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# **SUSTAINABILITY INSIGHTS FROM COVID-19**

BY NILES MAXWELL



The human tragedy of the COVID-19 pandemic leaves in its lasting wake many questions about what's in store for all of us going forward. Despite the uncertainty, it doesn't take much effort to read up on what is happening with both the virus and the global economy as a result of our response to the pandemic. We know that the outbreak itself is far from over. Our direct response through lockdowns, border control measures, testing, physical distancing and the banning of public events are likely to last in one form or another into at least the second quarter of 2021, depending on your geographical region. Every conservative estimate for the length of time it will take to develop a working vaccine has set the minimum at 18 months. That means we have no assurance of a permanent end to the spread and immediate impacts of COVID-19 until well into 2021.

In many countries in the northern hemisphere the peak of the outbreak is already over. Global epidemiological modeling around COVID-19 for when the peak hits depends on many factors, but it is ultimately tied to [when the cases stop doubling](#) as well as the accuracy of the data collected. But we have already seen that in certain regions, resurgent outbreaks are taking place. This pattern does not bode well for the global economy.

Unlike the 2008 recession, we are on the precipice of a long-term economic slump the likes of which we can't entirely fathom. [The IMF predicts](#) that in 2020 the advanced economies

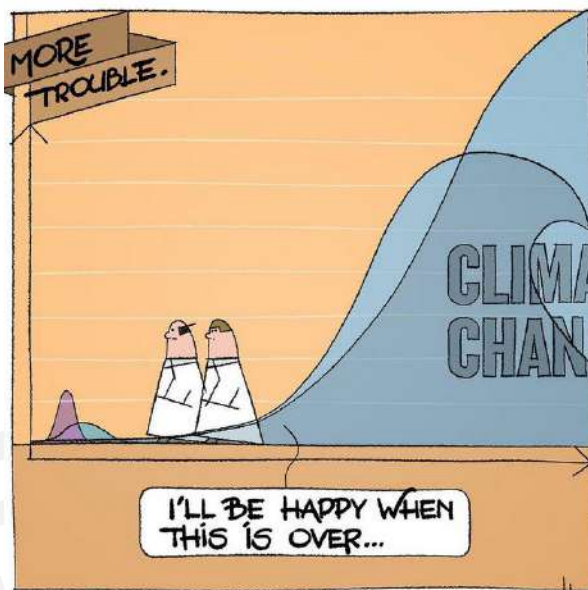
will shrink by 6.5% and the developing economies by 1% in real gross domestic product (GDP). The level of U.S. unemployment was about 4% prior to COVID-19. If the unemployment numbers continue to increase, we can expect another 10 million people to apply for unemployment before things flatten out, approaching Great Depression era levels of unemployment, as [Goldman Sachs recently predicted](#). At some point, grants, tax incentives and business loans are going to run out and won't help bring the global economy out of this recession. Stock prices will rise and fall, but it seems that nothing that governments or central banks can do will reverse the economic damage that has been done.

If you are lucky enough to still have a job and are still working from home, it has probably not yet registered how bad the economic crisis is going to be. We can't wrap our heads around it quite yet—it's all too theoretical at this point. It's catastrophic, yet we still have Netflix.

The COVID-19 pandemic is set to cause a generational transformation in our perceptions. It could be an opportunity for humanity to overcome the even more disastrous environmental crisis on the horizon. To that end, I have written this e-book to give you an overview for how we can use the insights from our experience with the pandemic to understand and counter the even larger wave of danger posed by the escalating environmental crisis. ▶▶







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## Insight 1: Fear of Future Global Risk Will Accelerate Environmental Action

Black swan event risk is gaining attention in the media now. The contracting global economy caused by our response to the COVID-19 pandemic has caused many

business and governmental leaders to look at doing everything in their power to prevent, reduce and prepare for risk associated with future global force majeure events. As already stated, the next big visible global risk to economic growth, which people are more and more conscious of, is the risk associated with anthropogenic (human-generated) environmental impacts.

The difference is that environmental degradation poses an even greater risk than COVID-19 to economic growth (again, we can't even fathom what it will mean), and unlike this temporary health crisis, the impacts of the environmental crisis will be permanent. The damage caused by such degradation is irreversible once we pass

certain thresholds. For example, with acidification and warming of the oceans, we are likely to lose as much as 90% of the Earth's coral reefs [according to environmental scientists](#). With climate change, the threshold we must not cross is 1.5°C/2.7°F above preindustrial levels, a threshold we are quickly approaching. With biodiversity, we are already experiencing mass extinction of species. If we fail to act decisively within the next 10 years, the cumulative impacts won't just go away after a decade or a century. The devastation will continue indefinitely into the future, arguably leading to the [end of human civilization as we know it](#).

Beyond the terrible dangers to health and human safety, there will be an immeasurable loss of biodiversity, the massive displacement of people, increased military conflicts over scarce resources and other deleterious effects.

Organizations that examine risk need to look at two main risk factors: transitional risk and geographical risk to assets. Transitional risk is the risk to a business or government posed by the cost of transitioning from business as usual to sustainable operations and production, such as the transition from high carbon emissions activities to low carbon or carbon neutral behavior.

Depending on the level of governmental implementation of environmental regulations, some countries will fare better than others, [according to S&P Global](#). "Exposure to transition risks linked to carbon pricing is greatest for the S&P 500 in the United States and Australia because of the high degree of action needed to shift comparatively weak carbon-pricing policies to deliver on climate-change goals." Naturally, companies and governments largely dependent on fossil fuels for energy are at the highest risk when it comes to the anticipated carbon pricing schemes.

Geographical risk is the risk to assets prone to damage or destruction because of climate impacts. So, for example, a U.S. company is susceptible to environmental risk if it runs facilities near the Atlantic coast because there we can expect larger and more frequent storms and increasing sea levels to threaten those physical assets. We already see many examples. To protect only 25% of the population of the city of Charleston, South Carolina, [it will cost \\$2 billion](#) to counter the regular flooding from the sea level rise and fierce and frequent storms caused by global warming.

