate change litigation. These external counsels will be paid through the contingency fee arrangements in the event of damages awarded by the court.

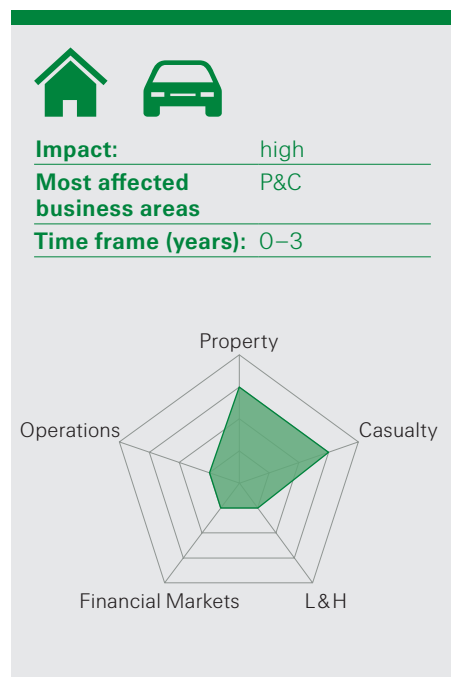
The other development – class actions – is focused in Europe. Influenced by scandals such as “Dieselgate”, the European Commission has proposed a “New Deal for Consumers.”²³ This would entail the introduction of a directive on representative actions for the protection of the collective interests of consumers. The core of the proposal is that a qualified entity would be able to bring a representative action before a Member State court or other administrative authority on behalf of classes of consumers. Where Member States do not already allow class actions, they would be required to introduce them. Nevertheless, while the above proposed directive provides progress, a deluge of litigation may not yet be in the inevitable trend due to adverse costs risks, as funders and insurers need to carry out significant due diligence on the cases they may invest in.

The European Commission considers only litigation-based class or representative actions, but these are not the only mechanisms for collective redress nor the most efficient. Conceivable alternatives include “regulatory redress” with regulatory authority intervention, which would be an agreement or order for redress to be paid. If coupled with an ombudsman scheme, such an alternative dispute resolution (ADR) could present a promising path.²⁴ The Commission’s “New deal” proposal is subject to political negotiations between the European Parliament and the Council. The outcome will have important consequences for the insurance industry.

²³ *Review of EU consumer law – New Deal for Consumers*, European Commission, 2017

²⁴ Christopher Hodges, *Collective Redress: The Need for New Technologies*, Journal of Consumer Policy, 2018

Technological and natural environment



Teaching an old dog new tricks – digital tech meets legacy hardware

Digital solutions and old hardware don't always harmonise. A prime and real example happened on 13 July 2017 when thousands of commuters were stranded during peak rush hour as the metro network in Melbourne went into meltdown.²⁵ The reason was that a 40-year-old interface board being used to connect to the new digitised software was not able to handle the input to the system's tracks and signals, which themselves were also outdated.

This example illustrates the existing challenge. Standard procedure is to seek to improve the operational efficiency of old assets with software enhancements. Technological improvements on software are made on an ongoing basis to keep pace with increasing capacity and complexity of demands. Much hardware, though, is still of yesteryear.

We see an increasing dovetailing of old and new structures, often in areas of critical infrastructure, including smart electric power grids or pipelines, hospitals or cash points. New technology as part of industry 4.0 – a term used to describe technologies like artificial intelligence, quantum computing, 3D printing and IoT in eg production processes – applied to legacy solutions changes the existing risk landscape. While it reduces some old exposures, it also gives rise to new risks. To this end, insurers need to continuously re-evaluate their risks assessments and adapt their underwriting approach to technological innovation as applied in complex, multi-stage, multi-party and sometimes multinational nature construction projects, as well as in legacy infrastructure.²⁶

Potential impacts:

