

Navigating the Unknown

*A practical lifeline for
decision-makers in the dark*

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Terra Incognita

- ① Anticipating**
- ② Detecting**
- ③ Reacting**
- ④ Inventing**
- ⑤ Mobilizing**

Terra Incognita

The most promising words ever written on the maps of human knowledge are Terra Incognita – unknown territory.

Daniel Boorstin, *The Discoverers*¹

The 21st century has violently pushed us beyond traditional management techniques, even in the field of crisis management. Megashocks, systemic meltdowns and confrontations with the unknown are becoming increasingly pressing challenges. "Crisis today," writes philosopher Myriam Revault d'Allonnes, "is characterized by global rupture. [...] We are confronted with an unprecedented level of incertitude that is forcing us to revisit an essential question: that of shaping our future."²

Confronting this unknown territory, which is full of vital threats as well as unprecedented potential, it is clear that our traditional responses and toolboxes no longer suffice. Crisis piloting, which in its purest form orients and engages action, is becoming critical and crucial.

However, in these uncharted waters, the navigational function is pretty much in escheat, suffocated by an ever-increasing accumulation of tools, ensnared by outdated principles and doctrines, deprived of moorings and bearings. Even more worrisome, crisis management itself is constantly being called into question, as if doomed to disappear, or sink into a state of coma. This loss of sense and perspective severely limits our production of intelligence, motivation and means. This kit hopes to provide answers to an essential question: how to navigate the unknown.

We have attempted to provide a short text oriented towards action and not simply observation, which is the stage at which we all too often stop. We hope to challenge the normative step-by-step 'crisis management handbooks'. Rather than providing ready-made solutions, its goal is to pose the vital questions and provide the foundations needed to move forward.

This operational kit, which condenses years of research and field experience in the management and piloting of 'out-of-the-box' crises, is not only designed for leaders but also for citizens eager to rethink their own perspectives, visions and paths. It has been designed around a series of imperatives: anticipating, detecting, reacting, inventing and mobilizing. Each of these imperatives is explored according to three dimensions: *challenges*, obliging us to redefine the stakes; *pitfalls*, when confronted with shock and the unknown; and lastly *leads*, which can hopefully provide crisis management today with a new grammar of practice. ●

1. Daniel Boorstin (1983), *The Discoverers*, Vintage Books, New York, p. xv-xvi.

2. Myriam Revault d'Allonnes, *La Crise sans fin, Essai sur l'expérience moderne du temps*, Seuil, Paris, 2012, p. 10, 15.

1 Anticipating

The real management task is that of handling the exceptions [...], of coping with and even using unpredictability, inconsistency, instability, irregularity, and disorder.

Ralf Stacey³

Have beliefs and communicate them. Set an example. Prepare relentlessly.

Rudolf Giuliani⁴

The first requirement is to really broaden our horizons and visions, so as to be in step with the new challenges we face, to avoid their inherent pitfalls and to create scope for piloting endeavours.

Challenges

Risks beyond our frames of reference. In every domain (ecology, technology, economy, society, conflicts) fundamental theories are being challenged. We have transitioned from risks limited in severity and low in probability to mega-shocks. Moorings, structures, and fabrics are becoming increasingly fragile.⁵

Illustration : Famine and global climate chaos. The risk of famine on an international scale – not in 30 years' time but quite possibly sooner – due to severe droughts, lack of strategic reserves, overall loss of self-sufficiency and market problems.⁶

The risk of systemic meltdown. Increasingly restrictive interdependencies and the suppression of safeguards for the sake of efficiency have driven us from isolated incidents to globally interconnected vulnerabilities.

Ever increasing rapidity. Emerging technologies and communication tools have pushed us from acceleration to instantaneity, thus overloading our capacity to respond.

Confronting ignorance. Recent evolutions have driven us from marginal uncertainty to complete unknowing. It is no longer a matter of dealing with 'residual anomalies', our paradigms themselves are found wanting.⁷

Illustration : In her analysis of the financial crisis of 2008, Nicole El Karoui, world-renowned specialist and professor of finance, "our models are designed to function in ordinary situations, for reasonable amounts of products sold, in a context of standard activity."⁸

From local glitch to instant global dislocation. As in a super cooled liquid, the slightest shock, the smallest glitch can provoke immediate ripple effects. Usual stabilizers can rapidly mutate into amplifying factors.

