

**Enterprise Risk Management  
in Today's World, Part A**

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# **Enterprise Risk Management in Today's World: Enterprise- Wide Risk Management and Strategy, Part A**

BY

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INVESTOR IN PEOPLE

# Epigraph

*Whenever a theory appears to you as the only possible one, take this as a sign that you have neither understood the theory nor the problem which it was intended to solve.*

*The old scientific ideal of episteme – of absolutely certain, demonstrable knowledge – has proved to be an idol. The demand for scientific objectivity makes it inevitable that every scientific statement must remain tentative forever.*

Karl Popper

*You can't depend on your eyes when your imagination is out of focus.*

Mark Twain

*Our greatest glory is not in ever falling, but in rising every time we fall.*

Confucius

*The position and momentum of a particle cannot be simultaneously measured with arbitrarily high precision. There is a minimum for the product of the uncertainties of these two measurements. There is likewise a minimum for the product of the uncertainties of the energy and time.*

Heisenberg, in *Uncertainty principle paper*, 1927

*The world is changing. Networks without a specific branding strategy will be killed I envision a world of narrowly niche services and tightly run companies without room for all the overhead the established networks carry.*

Barry Diller, press Tycoon

*If a nation expects to be ignorant and free in a state of civilization, it expects what was and never will be. The people cannot be free without information.*

Thomas Jefferson letter to Charles Yancy (1816)

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# Preface: Context for Linking ERM and Strategy

The complexity of the business context, combined with the intricacy and inter-connections of risk and objectives – necessitates the organisation implement a strategic approach to business and operational resilience. Indeed, there is a growing focus on resilience exacerbated by the pandemic and ensuing geopolitical upheavals. Resilience is the capacity to recover quickly from difficulties/ruptures; the ability of a business to spring back from any disturbance. This is quite critical and many organisations rightfully merge risk management and business continuity management into what is enterprise risk management (ERM), sometimes defined as a resilience programme.

Any academic studying risk management can only be surprised that at a time when the world is becoming more and more complex and volatile, most MBA programmes are still resting on old scientific principles: they remain founded on Democritus' description of the atom or at best Bohr's. To be specific, management principles are still anchored on classical physics that allows five-year planning exercises. If governments dropped this practice after the fall of the Soviet Union, how is it possible that so many firms are still indulging in it? Could it be that too many managers have failed to recognise that times are no longer such that a deterministic approach to the future is reasonable?

Traditional physics is founded on the principle that similar causes have similar consequences and proportional causes have proportional consequences. This was fundamentally challenged with advances of modern microphysics, which can be summarised in the uncertainty principle, also called the uncertainty relations, set out by Heisenberg. To some extent, it is this research that opened the path to chaos theory, which does not yet seem to have influenced strategic thinking in most organisations, even if some visionaries appear to be inspired by it, consciously or unconsciously.

Of course, the founders of Apple, Google, and other GAFAs come to mind. However, there are also leaders of start-ups and small- and medium-sized enterprises (SMEs) that may be visionary in their own right like the founders of Airbnb, Uber, etc. SMEs are at the heart of jobs and value creation not only in developed countries but also in emerging countries.

To summarise, it seems reasonable to assess the strategic processes currently implemented in most organisations as too rigid and sequential; strategy rests still on the idea that the world's evolution is a series of stems that allows controllable processes. Resting on periodic reviews of their internal and external contexts, the leaders of these organisations operate without the continuous scouting of the

future that would allow them to decipher low-level noises or sentinel events that facilitate an efficient forecast of future evolutions and anticipation of revolutions so that the organisation's relevance for its stakeholders' networks can be maintained at all times.

Major economic players, including nation states, have now the capacity to develop and implement models that are increasingly powerful and even include learning capabilities thanks to artificial intelligence (AI):

Our systems learn by themselves from experience; however, we still choose their learning path. But we must always keep in mind that even the more complex games are more accessible to the computers than the general issues confronting the real world.<sup>1</sup>

However, even AI specialists remain cautious when it comes to replacing human brains with machines in complex decision-making. As for Werner Heisenberg, reading his principle makes it clear that he questioned the use of the normal distribution, thus opening the possibility of extreme situations, rupture, or black and grey swans. Risk management professionals prefer the concept of artificially enhanced intelligence.