COVID-19 has brought the fear of these

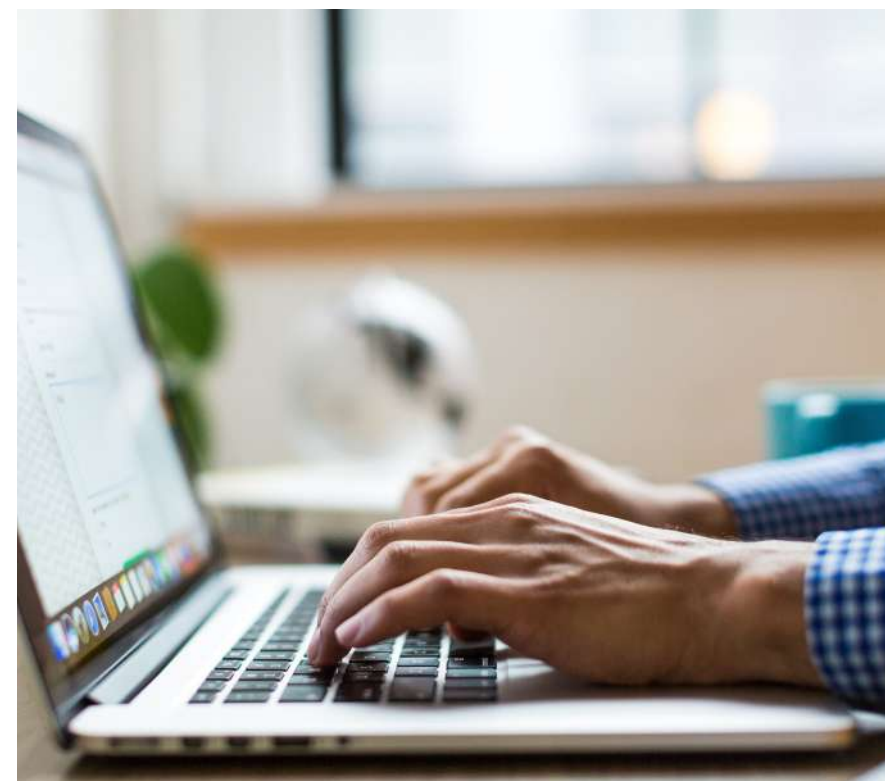
environmental risks to the forefront of governments and businesses. This fear of risk is an opportunity to prevent the worst impacts of environmental degradation from becoming a reality. For the risks associated with climate change, we know what's coming, and we can actually do something about it right now.

## Insight 2: Introspection Helps Advance Sustainability

All of this sounds a little apocalyptic. We don't like to examine the negative possibilities. We don't like to look at how bad things could be for us. But with the COVID-19 pandemic, the isolation and the physical distancing has created time for many people and companies to take a breath and reflect, especially about the human side of all this, our quality of life and work-life balance. More than one person has told me about how they've noticed how beautiful the sky is now when they look up at it, free of the contrails left behind by air traffic. Free of air, land, water and noise pollution, our planet is an aesthetically pleasing place.

Even as areas slowly start reopening, people around the globe have now been confined for an extended period of time. We have been confined

This economic downturn, like the Great Recession, is likely to create greater disparities between the wealthy and the poor.



to our homes, to our cities, to our countries. Being restricted from movement has given many of us the opportunity to turn inward, to engage in a reevaluation of our lives, our jobs, our relationships. It seems we are often so focused on achieving external goals that we forget ourselves and fail to take time to evaluate our lives.

During my own period of reflection, I happened upon an [interview](#) from the 1986 documentary film, "Matter of Heart," with the analytical psychologist Dr. Marie Louise von Franz. In it, she describes what Dr. Carl Jung—the Swiss psychologist responsible for giving us the terms "introvert" and "extrovert" and for systematizing personality types—predicted toward the end of his life. He foresaw the last 50 years of humanity. Let's take a moment to read the transcript of that interview:

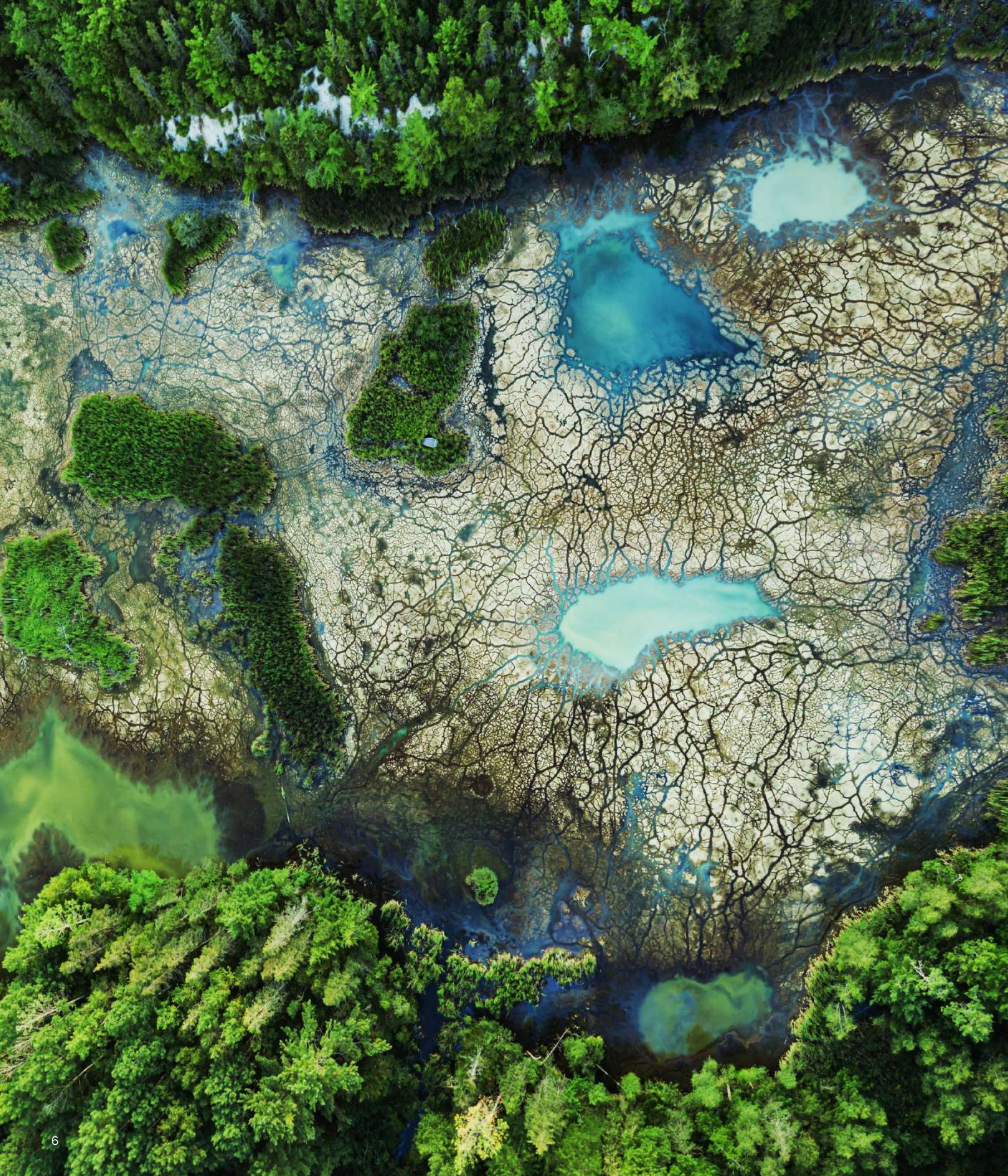
**Interviewer:** "Jung had a vision at the end of his life of a catastrophe. It was a world catastrophe."

**Dr. Franz:** "I don't want to speak much about it. One of his daughters took notes and after his death gave it [to me] and there is a drawing with a line going up and down and underneath is the last 50 years of humanity and similar remarks about the final catastrophe being ahead. But I have only those notes."

**Interviewer:** "What is your own feeling about it, the world situation?"

**Dr. Franz:** "Well, one's whole feeling revolts against this idea, but since I have those notes in a drawer, I don't allow myself to be too optimistic. ... We have always had wars and enormous catastrophes. ... But the beauty of all the life, to think that the billions and billions and billions of years of evolution to build up the plants and the animals and the whole beauty of nature and that man would go and destroy it all, I mean that all life might go from ►►





the planet. And we know on Mars and Venus there's no life, and we don't know if there's any life experiment elsewhere in the galaxies and we go and destroy this. I think it's so abominable. I try to pray that it may not happen, that a miracle happens."

**Interviewer:** "Do you find that young people that you see now are aware of that, that it's in their consciousness?"

**Dr. Franz:** "Yes. ... I think in a very dangerous way, namely in a way of giving up and running away into a fantasy world. You know when you study science fiction, you see there's always the fantasy of escaping to some other planet and begin anew again, which means give up the battle on this Earth—consider it hopeless and give up. I think one shouldn't give up. ... If we would reflect more, that's where reflection comes in. Jung never thought that we might do better than just possibly sneak around the corner with not too big a catastrophe. When I saw him last, he had also a vision while I was with him. He said, 'I see enormous stretches devastated, enormous stretches of the Earth.' "

There is a lot of insight packed into this short interview in relationship to sustainability. First, there is the idea that we can cling to a ridiculous [fantasy of inhabiting Mars](#). You only have to Google [the impracticalities](#) of human colonization of Mars to realize how ludicrous it is. It would

**Environmental degradation poses an even greater risk than COVID-19 to economic growth.**



be much easier and cheaper to colonize and inhabit Antarctica than Mars. I guess it's a fun fantasy for some. But I would prefer to keep my feet planted firmly on Earth and take action based on our empirical reality—that is, take concrete steps for improvement supported by verifiable environmental science.

A second insight is the vision of large stretches of the Earth being uninhabitable, the desertification that climate science also predicts as a potential outcome of our unsustainable behavior. If we are going to be responsible, we have to address the negative, to see [the worse-case scenario](#) for what it is.

Another topic Dr. Franz addresses is the loss of biodiversity. A recent [UN report](#) found that "around 1 million animal and plant species are now threatened with extinction, many within decades, more than

ever before in human history." Dr. Franz was shaming us, in a way, for not waking up to this reality, to the reality that all of the life we see took billions of years to evolve (actually the Earth is only 4.5 billion years old) and, through our ignorance and greed—and our current lack of action—we are foolishly willing to throw it all away.

We live with institutional structures and public policy that make it easier for us to turn a blind eye to the potential self-inflicted damage. In many respects, it's built into the corporate system—CEOs have a fiduciary responsibility to maximize profit for shareholders in any legal way they can. We'll have to change that, too, we'll have to look toward the Sustainable Development Goals and build them into governmental and internal corporate rules.

The Planetary Boundaries model of the Sustainability Development Goals places environmental sustainability as the foundation of social and economic sustainability. Without a healthy physical environment, widespread social well-being and economic stability are impossible.

The last insight here is the idea that we might only just sneak around the corner, barely getting by without destroying civilization and the life on our planet upon which we so depend. The UN Secretary General, António Guterres, [has warned](#) that we are "approaching the point of no return" and that "[w]e must act decisively to protect our planet from both the coronavirus and the existential threat of climate disruption." Already 2020 is showing [dangerously high temperatures](#), with [January the hottest on record](#), forest fires in Poland and Ukraine, flooding in Ecuador, Iran, Afghanistan and Pakistan and [record cold temperatures](#) in the United States. The climate crisis is not going away. It's as if we are so used to Hollywood endings, in which the superhero saves the planet only at the very last moment, that we are collectively actualizing that story for ourselves. We've got to move decisively to adjust our society toward a sustainable future, but it starts with introspection.