3. Ralph Stacey, *Strategic Management & Organizational Dynamics*, Pitman, London, 1996, p. xx.

4. Rudolph W. Giuliani, *Leadership*, Miramax Books, New York, 2002, p. x.

5. Patrick Lagadec, "The Unknown Territory of Mega-Crisis: In Search of Conceptual and Strategic Breakthroughs" in Ira Helsloot, Arjen Boin, Brian Jacobs and Louise K. Comfort, Ed.: *Mega-Crisis: Understanding the Prospects, Nature, Characteristics and Effects of Cataclysmic Events*, Charles Thomas Publisher, Springfield, 2012 (p. 12-24).

6. Hendrick J. Bruins, "Risks to food security – Contingency planning for agri-mega crises," in Ira Helsloot, idem, p. 342-355.

7. Thomas Kuhn, *The Structure of Scientific Revolution*, University of Chicago Press, 1962.

8. Nicole El Karoui, *Le Monde*, samedi 29 mars 2008, p. 13.

From all directions, we are confronted with ‘wicked problems’⁹ layered with complex and interdependent issues, for which it is impossible to isolate the causes, pinpoint specific solutions, or determine the stakes. A well-known expression comes to mind, ‘think out of the box’. Mike Granatt, a world-renowned specialist in crisis management, takes this expression one step further and would have us embrace the idea that ‘there is no box anymore.’¹⁰ The challenge is no longer to overcome certain barriers. There simply are no barriers.

Pitfalls

Incomprehension. We consider all that is beyond our familiar territory as irrational and outside of our responsibility.

Avoidance. We are conspicuously absent when asked to participate in meetings or exercises concerning these issues; or rather, we relish in delivering hollow discourses, calling on outdated principles and brandishing a sense of ‘optimism’ without ever asking the essential questions.

Blockage. We close off all possibility for questioning; those willing to turn a blind eye are favored while those who violate the ‘vow of silence’ are sidelined.

Illustration : The refusal to acknowledge significant risks at a 2007 senior management seminar of a large financial institution. Afterwards, a participant confided, “There is one subject that is simply taboo for top management: subprimes.”

Illustration : The refusal to investigate the vulnerability of the World Trade Center's twin towers prior to 2001: Morgan Stanley's Director of Security clashed with agencies when he asked for a review of the twin towers' risk of destruction. This same Director of Security also imagined the possibility of an airplane laden with explosives, but was again given the brush off, even after a former secret service agent turned consultant had, as early as the 1990s, imagined the scenario of the 1993 underground detonation of a truck loaded with explosives. In the end the Director of Security advised that in the event of an emergency, all bank employees should disregard any instructions issued by the Port Authority.¹¹

Surrender. We have come to accept the age-old excuse, ‘It was simply inconceivable’, as a shield all too easily wielded in situations where everything possible has been done to see nothing, hear nothing, or say nothing.

Blindness. Testing situations sometimes result in reprehensible behaviour, at times when exemplarity is imperative. As Winston Churchill might have said: “You had the choice between the difficulty of dealing with the crisis and the comfort of turning a blind eye. You chose to turn a blind eye and you will be destroyed by the crisis.”

All of this pushes us towards ‘strange defeats,’¹² as epitomized by the events of 1940: they could not have conceived of that war, so they could only lose it.

9. Horst Rittel & Melvin Webber, “Dilemmas in a General Theory of Planning”, *Policy Sciences*, Elsevier, 4, 1973, p. 155-169.

10. Founder and first Head of the Civil Contingencies Secretariat, Cabinet Office, London.

11. Quoted by Amand Ripley, *The Unthinkable – Who survives when disaster strikes, and why*, Crown Publishers, New York, 2008, p. 205.

12. Marc Bloch (1946), *L'Étrange défaite*, Folio histoire, Gallimard, Paris, 1992.

Leads

Commit oneself. To facilitate understanding and action, break from the reflex to retreat and become personally implicated in these unknown territories.

Mobilize around ruptures and vital issues. Free yourself from conventions: bring yourself up to speed on questions not treated engendered by the traditional circuits. Lend these questions your full attention and make them a priority.

Illustration : The breaking with paradigms during the Age of Discovery, when cartographers working for Henry the Navigator (1394-1460) erased all that was false, mythical, or sacrosanct.¹³

Prepare to be surprised. Rather than trying to foresee the unknown, prepare yourself to confront it. Do not try to stave off surprise by amassing plans and tools, but rather prepare for a blank slate. Instead of ready-made responses for each situation, strive to react creatively in uncharted territory.