About quantum physics, Heisenberg stipulated that as the exact position of a particle cannot be known at a given point in time, the future cannot be determined. A specific trajectory does not lend itself to a precise computation, but only a range of possible trajectories can be determined (however, using Erwin Schrödinger's equation, it is possible to assign a probability to each trajectory).

Economists have yet to produce an equivalent of Schrödinger's equation, as the economic world cannot be described with a simple list of drivers. It is complex and necessitates factoring in the human dimension, so interactions are volatile and will need to be approached with fuzzy logic integrations. Would it be reasonable to expect forecasting the future with precision, when even the present eludes the human brain?

For risk management professionals, the good news is that uncertainty and risk must be more and more at the centre of all decision-making, strategic, tactical, or operational; that does not result in the world of decision-making belonging to risk-managers. However, all professionals have understood that the issue of risk has become essential in any decision-making, and they are ready to occupy the field should the existing risk-management professionals not step up to the plate. Competition for the attention of the board for risk issues is open with:

- internal and external auditors with their three lines of defence,
- quality control managers (*whose legitimacy in tackling risk is reinforced by the ISO 9000:2015 which includes a chapter on risks*),
- security and safety specialists, economic intelligence consultants, and
- continuity managers (*another member of the risk professional community*)!

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<sup>1</sup>Denis Hassais, founder of DeepMind.

And the list is still open with resilience management as the newest entry. There is a growing list of risk management in specialised branches, but they can be gathered under one roof as they have common goals and use the same tools. With the proliferation of ISO standards dealing with specific risks, the erection of new silos can be feared.

There is no doubt that risk management has a bright future, especially after the pandemic and the geopolitical unrest, even if it might be shared by many, indeed by all practitioners. As far as the risk manager's function in any organisation is concerned, even adorned with the title of chief risk officer (CRO), a function that is still developing after over two decades of existence while the Chief Information Officer (CIO) is now widespread and involved in cyber-risk management, it will survive in this maelstrom only if the incumbents can acquire the talents and competencies needed to grasp what is at stake and manoeuvre to make it to the front of the pack!

The management of risk is a director's and officer's mission; there is not much debate about it now that the codes of governance worldwide tend to assign them direct responsibility and liability to develop and guide their organisations' policies with a clear understanding of and due consideration to the uncertainties and storms of the future. However, without proper gears and relays at all levels in the organisation and with its main partners, the extended enterprise, even the best-defined policy would have little effect on the well-being of the organisation or society at large.

Managing risk is a core mission for all public and private actors. The survival of all depends on the vigilance of each one. This has a special echo for those individuals who have been trained for special forces or intervention units and those dealing with terrorist attacks!

Furthermore, the generalised explosion of social media, now a key player in all social debates, means that transparency in communication and consultation with key stakeholders has become essential; however, it may interfere with speedy decisions required at the early stages of a rupture when a dramatic strategic change may be called for.

Whatever the situation, any new strategy has a reasonable chance of success only if all those involved embrace the change, not only within the organisation but also beyond, i.e., both internal and external stakeholders. This is the reason why a continuous strategic process must be developed and implemented, provided it is informed by global and integrated risk management and positioned in a change management effort where all can be heard and listened to.

In such a context, the question of democracy in the company, which was at the heart of the debates at the end of the 1960s during the students' upheavals, seems to gain new momentum. However, it is unlikely that there will be a 'one size fits all' route to democracy. Sometimes, it will surge from the base; others, it will result from the will of top management, but success will require both to meet on a common course.

When it comes to change, top management must do it, but all those involved must then embrace it. There is no unique strategy to develop and implement the instruments and processes of resilience, and this is indeed the case for the

guidelines proposed in the ISO 31000 standard: it is a toolbox where each artisan must find the most efficient way to use them in each organisation.

In a world evermore complex and volatile, it is not reasonable to build models on deterministic approaches or one man's vision; therefore, ERM becomes a key as it offers an approach in which uncertainty is at the centre of any decision. Furthermore, ERM top-bottom and bottom-up paths ensure that all adhere to permanent change, whereas change is what destabilises human beings in any society, as well as any organisation.

As far as democracy and equality are concerned, nobody (except for a few admirers of Proudhon) wants to stray from capitalism, but many want to see a return to the reduced levels of inequality that prevailed before the late eighties.<sup>2</sup>

Readers looking for simple solutions or checklists will be disappointed. The present book is not a cookbook with recipes but rather a book of questions, on all the challenges that any entrepreneur, director, officer, or elected official must meet if (s)he is to promote resilience and justice for the future in a very uncertain context and to navigate safely through the high seas ahead. ERM does not set aside hazards but aims to optimise risk-taking: enhancing opportunities and curbing threats. ERM is therefore in essence at the core of any strategic exercise.

