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Risk Management & COVID-19: Organizational Resilience

How do we understand resilience in the context of industrial safety? What are the mechanisms of organizational resilience? What levers should be used? In the following, Jean Pariès, Scientific Director of Icsi-Foncsi shares his thoughts from the Icsi webinar held on April 8, 2021.

How do we understand resilience in the context of industrial safety?

The acclaimed psychoanalyst and neuropsychiatrist, Boris Cyrulnik, has popularized one of the many applications of the **concept of resilience** in the fields of psychology and neuroscience. Resilience refers to the ability to live, to succeed, to rebuild oneself after a trauma, and to thrive despite adversity. From this perspective, **the meaning that individuals are able to give to what happens to them is fundamental to overcoming trauma**, as is sharing experience with others or forming social ties.

‘Resilience’, however, is used in many other ways. It is applied to organizations, to society as a whole, and has been extensively used in the context of the COVID-19 crisis. The usage that is

closest to the one we are currently interested in is probably that of the **science of ecology**, in particular, **ecosystems**. Life is the archetypical model, Darwinian evolution. In this context, resilience is quite simply **the ability to survive** despite changes, for example in climate, and despite the huge shocks that can lead to the mass extinction of species.

Although the sources of this resilience are complex, we can draw upon them to understand how, at the level of a company, shocks, destabilization and major ruptures can be better-understood and overcome.

What are the mechanisms of organizational resilience?

I’ll continue with my metaphor of living systems. First, there is the idea that life – and therefore resilience – is **permanently evolving**. What does not evolve disappears. And the notion of evolution connects the following two powerful, and partially contradictory ideas:

1. The first is that of **memory, identity, and invariance**. Neither survival nor evolution are possible if a certain degree of order or organization is not retained. Identity, understood as the awareness of belonging to an

organization is, therefore, a key condition for resilience.

2. The second, paradoxically, is that of **change**. Resilience goes hand-in-hand with diversification, and replication errors. This has been a key topic during the pandemic, as the virus has mutated and new variants have appeared. But vaccines are another very good example: the historical success of vaccine production is largely due to the diverse efforts that have been made around the world. This shows us that a resilient organization constantly generates variants. It is innovative and adaptive.

Then there is **the idea of stress and compensation**. Organizations are under constant pressure to survive. And that’s where safety issues come into play. When organizations are under stress – and this applies to all levels, from the operator to the executive committee – they **compensate for, and permanently absorb, disturbances**. At the same time, these disturbances and their effects are not reflected in performance indicators. And here is where we run into a major problem: this ongoing compensation has its limits. You can reach a point where **compensation mechanisms become saturated**. At that point there is **decompensation**, collapse. And that’s when accidents can happen.

However, for both organizations and individuals, stresses are cumulative. The more you operate at the limit of your capacity, the less margin you have, and the less you can absorb disturbances. **A resilient organization maintains margins, reserves, stocks, and apparently useless redundancies.** A lean organization still holds onto a certain degree of fat. Total optimization is avoided.

Are there weak signals before the decompensation crisis?

The short answer is yes, in general, there are. However, organizations can be poor at exploiting or generating these signals. It is essential to **put in place mechanisms that can detect the small disturbances that precede the big crash.** But there is no generic approach: the best answer is always a function of the business, the activity, the organization, or the context. However, the objective must be met if we want to improve resilience.

What levers can we use to improve organizational resilience?

Some levers are easier to implement than others:

- Generate social ties, shared meaning and develop pride in belonging to the company
- Promote diversity
- Create and manage margins
- Analyze activities and their associated compensations
- Make slowing down or stopping mandatory, when needed

It is clear that it is most difficult to accept those **dimensions of resilience that relate to voluntary sub-optimization.** This can be contrasted with the search for the best-optimized and most efficient operation possible, zero stock, or the 'just-in-time' philosophy we sometimes see in companies. When this happens, we become anti-resilient. Although such a system is extremely efficient and reliable, it will be unable to withstand **unexpected events.** We must therefore **acknowledge**

that we cannot predict everything, and understand that forecasts, models, risk mapping and algorithms may be flawed. Consequently, we must maintain or introduce precautionary principles into the risk management approach, and ask ourselves what happens when **we go beyond the boundaries of the system design.**

While all of these levers support **the capacity to absorb unexpected events,** the approach is not easy to adopt as it goes against the fundamental idea of competition and short-term optimization, which Western civilization has been built upon since the Neolithic Revolution!

What does the future of risk management look like?

One of the biggest challenges in the future is how to combine what we currently call **artificial intelligence with human intelligence** in order to manage and control our societies. As I started by talking about the work of Boris Cyrulnik, I'll return to him. He rightly says, *"modernity is not a factor of psychological adaptation"*. This is illustrated in the domain of safety. The safer our systems are, the more unacceptable the accidents that do occur. The more these systems are automated and reliable, the more extreme the safety requirements become. We have become part of a race, a never-ending spiral between:

- on the one hand, the search for total predetermination, total control, and an absolute rejection of identified vulnerabilities, and, on the other hand,
- a loss of resilience and with it increasing vulnerability to 'black swans', which inexorably creates this quest for the modern Holy Grail.

We could see this situation as a call for a paradigm shift: we need to abandon some illusions, and recognize and accept that there will always be vulnerabilities in order to, paradoxically, better-protect ourselves from them.



For more information

[» Follow the "Risk Management & Covid-19" campaign](#)

Icsi is examining the Covid-19 crisis from the angle of the "health crisis and major risk management". It has launched a new program based on 3 axes: an observatory, discussion about the future, and an international perspective.

[Explore the Risk Management & Covid-19 section of our website.](#)

[» References](#)

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