Learn to navigate the unknown. Take part in workshops designed to prepare participants for 'alien' environments – not necessarily the worst, but the most surprising. Prepare to manage teams and networks in situations where all bearings have been lost.

Illustration : As the mayor of New York City, Rudolf Giuliani participated in a two-day simulation of a major attack on New York in July of 2001. At the end of the meeting, he asked that another exercise be organized on September 12th, 2001. This exercise planned for an evacuation of the crisis center, an action that had to be taken on September 11th.

Build a team and support network. Organize collaborations and forge ties with reliable individuals who will be prepared to confront difficult issues at any moment.

Formulate the challenges. Show that you are aware of the difficulties, that you are not just taking the easy way out. This calls for the investigation of hidden and even 'inconceivable' phenomena, a fundamental step that allows for strategic planning, the building of cohesion and the mobilization of energies.

Certainly, formulating these challenges will be difficult for all parties. It does not entail throwing actors and administrations in at the deep end, or acting irresponsibly regarding questions of national security. Here, as elsewhere, discernment is needed. However, these strict requirements should never be used as an excuse to avoid clarifying the major events for which to prepare. One example is during the Spanish influenza epidemic (1918) when a 'protective' silence intended to 'avoid panic' created an even greater crisis: the erosion of willpower and the inability to take the small actions necessary to survival.

Illustration : The Spanish influenza: "It is fear- accentuated by the refusal to clarify challenges – and not illness that nearly destroyed society. Horror must be made tangible, whatever it may be. Then, and only then, can people dominate and overcome it."¹⁴

Or in the same vein, Churchill's words with regard The Battle of Britain: "It was necessary above all to warn the House and the country of the misfortunes which impended upon us. There is no worse mistake in public leadership than to hold out false hopes soon to be swept away. The British people can face peril or misfortune with fortitude

13. Daniel Boorstin, *op.cit.*, p. 151.

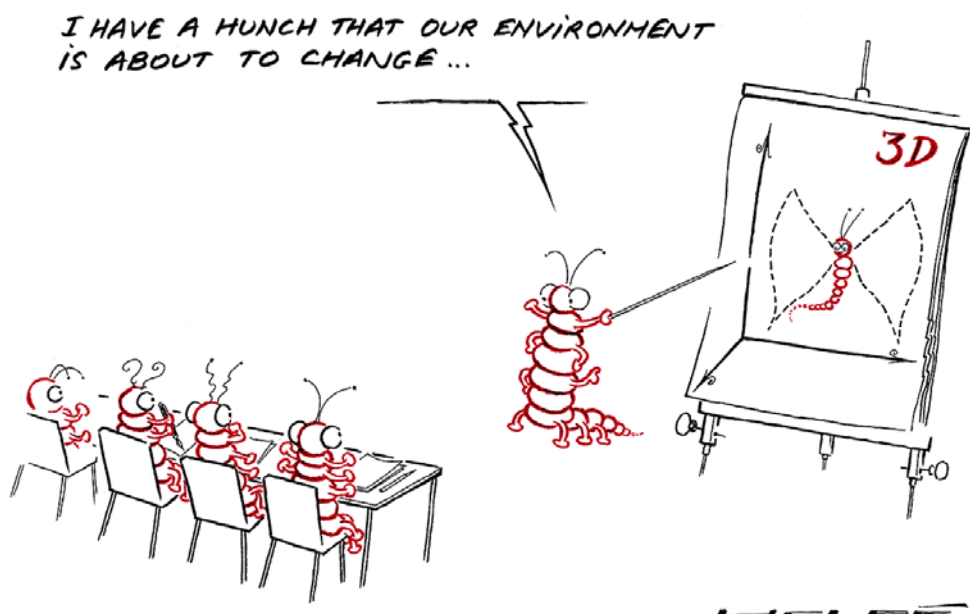
14. John Barry, *The Great Influenza – The Epic Story of the Deadliest Plague in History*, Penguin, New York, 2004, p. 461.

and buoyancy, but they bitterly resent being deceived or finding that those responsible for their affairs are themselves dwelling in a fool's paradise."¹⁵

Make no mistake, this requires leaders to do some demanding self-examination. They must not simply know themselves, but be able to identify their weaknesses and failings such as their relation to power, money, and other individuals.