If climate change is not heavily mentioned, it is because there are already many books offering experts' thoughts on the matter, from the likely causes to the prevention and protection measures that could be implemented, not to mention the Intergovernmental panel on climate change (IPCC) reports.

Furthermore, most of these solutions are beyond the domain of decision and strategy of individual actors, even if individual efforts should not be undervalued. There is also the nagging issue of artificial intelligence, already mentioned. Organisation for Economic Co-operation and Development (OECD) expects AI will become a major threat to humankind within 20 years, but investigations into this scenario seem still at an early stage despite recent developments like chat-GPT. However, all organisations must consider these risks in their strategic process at the horizon of 2030/2050. As with other emerging risks, AI and climate change are sources of threats, but they also offer many opportunities for innovators, including transition risk.

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<sup>2</sup>Atkinson, A. B. (2015, May). *Unequality – What can be done?* Harvard University Press. See review. <http://www.hup.harvard.edu/catalog.php?isbn=9780674504769&content=reviews>

# Introduction: Risk-Management in a Pandemic and Post-Pandemic World

Some risks that we believe are unknown are not. With a bit of foresight and critical thinking, some risks that at first glance may seem unexpected, may in fact be foreseen. Armed with the right set of tools, procedures, and knowledge, we can shed light on the variables that lead to risk, allowing us to manage them. (Daniel Wagner)<sup>1</sup>

Originally written in 2018, this book was revised in the spring of 2023 to be relevant to the ‘new reality’ generated by the COVID-19 crisis that spilled all over the world followed by the war in Ukraine and the ensuing Economic turmoil. In terms of world governance and strategy, the COVID-19 crisis that developed during the years 2020 and 2021 was an illustration of the very limited anticipation capacity in the international community.

Of course, it is tempting to rewind history to the time when the mad cow disease took the world by surprise; at the time, George-Yves Kervern<sup>2</sup> analysed the crisis using the hyper-space of danger and predicted that one day the world would be confronted with a catastrophic pandemic originating in bush food. However, if the truth must be told, despite his contributions to the World Health Organization (WHO) seminars, his readership was limited to a circle of specialists and followers.

If the truth must be told, even for the organisations that had included pandemics in their risk register, little attention was given to preventing and preparing for a catastrophic event as none had foreseen the velocity and the extent of the event. Speaking about the EBOLA outbreak in Africa in 2014, during a conference still available on YouTube, Bill Gates concluded: ‘We were lucky this time’.<sup>3</sup>

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<sup>1</sup>Director of SIRH D. Wagner & Partner.

<sup>2</sup>See ‘The Science of Danger’ by George-Yves Kervern, <https://www.questia.com/magazine/IG1-16902905/cindynics-the-science-of-danger>, and Georges-Yves Kervern, *Éléments fondamentaux des cindyniques*, Economica, Paris, 1995 (ISBN 2-7178-2756-0) (notice BnF n° FRBNF36682872).

<sup>3</sup>Bill Gates: Ebola is an ongoing tragedy. <https://www.youtube.com/watch?v=ipE3Oli8j8o>

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In the course of this conference, Bill Gates predicted that if the world was not readying for it, the disease could cause millions of deaths and result in a catastrophic economic impact. If a new disease could 'spread by air, reaching people who would only experience the first symptoms with delay and still be able to travel by train and air'.

Without rolling back to the last century and the mad cow disease, a NIC<sup>4</sup> report published in 2009<sup>5</sup> on the projected state of the world in 2025 states that: 'If a pandemic occurs, it will occur in a densely populated area, close to humans and animals, as is the case in some markets in China or Southeast Asia, where people live close to livestock'. The only missing element is that the market would be in Wuhan. But NIC experts stated that they envision the emergence of a 'new virulent and highly contagious human respiratory disease'.