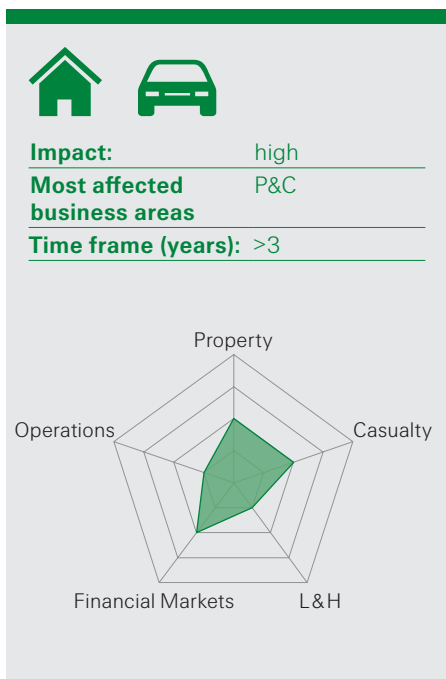
- Large infrastructure breakdowns or accidents triggered by new software not working with old hardware can lead to property damage, bodily injury and business interruption claims. There are also new forms of cyber risks to date not priced for.
- Large failures of key infrastructure like power or communications can also impact operations of the insurance industry.
- As technology increases connectivity, insurers face higher risk accumulation and unexpected losses potential from the combination of new software with old hardware.
- While technological innovation can lead to reduced claims frequency in certain areas (eg, advanced driver-assistance systems for vehicles), it may also increase claims severity by introducing new exposures to an existing risk landscape.

²⁵ Andie Noonan, *Melbourne suffers peak-hour train delays after computer fault*

²⁶ *sigma 2/2018 – Constructing the future: recent developments in engineering insurance*, Swiss Re Institute

5G mobile networks will enable wireless connectivity in real time – a prerequisite for broad use of autonomous cars.





Off the leash – 5G mobile networks

5G – short for fifth generation – is the latest standard for cellular mobile communications. Providing ultrafast broadband connection with higher capacity and lower latency, 5G is not only heaven for your smartphone. It will enable wireless connectivity in real time for any device of the Internet of things (IoT), whether that be autonomous cars or sensor-steered factory. In doing so, it will allow decentralised seamless interconnectivity between devices.

To allow for a functional network coverage and increased capacity overall, more antennas will be needed, including acceptance of higher levels of electromagnetic radiation. In some jurisdictions, the rise of threshold values will require legal adaptation. Existing concerns regarding potential negative health effects from electromagnetic fields (EMF) are only likely to increase. An uptick in liability claims could be a potential long-term consequence.

Other concerns are focused on cyber exposures, which increase with the wider scope of 5G wireless attack surfaces. Traditionally IoT devices have poor security features. Moreover, hackers can also exploit 5G speed and volume, meaning that more data can be stolen much quicker. A large-scale breakthrough of autonomous cars and other IoT applications will mean that security features need to be enhanced at the same pace. Without, interruption and subversion of the 5G platform could trigger catastrophic, cumulative damage. With a change to more automation facilitated by new technology like 5G, we might see a further shift from motor to more general and product liability insurance.

There are also worries about privacy issues (leading to increased litigation risks), security breaches and espionage. The focus is not only on hacking by third parties, but also potential breaches from built-in hard- or software “backdoors.” In addition, the market for 5G infrastructure is currently focussed on a couple of firms, and that raises the spectre of concentration risk.

Potential impacts:

- Cyber exposures are significantly increased with 5G, as attacks become faster and higher in volume. This increases the challenge of defence.
- Growing concerns of the health implications of 5G may lead to political friction and delay of implementation, and to liability claims. The introductions of 3G and 4G faced similar challenges.
- Information security and national sovereignty concerns might delay implementation of 5G further, increasing uncertainty for planning authorities, investors, tech companies and insurers.
- Heated international dispute over 5G contractors and potential for espionage or sabotage could affect international cooperation, and impact financial markets negatively.
- As the biological effects of EMF in general and 5G in particular are still being debated, potential claims for health impairments may come with a long latency.

Appendix A: High impact emerging risk themes, 2015–2019

Every year Swiss Re publishes new emerging risks in its SONAR report. Occasionally, an emerging risk is reported again in a later report in case new aspects emerge or if the risk persists with increased urgency. Some overarching themes and common aspects are usually reflected in every report, often in the list of emerging risks ranked with highest impacts. For 2015–2019, here we list the top risks of each year and discuss how the overarching concerns regarding market dynamics, cyber risks and climate change have been profiled in specific high impact emerging risk themes over the years.