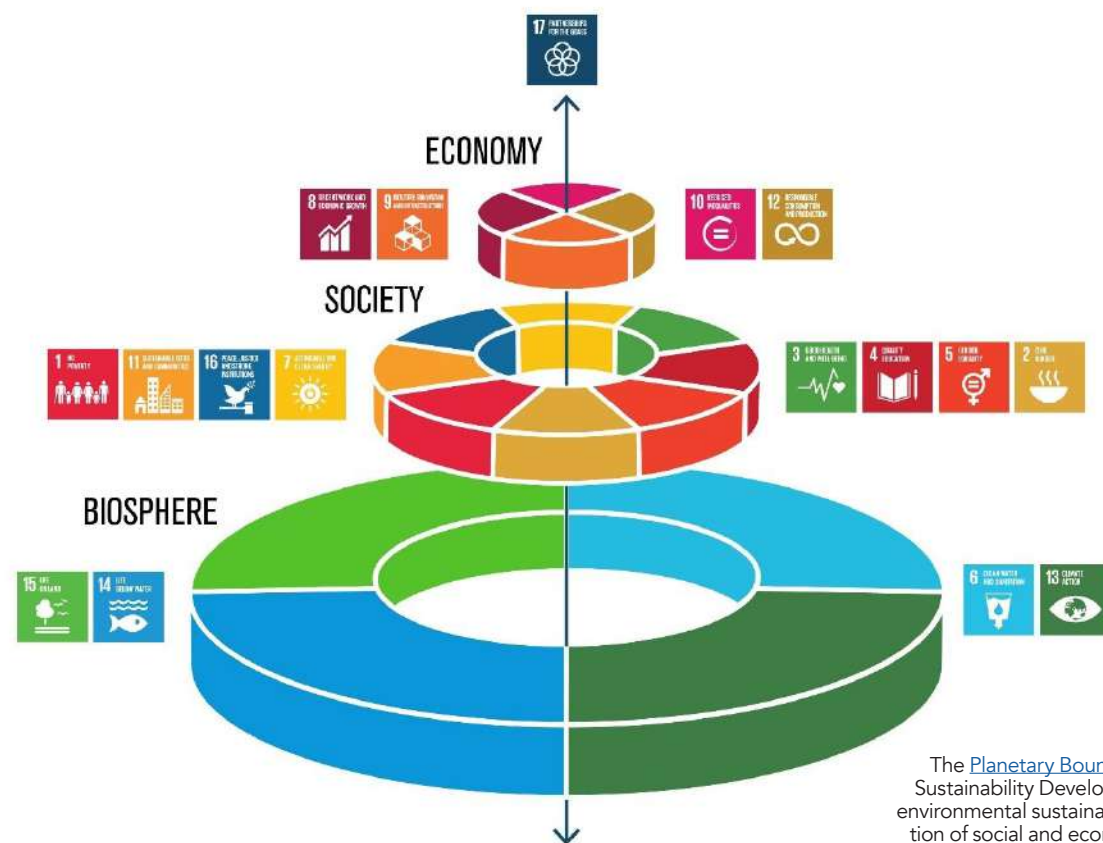
### Insight 3: The Environment, Human Health & Business Security Are Interconnected

This pandemic [has reduced global emissions](#) by as much as 2.6 billion metric tons, about 8% of total annual global emissions. That much most people already know. But [a recent study](#) by the University of Harvard's T.H. Chan School of Public Health found that in the United States there is a direct correlation between higher air pollution rates and COVID-19 deaths. Small increases "in long-term exposure to PM2.5 [fine particle matter] leads to a large increase in the COVID-19 death rate." Similarly, [a study](#) by the Centre for Research on Energy and Clean Air (CREA) found that the COVID-19 reductions in air pollution will lead to 11,000 fewer premature deaths in Europe.

The global reduction in air pollutants, by reducing death and illness, also reduces the long-term burden on health care systems. It has benefits for business as well, as worktime losses due to illness are diminished and productivity increases. All of this combined tells us something that we at Sphera have known for a long time: sustainability improvements make good business sense. Health, safety and the environment are integrally bound together—they complement and support one another when we do the right thing.

"But the beauty of all the life, to think that the billions and billions and billions of years of evolution to build up the plants and the animals and the whole beauty of nature and that man would go and destroyed it all, I mean that all life might go from the planet."