The initial daily management of COVID-19, and again for the following waves worldwide, was evidence of the shortfalls of the current world governance: it is not appropriate to react efficiently to such outbursts. Whereas trade globalisation is continuing at an accelerated pace, political fragmentation and local conflicts have prevailed on the international scene. The cold war that was brewing behind the scenes now shows its true face under the raw light of COVID-19 and was further exacerbated by the war in Ukraine. In my opinion, in such a context:

- The mission of the current and future US administrations will be to reinvest in international institutions and to reconnect with America's natural position as a leader in global governance;
- The European Union (EU) will have to be at the forefront of the revitalisation of global governance, as President Macron has attempted in his efforts to revive the G7 and the G20 to deal with the economic and other consequences of the pandemic and more recently trying to promote a specific European voice in the world. The EU must also try to convince the Americans to adopt the geostrategic 'new paradigm' based on transparency and sustainable and equitable development. Hopefully, this might be a by-product of the current geopolitical turmoil.

The combination of these efforts would also offer the possibility of rebuilding the transatlantic relationship while involving countries such as South Korea or Japan, which are part of the 'alliance for multilateralism', led in Europe by Germany and France, and contain China's expansion.

In the United Kingdom, it is clearer after the pandemic that the National Health System (NHS) must still be reengineered from top to bottom and not only in terms of healthcare. Jurgen Klopp, manager of the FC Liverpool, when questioned about the COVID-19 and containment noted: 'If it is a choice between

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<sup>4</sup>National Intelligence Council.

<sup>5</sup>Global trends 2025: A transformed world. [https://www.files.ethz.ch/isn/94769/2008\\_11\\_Global\\_Trends\\_2025.pdf](https://www.files.ethz.ch/isn/94769/2008_11_Global_Trends_2025.pdf)

football and the good of society in general, it is not a contest. It is not the case'.<sup>6</sup> The same issues will also have to be reviewed in most EU countries, and some governments have already entered into discussions with stakeholders. In France, could the format of the citizens' convention used to tackle climate change be considered to meet other societal challenges?

In the ISO31000:2018 standard,<sup>7</sup> risk is defined as 'the effect of uncertainty on objectives'. In principle, organisations develop efforts to identify the risks they are confronted with and then analyse and prioritise them. However, the reality has become even more complex with the current COVID pandemic, so risks can no more be approached individually or in nicely labelled silos. Silos do not take into account increasing interdependencies of risks.

## Domino Effect

When a risk materialises with the occurrence of an event, more and more often, the organisation endures a domino effect. This means that what starts with only one domino soon cascades on many other dominos and many other risks. Upon analysis, the recent COVID-19 crisis has started as a health and safety issue in Asia. However, it soon cascaded into a worldwide pandemic, generating additional risks to the economy of many countries. It is therefore not possible anymore to isolate the initial cause, the root cause, from the resulting maze of interconnected risks and objectives.

## A Global Impact

The initial health and safety risks in a Chinese province have now expanded into a global issue, and the following factors must be taken into account:

- **Risks on objectives:** With the development of the pandemic, organisations were impacted specifically on their operational objectives. To respond to the situation, they had to revise their objectives. Entities, divisions, departments, processes, projects, and assets: objectives at all levels had to be reassessed taking in the new level of uncertainty generated by the pandemic impacting both old and new objectives. This is the result of the economic and operational impacts of the coronavirus.
- **Risks on operational resilience and continuity:** In the COVID-19 context, organisations are under additional stress and increased exposure in all their processes, from supply to delivery, including production. In many organisations, continuity of operations efforts had been directed only towards information systems, and post-pandemic operations reboot had not even been considered, let alone prepared. Continuity planning in case of a computer virus attack

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<sup>6</sup>*Jürgen Klopp's message to supporters.* (n.d.). Liverpool FC. <https://www.liverpoolfc.com/news/first-team/390397-jurgen-klopp-message-to-supporters>

<sup>7</sup>*ISO 31000:2018.* (n.d.). ISO. <https://www.iso.org/standard/65694.html>

does not apply when an entire population is contained. Confronted with the loss of personnel, process modifications, and a focus on telecommuting from home, organisations tried to cope while being faced with increased exposure and uncertainty.