Market dynamics

As a key sector of the financial industry, the insurance industry is exposed to market dynamics. In 2015, the euro zone crises and expansive monetary policies were in the foreground, as were concerns over domestic populist movements fostering de-globalisation. While uncertainties from central bank quantitative easing continued in 2016, a potential slow-down of emerging market growth was added to the top emerging risks list. International regulatory fragmentation and protective trade barriers were each flagged as top risks in 2017, next to a return of inflation. Then, in 2018 national protectionism and regulatory fragmentation to hamper diversification for international re/insurers were synthesised into a top risk under the theme “A brave new world?” Heightened geopolitical tensions and trade conflicts are further confirming ongoing concern about the volatile global business environment for insurers.

Cyber risks

Cyber risk presents one of the largest opportunities for the re/insurance industry, while simultaneously presenting one of the largest challenges. The frequency and severity of risks resulting from cyber-attacks and their changing nature, are expected to grow significantly over the next years. The need for cyber resilience has become a main focus of attention among corporate clients and insurance companies, triggering insurance demand. The SONAR report has flagged the evolving aspects of technological change and uncertainty in a series of cyber risk themes over the past years. This includes a focus on vulnerabilities from the IoT (2015), the challenges from increased internet fragmentation (2016), accumulation risks from cloud solutions (2017) and lurking cyber risk from end-of-life software and hardware still in use (2018). In this year’s report, we focus on exposures from 5G mobile and where software enhancements are applied to existing legacy hardware, particularly in the case of large infrastructure facilities.

Climate change

Swiss Re identified climate change as an emerging risk 30 years ago. Three decades on, we continue to flag the impact of climate change on specific risk factors and pools. For example, in 2015 we highlighted the associated theme of potential super natural catastrophes from “atmospheric rivers” affecting the US West Coast. We then raised a closer connection to climate change in the form of growing water stress and drought potential in our 2017 SONAR report, in our exposé on “The big drying”. Today, climate change has become a fully-emerged risk, and in this year’s report we have a dedicated section on its impact on life & health insurance.

Appendix A: High impact emerging risk themes, 2015–2019

2015	2016	2017	2018	2019
De-globalisation	The great monetary experiment (cont.)	Bugs on the march – underestimated infectious diseases	Asbestos reloaded – USD 100 billion in losses and counting	Limits to tinkering – the fiscal and monetary policy balance at risk
The great monetary experiment	Internet fragmentation	Reduced market access – protecting your own backyard	A brave new world? – emerging geopolitical risk	Teaching an old dog new tricks – digital tech meets legacy hardware
Super nat cats	Emerging market crises 2.0	The perfect storm – cloud risk accumulation	Algorithms are only human too – opaque, biased, misled	Off the leash – 5G mobile networks
Challenges of the Internet of Things		The big drying – growing water stress	Coming back to bite us – lurking cyber risks	It’s existential – climate change and life & health (Special feature)
		The return of inflation – the effect on insurance business	A slow poison – the erosion of risk diversification	Don’t ask, don’t tell – genetic testing and adverse selection
		Island solutions – regulatory fragmentation		

- **Societal environment**
- **Political environment**
- **Technological and natural environment**
- **Competitive and business environment**

Listed above are our risk themes from the SONAR reports 2015–2019 with high impact potential. Risks with medium and low impact potentials are not listed. These high impact risks are colour-coded according to their respective macro trend environments. Together with the following descriptions per risk, the synopsis reflects a “high priority portfolio” of emerging risk, as it develops over time. It also allows “to keep track” of older emerging risks and reflect that some of the risks are reported once only, others reappear, and some overarching concerns (see page 47) are monitored throughout the years.

Summary of high impact emerging risk themes (2015–2019)

2015

De-globalisation: Political conflicts have been intensifying over the last few years in many regions including Eastern Europe, the Middle East and East Asia. Sanctions and other interventionist policy tools have led to economic distress, driving an upsurge in populist and nationalist sentiment. In Europe, this could trigger territorial separatism (eg, Scotland or Catalonia) and eventually undermine integration projects such as the European Union.

The great monetary experiment: The euro area debt crisis lingers on, with only modest growth, high unemployment and unsustainable debt levels in some countries. Traditional policy tools, including expansionary fiscal policy and monetary easing, are no longer feasible. Nevertheless, extremely accommodative monetary policies continue and even intensify. Short- to mid-term consequences include extremely low interest rates, distortions of risk-return profiles, potential asset price bubbles, and increasing economic inequality. Longer-term consequences include potential for higher inflation and reputational damage for central banks.