— Dr. Marie Louise von Franz, analytical psychologist



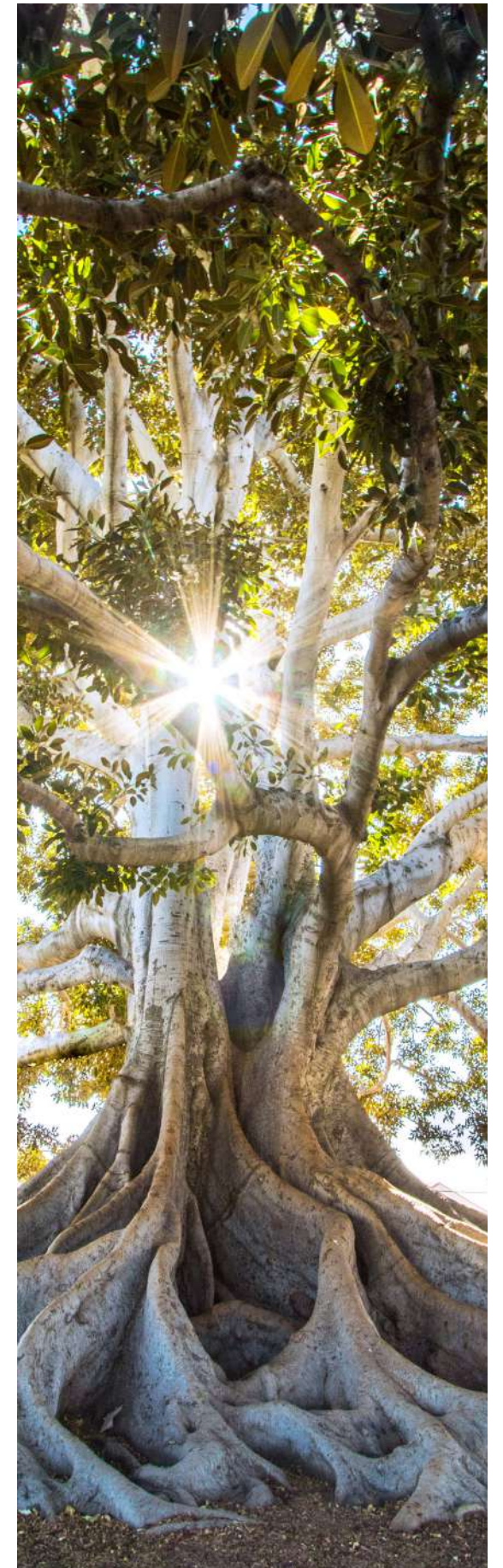
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Without a doubt, the more sustainable we are, the better prepared we will be to reduce the impact of future pandemics. [According to the OECD](#), "Climate change, water pollution and the drivers of biodiversity loss, such as deforestation and illegal wildlife trade, may increase the risk of further pandemics, such as vector-borne or water-borne infections. Outdoor air pollution results in 4.2 million premature deaths a year, including through respiratory diseases, and reduces the environmental health of communities." By now it should be clear that our social and human welfare depend on a healthy environment.

But on the social level, we need to dig even deeper. We need to examine who is most affected by environmental degradation in relationship to such pandemics, the demographic side of all of this, the social costs. Low-income communities are among [those hardest hit](#). For example, the coronavirus has disproportionately hit the African American population in the United States, including 33% of those hospitalized, despite African Americans only making up 13% of the total U.S. population. In Chicago, where our headquarters is located, African Americans make up [68% of all deaths](#) resulting from COVID-19. Currently, the Navajo Nation has [the highest COVID-19 infection rate](#) in the United States. The poorest and most vulnerable among us, those without access to testing, without access to sufficient quality healthcare, those living in crowded, densely populated areas, are most likely to both contract and die from COVID-19 and future pandemics. Governments that wish to tackle social sustainability need to examine which groups are disproportionately affected by global crises and take countermeasures to prevent future threats.

So far, we have not seen disproportionate death rates of people in the global south and economically poorer countries, but as [one article shows](#), there are many factors involved, such as the comparatively younger age of most of those living in Africa and South America, the fact that winter is only now hitting the southern hemisphere and that a lot of people have spent the past five months outdoors in less confined spaces in those southern countries. All of this seems to be shifting now, as Brazil's outbreak may [potentially surpass](#) that of the United States.

COVID-19, as an infectious disease, represents one of 10 of the top risks in terms of impact reported by the World Economic Forum's [Global Risk Report](#), the loss of biodiversity being another. "Although the world's 7.6 billion people represent only 0.01% of all living things by weight, humanity has already caused the loss of 83% of all wild mammals and half of all plants. The current rate of extinction is tens to hundreds of times higher than the average over the past 10 million years—and it is accelerating."





Also according to the Global Risks Report, “[f]or the first time in the survey’s 10-year outlook, the top five global risks in terms of likelihood are all environmental.” You don’t need an MBA in business to know what that means for commerce—environmental sustainability needs to be at the top of the agenda for risk reduction. All companies need to move decisively to counter the environmental crisis.

COVID-19 has taught us that we are one planet, one human species and that we are fundamentally interdependent. Business activities and governmental policy need to align with human and environmental well-being if we are to actualize a just and sustainable future for ourselves and generations to come.

### Insight 4: Digitization Reduces Emissions & Saves Time

Many companies have now learned that employees can work just as effectively from home as they do in the office. A recent example is [Twitter’s announcement](#) that their employees can work from home indefinitely, even after the pandemic ends. Video conferencing saves money and time and can sometimes reduce stress, especially if the alternative involves a difficult or time-consuming commute.

The ease of videoconferencing over the past months has displayed the inefficiency of traveling to meetings in another city, region and country. Of course, office workers will still meet in person and work together, but COVID-19 has established a widespread recognition of the cost and time savings connected with less travel. This may open new flexibility in the workplace for many businesses.

Working from home through virtual meetings does reduce emissions, but it doesn’t eliminate them. [Electricity use in households increased](#). Our domestic experience also added greater demand for other electronics, such as gaming and online entertainment, and that too has an impact that we need to quantify and reduce. See our [blog](#) and videos on the sustainability of electronics.

Certainly, the overall emissions reductions are a move in the right direction. In the near future, some businesses will likely consider closing their offices to save money and time as a result of their positive experiences during the pandemic.



Yet the direct environmental impact caused by COVID-19 has not been all positive. [Plastic and rubber waste](#) has increased dramatically with all the manufacturing of face masks, gloves and other protective gear. Here, too, we have a lot to say [about the topic](#). But perhaps the most important point is that when companies transform their activities, they need to remain vigilant of the dangers of shifting burdens from one negative environmental impact to another. Yes, let’s use technology to become more efficient and reduce emissions, but let’s do it intelligently, using industry-specific data as the basis for our decisions.

### Insight 5: Global Supply Chains Won’t Change That Much; We Need Innovation

It seems everywhere in the media, we keep hearing and reading that COVID-19 will result in the shortening of global supply chains. Beth Gardner [makes the claim](#) that “many nations and companies may be anxious to reduce their vulnerability to highly globalized supply networks” by turning to local manufacturers. [Others suggest](#) that “companies do not just need suppliers outside China. They need to keep their options of suppliers more flexible, even if doing so raises costs and reduces efficiency.” But according to Cambridge University economist Dr. Ha-Joon Chang, all of this hype is a bit exaggerated. The reality is, “many branches of manufacturing are highly automated these days, and therefore do not need radical restructuring due to the social distancing required by COVID-19.” China’s suppliers are up and running again. Yes, there were delays, but did such delays cause any actual long-term problems for manufacturing? Not much. It was the sudden drop in demand, not in supply, that caused and will continue to cause the real challenge for business. To abruptly switch to local



suppliers or put in a lot of effort to increase local manufacturing would just be too cost prohibitive, according to Chang.