Illustration : Watergate, "Nixon [...] would have given anything to achieve the adulation that John Kennedy had received. Nixon ascribed the successes of the Kennedy family to technique, not conviction, and he spent hours each week ruminating about the ruthless political tactics and public relations gimmicks that he thought had made the Kennedys so formidable. Nixon was convinced that wiretapping had been a key weapon in the Kennedy arsenal during the campaign of 1960, a view that was doubtlessly shared by others around him. He never offered evidence to that effect. Though there is nothing to show that Nixon ordered the wiretapping of the Democratic National Committee headquarters, the event might have had its origin in that obsession."¹⁶

The key is not the leader's ability to use the available tools, but his or her mental state - lucidity, emotional stability and ability to inspire confidence during periods of rupture. In a turbulent and foreign universe, those who refuse or cannot endure this sort of personal work should be considered as risks with high potential for destruction. A leader in personal difficulty will quickly prove incapable of exemplarity, committing astounding faux pas in the name of deluded good intention. The end of such delusion often marks the beginning of an 'unthinkable' disaster for both the leader and his constituents.



15. Winston S. Churchill, *Memoirs of the Second World War*, An Abridgement of the Six Volumes of The Second World War, Houghton Mifflin Company, Boston, 1959, renewed edition 1987, p. 532.

16. Henry Kissinger, *Years of Upheaval*, Little, Brown & Company, Boston, 1982, p. 1182.

2 Detecting

Every policymaker knew all the facts. [...] The general plan of attack was fairly well understood. What no one believed [...] was that the Arabs would act on it. Our definition of rationality did not take seriously the notion of starting an unwinnable war to restore self-respect. There was no defense against our own preconceptions or those of our allies. [...] The breakdown was not administrative but intellectual.

Henry Kissinger¹⁷

The task is no longer to monitor what we already know, but to prepare ourselves to identify unknown factors that lie beyond our usual grasp.

Challenges

The need to break with the paradigm. The essential challenges are those that escape our usual thinking. Edgar Morin effectively stresses the extreme difficulty of breaking with a paradigm: "Nothing is more difficult than modifying a cornerstone concept, the fundamental idea that shores up the entire intellectual edifice. It is evidently an entire thought system that is turned on its head, transformed, an entire superstructure of ideas that collapses."¹⁸

Illustration : "On September 11, 2001, a handful of hijackers were able to bring an entire nation to a halt, cripple the economy, put the very continuity of the State at risk and inflict more than 3,000 casualties. The only other occasion when the United States suffered comparable losses during a single attack was Pearl Harbor, when the combined fleet of six aircraft carrier battle groups (the Kido Butai) backed by the full power of the Japanese Empire was deployed to accomplish a similar result. In 2001, a cell of 19 hijackers did what only a powerful empire could do in 1941."¹⁹

Looking for aberrant signals. It no longer suffices to look for well-identified signals, nor to detect 'weak signals'. We must seize upon the 'aberrant signals', the previously unidentified 'alien' signals.

Identify unknown dynamics. In highly turbulent environments, it is difficult to differentiate dynamics of slow accumulation from risks of hemorrhage that could unleash at any moment.

Penalizing cultures. Unconventional signals often arrive from unconventional channels and circulate poorly in official channels. Unless surveillance cultures radically change their mindset, alert centers are the last to be informed and the first to refuse non-conformist information (a common cause of consternation for investigative committees).

17. Henry Kissinger, *Years Of Upheaval*, op. cit., pp. 464, 466.

18. Edgar Morin, *Introduction à la pensée complexe*, coll. Essais, Point, Éd. du Seuil, Paris, 2005, p. 76.

19. Rodrigo Nieto-Gómez, "The Power of the Few": A Key Strategic Challenge for the Permanently Disrupted High-Tech Homeland Security Environment", *Homeland Security Affairs*, 7, December 2011. <http://www.hsaj.org/?article=7.1.18>

The impossible task of establishing robust and stable diagnostics. The number of false positives and negatives can run very high. Vigilance must content itself with error, wagering on a combination of analyses and decisions.

Pitfalls

Incomprehension. Messages, especially disturbing ones, are only taken seriously when based on the standard reasoning. Such framing makes detection structurally difficult.