Super nat cats: The US Geological Service published a study on a winter storm scenario, looking at the impact of an “atmospheric river” event with a return period of 1 000 years. Findings indicate that flooding would overwhelm flood protections in many areas, resulting in the evacuation of more than a million residents, direct property damage of nearly USD 400 billion and business interruption costs of about USD 325 billion. The risk of volcanic eruptions might also be underestimated as no large eruption has occurred since 1815. However, eruptions can have a devastating impact if they occur close to population centres. They can also impact global travel, as illustrated by the eruption of Iceland’s Eyjafjallajökull volcano in 2010.

Challenges of the Internet of Things: The IoT will revolutionise the digital world. Increased connectivity and reliance on digital processes raises questions about network and data security, resilience and long-term maintenance and software updates. Losses could occur from system malfunction and malicious attacks from hackers and criminals. There may also be legal and compliance risks due to the lack of consistent regulatory standards across countries.

2016

The great monetary experiment (cont.): Quantitative easing continues, resulting in a low to negative interest rate environment. Economic growth and inflation remains tepid in the euro area and Japan, triggering discussions about additional monetary policy stimulus. Negative interest rates will further undermine the conventional insurance business model, particularly for life insurers and pension funds.

Internet fragmentation: Cyber crime and espionage have grown strongly, making the internet less safe. Governments urge more effective protection of online assets and consider isolating critical IT infrastructure from global networks. Disconnected national/regional nets will become more common. Technology companies risk disruption to their business model and might face liability suits if no longer able to access data stored on cross-border servers.

Emerging market crises 2.0 – Amid rising US interest rates, economic growth in China has continued to slow, with knock-on impact on commodity prices leading to net capital outflows from emerging markets. Emerging market turmoil could hurt insurers’ balance sheets and may trigger detrimental regulatory consequences.

2017

Bugs on the march – underestimated infectious diseases: The risk factors associated with infectious diseases, even known ones, are changing (eg, climate change, animal husbandry, land use, and poor health in areas connected with the world economy). These factors could facilitate outbreak and proliferation of infectious diseases.

Reduced market access – protecting your own backyard: Free trade, open markets and globalisation are coming under increasing pressure, with governments favouring local markets and national champions. Protectionism is no longer an emerging market phenomenon.

The perfect storm – cloud risk accumulation: Ever more widespread use of cloud and cloud-of-clouds solutions comes with a variety of risks: cyber attack, technical failure, prolonged outage and data inaccessibility. The data volumes involved and service interruption potential pose significant and catastrophic risk to system resilience.

The big drying – growing water stress: Farming, industrial use and household consumption are exacerbating water shortages in a growing number of regions (eg, California, US mid-West, southern Europe, the Mediterranean, South Africa). Severe water shortages also have an adverse impact on food production and can undercut oil and gas production.

The return of inflation – the effect on insurance business: Inflation is picking up in US and UK (not yet Europe and Japan). A sudden increase in inflation can adversely impact insurer profits. The long-term effect of accommodative monetary policy of recent years remain unclear.

Island solutions – regulatory fragmentation: International regulatory coordination activities among G20 are increasingly stalling, diminishing the chance for international standards and norms, and leaving an uneven playing field. Regulatory island solutions increase coordination and operational costs, and compliance burden to multinational insurers.

2018

Asbestos reloaded – USD 100 billion in losses and counting: Millions of metric tons of asbestos are still being processed in many countries. A UN report showed that over 300 million people in Europe and Central Asia are potentially exposed. Latin America and other regions are at risk also.

A brave new world? – emerging geopolitical risk: The global political and economic balance has become multi-polar. Global institutions lack mitigating power in circumstances of conflict. Aggressive propaganda, cyber-attacks and other means of “hybrid war” between nation states increase uncertainty.

Algorithms are only human too – opaque, biased, misled: Algorithms are susceptible to discriminatory bias. Black-boxed workings of algorithmic calculations can conceal and perpetuate mistakes. What’s lacking is governance around development and application of algorithms.

Coming back to bite us – lurking cyber risks: Flaws and vulnerabilities in hardware (chips) and software may remain undetected for a long time (eg, “sleepers” cyber risk played out in recent WannaCry-attack). The risk is mispricing in cyber-covers, which may in turn impact operations.