[For more information, [listen](#) to Dr. Chang’s recent podcast with RSA.]

The industries hardest hit by COVID-19 [have been services](#), including restaurants, hospitality, events and performing arts and travel. These are industries that require people to travel or congregate together, and, unfortunately, in the United States, more than [80% of those directly affected](#) are low-wage earners. So recovery will be difficult both for the industries and the individuals involved. On the retail side of things, however, technological advancements in [distributed manufacturing](#), for example, may make substantial gains for sustainability if done in a holistic way, taking into consideration the multifaceted nature of comparative analysis in environmental sustainability.

We’ve seen companies taking sustainability measures without the correct data, without taking into consideration the wide variety of factors and without thoroughly rethinking their business models and the kinds of products they provide. As with a lack of accurate COVID-19 testing data in certain countries, so too erroneous data in sustainability ensures inaccurate assessments and actions taken that don’t lead to the desired outcomes. But with the correct data, companies can rethink how their businesses might look if they try to deliver the same value, using far less material and energy or even by omitting a physical product altogether. It is this kind of innovation, based on accurate data and creative thinking, that will make the true shift toward a circular economy and a sustainable future.

### Insight 6: Fossil Fuel Producers Need to Lower Their Carbon Footprints

Oil prices, already decimated by the [Russian Saudi oil price war](#), have now dropped dramatically because of the reduction in demand as a result of the COVID-19 pandemic. In fact, they have dropped into a [negative balance](#). And as with cigarette companies before them, fossil fuel energy suppliers must already see the writing on the wall, with coal, oil & gas becoming greater and greater [investment risks](#).

Of course, the drastic drop in demand will be temporary. It will bounce back eventually. The global demand for energy is still high. And we don’t yet have nearly enough capacity in renewables—there is still a lot of infrastructure for governments and companies to build before we can transition away from fossil-based fuels entirely. But renewables are going to make up an increasingly larger percentage of that demand, and carbon taxes—the most efficient method for bringing global warming under control according to a [report](#) by the International Monetary Fund—are [on the horizon](#).

There is, of course, another reason for fossil fuel producers, and industries that depend heavily on fossil fuels for their energy, to be worried. Greta Thunberg’s generation, Gen Z, not only makes up the largest global generation in human history, it will come into adulthood within this decade. These young people will soon embody the largest buying power. They also are a generation that will now be confronted with staggering unemployment and a general lack of economic opportunities, the inevitable consequence of our response to COVID-19. Companies that are in the position to do something about their own fossil fuel production and utilization will be turning their backs to this generation if they fail to transition toward greater sustainability. They will also be placing their own economic security in jeopardy—they will face levels of risk like never before—because Gen Z is not as tolerant of inaction on the environment as other generations have been.



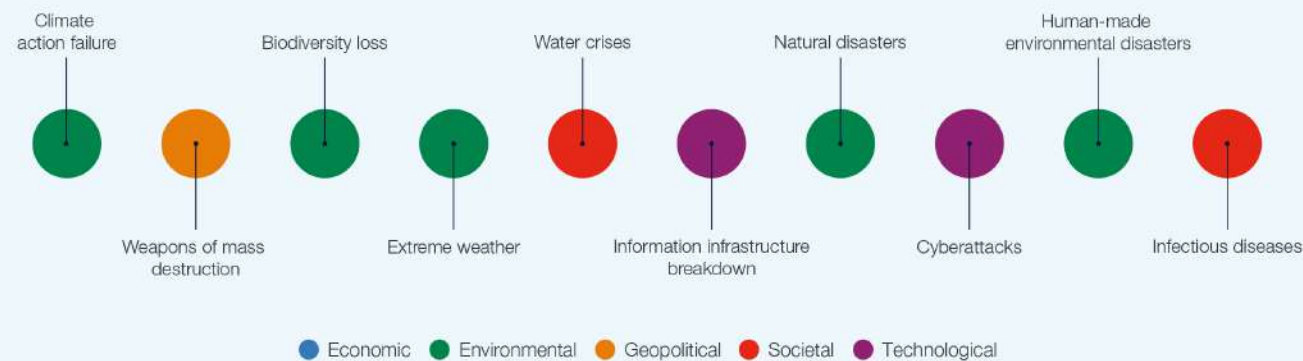


## TOP 10 RISKS OVER THE NEXT 10 YEARS

### Long-Term Risk Outlook: Impact



#### Multistakeholders



Global Risks Report 2020

Infectious diseases and five environmental risks are among those that threaten to have the greatest impact globally.

Fossil fuel companies are already investing a lot more into Carbon Capture and Utilization (CCU) and Carbon Capture & Storage (CCS) among other technologies. This reduces the carbon quantity in the atmosphere. Without this additional effort on the proper scale, however, countries won't be able to meet emissions reductions goals set in the [Paris Agreement](#). And there will be severe financial consequences if they fail to work in this direction, as the real cost of these companies' products and activities—that is, their carbon footprints—will be increasingly tied to monetary fees, both through direct carbon taxation and through various forms of regulation and litigation. Beyond carbon capture approaches, these companies should diversify into renewables and other energy technologies, such as hydrogen or Power-to-X (PtX) fuels.

### Insight 7: Government Action Is Critical to Sustainability Development

Governments that link economic recovery activities to environmental sustainability are likely to win out in the context of the environmental crises, because they will have developed the technology and infrastructure to increase

prevention and handle mitigation. Many governments and politicians are already [advocating for a green recovery](#).