Blockage. The destabilizing potential of information from ‘rogue’ territories is so great that no signals tend to surface. We refrain from looking for troublesome signals. As a senior civil servant in the BBC comedy series *Yes, Prime Minister*²⁰ says with calm cynicism, “You never know what you might find.”

Numbing. More subtly, instead of mobilizing action, the fear of unidentified trace phenomena tends to trigger a reflex to retreat. The more insistent the evidence becomes, the stronger the feelings of destabilization and the effects of numbing.

Viscosity. The smooth flow of information, which should accelerate with growing risk, instead slows down or even ceases. Incoming messages from channels outside of existing reference systems must be verified and confirmed. Growing unease triggers fears of worrying ‘for nothing’. We expect and demand ‘proof’, which is only acknowledged when collected from sanctioned sources and considered convincing when it meets conventional sets of criteria.

Illustration : Katrina (2005), as early as the first night local leaders signaled to Washington that the levees had been breached, and not simply overtopped. Seventy percent of New Orleans was already underwater. Washington’s reaction was to send the army, one day later, for confirmation. Investigative reports underline the fact that even those aware of the breach waited up to four days before admitting that it was not simply overtopping.²¹

Fatal Dynamics. If surveillance systems consent, rightly or wrongly, to avoid worrying upper level management it will inevitably arrive too late on the scene. And if executive decision-makers are those least receptive to ‘abnormal’ information then the gateway to defeat is wide open.

Panic reaction. In order to avoid the risk of no warning, all information is rashly dumped onto the table without filtering or analysis. We swing from ‘Nothing is wrong, everything is under control’ to, ‘Mayday, we are doomed!’

Leads

Underline the strategic importance of off-the-grid surveillance. Blind spots, areas of taboo, radical surprises, odd catalysts, and even unexpected opportunities must be explicitly earmarked as priority surveillance zones.

20. Jonathan Lynn & Anthony Jay, *Yes Prime Minister*, BBC Books, 1986.

21. Xavier Guillohou, Patrick Lagadec, Erwan Lagadec: “Non-Conventional crises and critical infrastructures” Katrina: Report-back Mission, New Orleans, Gulfport, February 19-25, 2006 ; Washington, DC, March 13-15, 2006. EDF, Risk Management Division, July 2006.
<http://www.patricklagadec.net/fr/pdf/EDF-Katrina-Report-31.pdf>

Broaden the surveillance effort. Beyond dedicated teams, make each actor a sensor of, and relay for, questioning. In a shifting, hyper-complex environment, one must considerably increase the number of sensors and the interactions between these sensors, which will in turn increase the speed and the relevance of findings, as well as their interpretation.

Restructure surveillance and alert systems. Encourage teams to ask iconoclastic questions, to examine what is happening on the fringes beyond traditional zones, to be attentive to signals issued from less conventional channels, to be interested in the growth of systemic fragilities and the risks of hemorrhagic triggers, to be wary of vulnerabilities from independent 'hubs' and concealed yet critical nodes and to follow the mutation of societal visions and dynamics. Work to make the most of the emotional unease that often precedes rational analysis²² and on the convergence of signals that might herald unexpected occurrences. Develop rapid exchanges with other surveillance professionals who are creative, reactive and accustomed to this exercise.

Of course, while we must immediately implement the tools and skills necessary to the analysis of digital data, it is important to remember that without a strong sense of direction, the accumulation of information rapidly becomes more of a hindrance than help.

Constantly improve and drive vigilance. Well-prepared and connected teams can avoid being systematically blinded by unconventional signals. They quickly home in on and rectify inaccuracies in hypotheses and interpretations. One must constantly ask: what have we forgotten? What could radically catch us on the wrong foot? What are the pitfalls of our visions and methods?

Illustration : August 14th, June 40, Dien Bien Phu. Deadly attacks often crossed barriers thought to be insurmountable, for example the German invasion via the Ardennes in 1940. Previously, they invaded through Belgium, which at the time was thought inconceivable owing to Belgium's position of neutrality. The vanquished always protest, "But, how could they have dared?!" At Dien Bien Phu: "A sense of astonishment overcame all who were not preoccupied by immediate concerns. Officers and soldiers could not stop pondering this incredible fact: how could the Légion battalion have been overcome so quickly?"²³

Similar feelings of astonishment prevail following great innovations: "How could they have thought so differently?" The same strategy is required for unearthing hidden opportunities: what new combinations will come within reach if only we change our reasoning?