A slow poison – the erosion of risk diversification: Re/insurance provides financial protection from risks by deploying capital across borders and lines of business. National protectionism and regulatory fragmentation are jeopardizing the benefits of international diversification.

2019

Limits to tinkering – the fiscal and monetary policy balance at risk: There is a growing consensus that another economic downturn will need a fiscal response. Potential responses include quantitative easing, “helicopter money” or modern monetary theory. The re/insurance industry could benefit if changes to policy bring growth and financial stability. The possible flipside is a rise in uncertainty, causing higher financial market volatility and declines in asset valuations.

Teaching an old dog new tricks – digital tech meets legacy hardware:

Technological improvements are ongoing. Hardware in areas of critical infrastructure, including smart electric power grids or pipelines, hospitals or cash points, however, is often out dated. As a consequence, insurers face higher risk accumulation unexpected loss potential in the areas of property damage, bodily injury, business interruption and cyber risk.

Off the leash – 5G mobile networks: 5G will enable wireless connectivity in real time for any device of the IoT, such as autonomous cars or sensor-steered factory. Current concerns regarding potential negative health effects from electromagnetic fields are likely to increase. Hackers can also exploit 5G speed and volume to acquire (or steal) more data faster. Major concerns are possible privacy and security breaches, and espionage.

It’s existential – climate change and life&health: The most pronounced risks from climate change affecting human health stem from heatwaves, floods, droughts, fires and vector-borne diseases. Millions of lives and healthcare services could be at risk. Without action, mortality rates and healthcare costs could soar, and this would have significant consequences for the health, workers’ compensation and life insurance lines of business.

Don’t ask, don’t tell – genetic testing and adverse selection: Over the past years, the cost of genetic testing has declined significantly and, with direct-to-consumer (DTC) testing kits, genetic tests are now available and affordable for individual use. It has been widely adopted by public health systems and individuals. This has significant implications for life insurers, not least in respect to the regulatory constraints involved.

Appendix B: Terms and definitions

What is SONAR?

SONAR stands for Systematic Observation of Notions Associated with Risk. It is Swiss Re's tool for identifying, assessing and managing emerging risks. Experts across the company use a web-based platform to collect early signals of emerging risks. All signals are assessed and prioritised by an emerging risk management team which closely interacts with topic experts from Swiss Re's business areas. The team serves as a catalyst for risk identification and assessment to define and implement recommendations in collaboration with the business. The findings are regularly shared internally and summarised for external audiences here.

What are emerging risks?

We define emerging risks as newly developing or changing risks that are difficult to quantify and could have a major impact on society and industry.

What are emerging risk themes?

Emerging risk themes illustrate potential new or changing risk developments for the insurance industry. They are mainly derived from SONAR but also draw on other sources. All themes have been assessed and edited by Swiss Re's emerging risk management experts. This report only features new emerging risk themes (ie, topics covered in previous editions are not listed again). You can retrieve prior reports from our webpage: www.swissre.com/sonar

What is meant by overall impact?

The overall impact is an indicator of the potential financial, reputational and/or regulatory impact associated with an emerging risk topic. It is assessed on a scale from high to low:

HIGH	Potentially high financial, reputational and/or regulatory impact or significant stakeholder concern
MEDIUM	Potentially medium financial, reputational and/or regulatory impact or moderate stakeholder concern
LOW	Potentially low financial, reputational and/or regulatory impact, or low stakeholder concern

What is meant by time frame?

We divide themes into those likely to occur in less than 3 years and those likely to occur over a longer time horizon. This assessment should not be used as an indicator of when action is needed, as some themes likely to occur in the more distant future may, nonetheless, require immediate action to prepare.

What is meant by impact per business area?

Spider graph indicating the potential impact on major insurance business areas on a scale from 0 (= no impact) to 4 (=significant impact).

What are trend spotlights?

Boxes throughout the text provide selective spotlights on emerging trends which could become relevant for the re/insurance industry and its clients. The selection of topics is non-exhaustive, and descriptions are intended as food for thought and discussion starters rather than comprehensive reviews.

What are macro trends?

Swiss Re has identified a set of macro trends assumed to have a high impact on the re/insurance industry within the next 5 to ten years. The macro trends featured in this report have been selected independently through expert discussions and surveys. They provide context to the emerging risk insights from the SONAR process.

Title

Swiss Re SONAR – New emerging risk insights
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