The European Union's approach may become the model transitional policy. In fact, the European Union is moving full force into [the European Green Deal](#), a broad set of policies that will have a profound impact not only on all of Europe, but also the entire world. Countries within the EU and, importantly, countries that import products into the EU, will face carbon pricing. The European Commission has included in the European Green Deal [“a carbon border adjustment mechanism](#), for selected sectors, to reduce the risk of carbon leakage.” That means that pricing for imported goods will reflect the carbon impact those goods have on the environment. Foreign companies wishing to export to the EU, yet do not adhere to the EU's high sustainability standards, will end up paying additional fees, making their products less price-competitive with the more sustainable European alternatives. This will have a reverberating effect throughout the world because, to meet the the EU requirements, companies are likely to make the same, more sustainable changes to their products for all geographical regions, transforming the global sustainability landscape.

The European Union is also planning to implement tax reforms that create a just transition to a green economy. “At [the] national level, the European Green Deal will create the context for broad-based tax reforms, removing subsidies for fossil fuels, shifting the tax burden from labor to pollution, and taking into account social considerations.”

As nations outside of the EU attempt to prop up their failing economies, they can go one of two ways. They can either loosen sustainability regulations, as China did in response to the 2008 recession, or they can tie their bailouts and governmental injections

of capital to sustainability initiatives and long-term policies, creating incentives for companies to transform the way they do business. COVID-19 is like [“a stress test for corporate social responsibility.”](#) Countries that loosen their environmental regulations in response will fail the stress test and will be positioning their populations and economies for future disaster.

The other way governments can go is as has been done in the United States. The \$2 trillion bailout of farming, small business, airline, tourism and hospitality industries [did not link](#) those loans, grants and tax incentives to sustainability measures, such as renewable energy and sustainable infrastructure. Environmental regulation in the United States was already retracting between 2006 and 2018, reducing Environmental Protection Agency inspections by a third, and [compliance there has declined](#). This does not bode well for America's ability to handle current and future environmental risk. As a result, U.S. companies are going to be in a clear disadvantage to their European counterparts.

But there are great governmental examples out there of using COVID-19 for a positive transformation. Jacinda Ardern, the prime minister of New Zealand, has released a budget that [places well-being above profit](#), prioritizing five areas: “improving mental health, reducing child poverty, addressing the inequalities faced by indigenous Maori and Pacific Islanders, thriving in a digital age, and transitioning to a low-emission, sustainable economy.” That is a remarkable governmental transformation, moving away from measuring national progress through gross domestic product. Amsterdam is launching [a post-COVID-19 response](#) that secures everyone's basic needs, prioritizes a sustainable planet and pushes the city toward a circular economy.

In Europe, Sphera is involved in the development of the Product Environmental Footprint (PEF), which will require all B2B and B2C products sold within the EU to have labels on them that indicate the environmental sustainability of those products in comparison to other similar products. This new regulation, which is likely to be in force by 2024, will greatly increase the sustainability information available to consumers and businesses. People will be able to choose the most environmentally friendly products when, for example, they purchase goods in a supermarket.

At this point, sustainability is on the strategic agenda for many governments. Companies within countries that are not supportive of a green recovery will find themselves coming out of COVID-19 trying to catch up with those companies that have the advantage of strong environmental public policy support.



### Insight 8: Global Cooperation Is Critical to Sustainability Success

Just as with ideas, viruses spread quickly. Clearly, globalization can be a risk to public health, but it is also a solution to many of the world's problems. It is clear that more global cooperation is needed if we are going to tackle our international challenges. Our response to the pandemic has reminded us that a global existential crisis cannot be solved by individual action alone, but requires cooperative action, cooperation between individuals, governments, institutions and businesses. The rapid spread of the virus showed everyone how interconnected we all really are.

This observation can lead us to understand how fairness, cooperation and collective social behavior play just as much into success as does competition. It is easy to see how cooperation within a business leads to success. Certainly, competition between businesses can help push companies toward achieving excellence, but fundamentally, cooperation is a part of our DNA. We are social animals, and like other social species, our survival in small groups was entirely dependent on our ability to work together. So it has been in our response to COVID-19, and so it will be in bringing an end to the environmental crisis.



Who have been the key people involved in handling this pandemic? It isn't top managers or politicians or lawyers or celebrities. It has been the nurses, the doctors, the supermarket check-out people, the EMTs and firefighters and police officers, the water works and power supply engineers—people who have literally risked their lives to respond to this situation. Similarly, environmental scientists, policy-makers, business stakeholders, activists, researchers and innovators are on the frontline of the fight against environmental degradation.

A lot of people in the environmental community argue that public policy is the key to a sustainable transformation. Ultimately, that may very well be true. But companies can act decisively without the framework of public policy and regulation. They can begin to see their supply chains and competition as potential cooperative partners in the fight to save life on this planet. It makes good business sense to rethink supply chains and our relationships with competitors, to turn away from competing and toward a shared economy.

The old way of thinking in manufacturing always involved striving for greater efficiencies, such as by creating smarter take-back systems, and beating out the competition. But now, companies are thinking about the advantages of cooperative business models, such as collective take-back systems in which multiple businesses can source a company's secondary resources. This implies communicating with competitors to identify what materials are available and which materials are needed.

Such increased communication along multiple value chains can work for government agencies as well. If a city is looking for a new public bus fleet, they might ask one producer to provide them with the buses for a particular bus route—one which has a lot of hills, for example—while asking another to provide the buses for another line with a comparatively flat route. This cooperative approach will yield overall greater sustainability outcomes, because it will be based on relevant data derived from the supply chain and Life Cycle Assessment—manufacturing, use and end-of-life stages of a product or process.

Several of our competitors, for example, use Sphera's [environmental sustainability software](#) and our [industry databases](#). We would rather have competitors use our robust solutions than for them to use inaccurate data in their calculations for their customers—the drive toward greater sustainability is simply too important for companies to be competing all the time.