- **Cyber-risk:** The extensive use of telecommuting made necessary by confinement has an important impact on computer system safety as the home context is generally less secure than the workplace is. The issues concerning the Internet, the provider, and television programmes in the employees' domicile create many weak points for the safety of the organisation's data and its connections. Furthermore, hackers and organised crime realised that the crisis was providing them an opportunity to infiltrate organisations and steal their data.
- **Third-party risks:** In the case of extended enterprise architecture, which is becoming more common nowadays, half of the staff is not made of traditional salaried persons. Buildings and employees are not enough to define an organisation. Organisations have become a complex network of relationships including suppliers, sub-contractors, salespersons, service providers, brokers, agents, and dealers, not to mention intermediaries. Some situations have been particularly dire with sub-contractors and service providers forced to close down following containment and unable to deliver the promised goods and services. Supply networks have experienced ruptures and cases where deliveries were no longer feasible.
- **Risks to organisation culture and control:** Quick process changes necessary to react to the pandemic have left many organisations without proper control systems. With reduced teams, staffs wear several hats, and that creates an increased risk of segregation of duties conflicts. Employees' attention may be diverted by their worries about the global economy, their own safety and security, and that of their loved ones. Contrary to what some may think, working from home rather than in their offices tends to increase the feeling of insecurity for many.
- **Fraud risks:** At a time when economic uncertainty is exploding with a looming recession, staff is under even more pressure to make ends meet. Employees who were above any suspicion, which did not even conceive of stealing or committing fraud under normal circumstances, might start down a slippery slope due to their economic distress and the uncertainties they are confronted with.
- **Corruption risks:** Procurement networks are stressed and organisations are pressured to reach their objectives; these two factors combine to increase the risk of corruption, passive and active. In addition, customs and import/export services tend to operate at a slower pace in many countries and that could induce some operators to offer bribes in exchange for accelerated customs clearance. It could also be the case for obtaining specific contracts or permits while public administrations are nearly at a standstill.
- **Modern slavery and human rights risks:** Human rights seem to be somewhat flouted in several parts of the world currently. This was already true before the pandemic, but it seems that the situation is exploding now. However, the issue is not limited to civil rights and the treatment of specific groups by authority holders; it is also an open wound in production sites and procurement networks. The COVID-19 has hit particularly hard in some parts of the world.

Factories have lost workers, some are contaminated, and some are even dead. As a result, more children have been put to work, there is an increase in forced labour, and working conditions are deteriorating.

- **Harassment and discrimination risks:** Social unrest has increased even before the pandemic, but with the second wave in Europe, it seems that populations are losing faith in their government and do not see an end to the COVID-19 tunnel. Beyond protestations and fuelling violent actions, the pandemic seems to have exacerbated discrimination and even anger against some ethnic groups especially where even heads of state insist on the ‘Chinese origin’ of the coronavirus, not only Chinese are targeted but all Asians ....

Men and women working from their homes, not under the usual conditions of an office, have difficulties adapting to their new ‘work’ environment and giving their attention to the work, especially when children are calling for attention in cramped housing. Interactions through e-mails, text messages, and video conferences tend to become more and more relaxed; some have let down their guard and risk statements that fall into sexual harassment.

And the risk list could be extended to private life risks: compliance issues, with the difficulty of maintaining compliance with all health, safety, and security rules and regulations in the midst of constant changes in operational processes, etc.

However, beyond a better understanding of each risk, it is essential to take into account risk interconnections. Organisations must develop a comprehensive exposure diagnostic taking into account these interactions. One of the risk-management tools available is developing scenarios and brainstorming exercises so that they can envision potential risk development, how another risk can be triggered in a given situation, and what are the potential impacts on objectives.

The COVID-19 pandemic has brought new light on how risks are interconnected in ways that can exacerbate the overall impact, and the geopolitical upheaval that occurred while the world was slowly recovering from the pandemic put an additional accent on the dire reality that managing risk requires a global approach, no risk can be managed alone.

The risk and insurance management community is an important partner both inside organisations and externally to building resilience; risk management professionals have developed a framework that can be incredibly useful when it comes to managing sustainability and related risks. It is clearer and clearer that a robust insurance/reinsurance industry is an essential component of a resilient society.

Men who take great risks must expect to often bear the heavy consequences. (Nelson Mandela)

Furthermore, the enterprise risk management (ERM) framework provides a paradigm of effective governance and methodologies that may incorporate sustainability into pre-existing processes.

Risk managers have long acknowledged the significance of ‘sustainability’ and have dedicated several years to addressing this issue, particularly in the realms of responsible corporate practices, climate change, and Environmental, Social, and

Governance (ESG) risks. Risk managers serve as risk coordinators or facilitators within an organisation, gathering information from other risk-related roles to provide a concise and complete perspective to top-level management. The past pandemics such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) did not affect Europe, so it was not a shock to see that most people were so surprised there. Rigorous governmental lockdowns and lack of mobility were actually a surprise for most as well, as they spread around the globe.