The same should be true for companies' value chains. If we look at the auto industry, a good example is the cooperation between Audi and Hydro for CO<sub>2</sub> reductions. Together, they are working toward achieving carbon neutrality by 2050. They implemented a [joint project](#) for sustainable aluminum along their entire value chain, from extraction to manufacturing and retrieval. The idea is to work toward sustainable innovation in a mutually supportive manner. Another example is the [Daimler Supplier Network](#), through which they work to make sure their suppliers are delivering sustainable solutions in accordance with ambitious sustainability goals in part through supplier training sessions and an online educational portal for their suppliers.

The COVID-19 pandemic has shown the level of international cooperation that is necessary for tackling a global crisis. It has given and will continue to give us insights, both through our failures and our successes. We need to take these insights and use them to push a global sustainability agenda with new cooperative business models. Society will have to fundamentally transform its orientation away from a focus on competition and the consumption of material things and toward a focus on cooperatively meeting the needs of all life on our planet, not just those of humanity.

## Insight 9: Shaping Public Debate Is Decisive for Our Sustainable Future

We have seen the disastrous COVID-19 outcomes for countries with leaders who either fail to properly inform the public or [mislead them with misinformation](#). The more outrageous the disinformation outbursts, the faster they spread—and the faster the virus has spread where people took such claims as real. With the dangers of the environmental crisis, we face similar disinformation challenges.

Large companies, governments, industry associations and other

major organizations have the power to shape public discourse on the direction the world should take in the wake of the pandemic and the foreseeable economic depression. Those sympathetic to environmental sustainability will need to use their marketing power to direct the public debate toward greater sustainability. And it's not just a matter of advocating to be more green. They will need to show all stakeholders, as Sphera has tried to do, that environmental sustainability can actually transform the future for the better. Accurate information can help reorient businesses away from the goal of short-term profit maximization toward the more profitable goal (in the long-term) of providing for people's needs in a way that is symbiotically in alignment with nature.

Through lobbying and other political activities, companies that are fixated on their own profits have tried to fight against sustainability. But in doing so, they continue to threaten their own license to operate. I can imagine a time in which most institutions will be held accountable for their actions (and their inaction) with regard to environmental degradation.

For now, companies and individuals still have the opportunity to voluntarily turn things around. Even companies that greenwash are unknowingly moving sustainability forward because, through their marketing of untruths about how green their own products and operations are, they are making consumers even more aware of the seriousness of the environmental crisis. Slowly, governments, regulatory bodies and consumers are becoming more sustainability-savvy. [Greenwashers](#) will have to transform their activities or be driven out of the market—and soon.

## Conclusions

We hear of rising environmental dangers almost on a daily basis. Most of the western United States [is moving into a megadrought](#) due to climate change, a drought the severity of which has not been seen in the region for 1,200 years. There are already shifts in the gulf stream that have led to the [loss of 600 billion tons of ice](#) in Greenland. If the entire Greenland ice cap melts, sea levels will rise 7 meters/23 feet globally, endangering many of the world's coastal regions and cities. In my hometown of Anchorage, Alaska, my friends keep telling me that, in recent years, the snow often melts in the middle of winter. No snow in winter in Alaska? In fact, officials have even had [to move the famous Iditarod dogsledding race](#), which I remember so fondly as a child, to Fairbanks, a town in Alaska's colder interior, because of a lack of snowfall. People are becoming more and more aware that something is

tremendously wrong with the environment.

Of course, the environmental crisis is not the only life-threatening crisis on the immediate horizon. The threat of superbug infections and the [dire lack of antibiotics](#), for one, is also a serious threat. It is predicted that by 2050, [the largest killer will be infection](#). Already today, [more than 160,000 people are dying annually](#) of antibiotic-resistant superbugs. These and other global threats are serious and need to be tackled along with future pandemics and the threat of environmental catastrophe. We are capable of facing these problems all at once, but it will require greater awareness and more holistic approaches, not isolated solutions.

COVID-19 has, in some ways, been a setback for environmental sustainability. The [postponement of the UN's COP26](#) in Glasgow is a delay the world can't really afford. As with Sphera's successful [think 2020](#) sustainability symposium, they should have just held the conference virtually. It was an opportunity for countries to revisit and renew their dedication to the [Nationally Determined Contributions](#) as outlined in the Paris Agreement. Many alternative clean-energy projects have also been [temporarily delayed](#). For some of us working in environmental sustainability, these setbacks are among many others that give us a sense that we are simply not moving fast enough.

The economic conditions that result from the COVID-19 pandemic may very well compound our collective sense of frustration. The pandemic will have a lasting effect on all of humanity, business and sustainability. The way society is structured, including the distribution of wealth and the impacts on the environment, are likely to change, giving rise to drastic political shifts, as human misery increases. COVID-19 has forced companies and governments to recognize both the seriousness of global risks and the necessity for greater global cooperation. We have to empower businesses to fight against the next big risk to global security, to prevent ourselves from going beyond the tipping point.

On a more personal note, one of the largest lessons from all of this may be that we don't actually need so much stuff, we don't need to consume as much as we were consuming before. We have learned that we can survive just fine with less. We also don't actually need to travel so much. We are capable of saving our time through a reduction in commuting, saving our money by consuming less and saving ourselves by giving preference to spending time with living beings rather than material things.

Sphera is here to help businesses, organizations and governments take the necessary steps toward a sustainable future, basing environmental decisions and designs on science and engineering, thereby preventing and mitigating the many risks associated with the pending environmental crisis. We have to take decisive action now, all of us, to reflect on what we can do at home, at work and at school, to make improvements and to recommit to long-term actions that drive us into a sustainable future.



#### ABOUT SPHERA

Sphera is the leading global provider of Integrated Risk Management software and information services with a focus on Environment Health, Safety & Sustainability (EHS&S), Operational Risk Management and Product Stewardship. Sphera has advanced Operational Excellence for more than 30 years, serving companies and customers across the globe to create a safer, more sustainable and productive world.



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