To limit the impact of a disaster and enhance post-crisis recovery, safety, and risk, specialists have designed strategies to strengthen societies' resistance when confronted with hazards. Thanks to increasingly complex and sophisticated modelling probability intervals for the hazard, force and consequential impacts can be evaluated and models gain in precision, thus reducing the level of uncertainty. Armed with this new information, specialists cooperate with leaders, in public and private organisations, to ensure that proper defence tools are put in place to protect society to the best of their understanding.

In the case of flooding, for example, it induced the erection of embankments along rivers, and dams upstream of large cities to monitor high waters, and additionally produce electricity. Furthermore, short of limiting the frequency or force of natural perils, similar strategies have been developed to limit the impacts of earthquakes, volcanic activity, cyclones, tsunamis, etc.

However, the efficiency of such strategies is limited by the fact that it is still difficult to predict where and when the hazard will strike, even when considering the path of past hurricanes. It is exceptional to be able to predict with precision the contact point of any hazard, so many factors are intertwined that it is impossible to have precise forecasts, and therefore, it is a challenge to determine a proper location and scale for protection works. In such situations, to simplify those when no probability law can be assigned, it is necessary to consider new strategies based on the concept of resilience. These strategies do not try only to prevent hazards or reduce impact but prepare to deal with disturbances as they occur to mitigate their consequences and facilitate the organisation's rebound.

Successful countries during the last pandemic like Hong Kong, Taiwan, and South Korea have implemented proper training, capabilities, and capacity to react swiftly, and thus they proved agile in the crisis. Setting priorities is essential, but it is difficult because only so many hospitals can be up and running as they are expensive. Major Asian countries have been living examples for countries of Europe and North America. And from such examples, developed countries could have learned sanitary crisis management. Robust preparation can help avoid dire economic and social measures such as travel restrictions or lockdowns.

If COVID-19 and the pandemic have been the number one risk for everyone for nearly three years, nevertheless, leaders should not forget about the other big risks such as cyber, climate change, supply chain, people and reputation, and even war! The pandemic, the War in Ukraine, and above all growing draught in all parts of the world leading to a global water crisis, will hopefully make it more urgent for all to tackle climate change, the surge of natural catastrophes, geopolitical tensions, and the like. There is definitely a stronger opportunity for risk

managers to enter the boardroom if they are not yet invited. The rapid change in the style of working, with widespread home working, has presented a serious information technology (IT) security risk. This is not an overnight project and will promote new ways of working and continuing business.

This evolution will require a big investment in technology and cyber-risk management. Understanding and predicting human behaviour is a major challenge in creating effective cyber and pandemic risk models, and there is a need for creative, but reality-based, imagination to represent forward-looking risk is critical.

One of the main lessons learned from this crisis, and ensuing insurance market restrictions, is that it is primarily up to organisations to develop their risk financing capabilities through retention including captives or provisions, as commercial insurance is less and less relevant to the critical risks that organisations face. Continuing with the sole logic, ‘extract, produce, throw away’ would lead humanity straight into the wall. In reality, COVID-19 offers an opportunity to launch a new economic model, more robust and more resilient. Circular economy, solace in a gloomy context, may also prove to be the light at the end of the tunnel.

Finally, reframing the current pandemics with the warnings of the past decade, COVID-19 proved more revealing existing endemic problems than generating new ones: Emerging risks are more the exacerbation of existing risks, and COVID-19 is a game changer by revealing interconnections. In a post-pandemic world, nothing could be the same.

Hope is essential, but public vigilance is needed to tackle the many issues ahead to forge a new future. Whatever the ‘new normal’, circular economy or not, leaders at all levels, individual, organisational, and societal, will have to establish an intimately interwoven strategy and risk-management process to help lift the fog on the future and promote better-informed decisions. Precisely, this book aims to assist leaders in developing robust ERM programmes to strengthen the strategic process and enhance organisations and social resilience.

If, as a concept, resilience must be based on objective scientific criteria to be highlighted, as a socio-cultural phenomenon, it may be the object of ideologies or fantasies, or policies that attempt to regulate or control the perception of each other in the face of adversity.<sup>8</sup>

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<sup>8</sup>See *Quelle résilience pour quels modèles de société? The Conversation*. <https://theconversation.com/quelle-resilience-pour-quels-modeles-de-societe-137666>