Illustration : Concerning key innovations, consider this model testimony from the CEO of a large insurance group: "When a young executive joins us, I tell him: 'Your mission is first and foremost to use all of your talents and curiosity to explain how an unknown competitor was able to change the rules and capture a significant portion of our profits in just three months. You have two months to do it. Above all, do not stay cooped up here because your inquisitive mind will suffer. And do not look to our competitors, they are the same as us.'" On a similar note ("They did not know it was impossible, so they did it"), the iPhone revolutionized the mobile phone industry. To be compared with a pathetic remark from a French Minister of Posts and Telegraphs in the 1960s, labelling the telephone as "a gadget for lonely women who want to call their lovers."

22. Karl E. Weick et Kathleen M. Sutcliffe, *Managing the Unexpected, Resilient Performance in an Age of Uncertainty*, John Wiley & Sons, 2007, p. 118-125.

23. Pierre Rocolle, *Pourquoi Dien Bien Phu ?*, Flammarion, Paris, 1968, p. 352.

All of this requires initial training that prepares for questioning and collective innovation, not simply the acquisition of ready answers, however excellent they might be. ●



3 Reacting

In highly unstable situations, if there is not a leader and a team of exceptional strength and conviction, nothing happens.

Xavier Guilhou, Patrick Lagadec²⁴

In situations characterized by systemic failures or unexpected turbulence, leaders play a crucial role. Certainly, leaders are not the only actors required to intervene. But if they are absent or incompetent, a successful outcome is highly unlikely.

Challenges

Off-the-scale risks. All that was considered to be impossible, inconceivable, or simply unimaginable (or intolerable) is unleashed. The system loses its energy, its defenses are shattered.

Responding before understanding. It is necessary to intervene, even without solid diagnostics, proof, visions, or action plans.

Loss of meaning, information overload, coagulation of representations. Anxiety instantly reaches extremes owing to overall disorientation, coupled with the Internet's capacity to provoke informational chaos. As in a 'firestorm', the fire feeds on itself.

Illustration : Watergate, "Tawdry revelation was matched by a vile animus. A journalist not known for his friendship to Nixon called me to say he was shocked by the 'bloodlust' surfacing among many of his friends: All they seemed to be able to think of was "get him, get him, get him". As if they were gladiators that wanted to kill."²⁵

The leader is haunted by the observations of an ancient Chinese philosopher. "Is it not here that, if I take a half step in the wrong direction, I will end up a thousand miles astray?"²⁶

Pitfalls

Instant implosion. Suddenly confronted by chaos and void, crisis piloting simply evaporates. Leaders quickly exit the game through rapid burn out, as seen in Fukushima: "Tepco CEO nowhere to be found."²⁷

Denial Reflex. 'It has not yet been proven.' 'We have everything we need to handle it.' The obsession with reassurance, reinforced by the basic need to feel reassured oneself and the belief that we will know what to do once we identify the danger, rapidly drives us to deny, to dodge, and finally to unravel. First comes confusion, 'Above all, don't expect anything from those in charge, they are even more scared than you!' Or outright

24. Xavier Guilhou et Patrick Lagadec, *La Fin du risque zéro*, Eyrolles, 2002, p. 84.

25. Henry Kissinger, *Years Of Upheaval*, op. cit, p. 122.

26. Quoted by Yehezkel Dror "Fateful Decisions as Fuzzy Gambles With History", *The Jerusalem Journal of International Relations*, vol. 12, 3, 1990, p. 1..

27. Jonathan Soble, "Tepco chief spent a week secluded in office", *Financial Times*, 28 March, 2011.

cynicism, as happened following the CEO of BP's astonishing declarations during the Deep Water Horizon catastrophe off the American coast in 2010.

'Wait and see'. We wait for everything to become clear, until we are forced to act, when taking action no longer poses a risk (as when the debacle has begun). Leaders seem paralyzed, as if waiting for the miracle to come.

Unbridled activism. Feverish activity rapidly translates into pure loss. Purely technical answers, organizational smoke screens and hysterical communication burn out, hastily made decisions, are followed by sterile backpedaling. Overreaction is no better than under reaction.

Dangerous wildcards. The leader ventures outside of his or her usual territory, decisions are adopted 'elsewhere', while their consequences affect headless crisis management cells. The 'out-of-the-blue' option disintegrates no sooner than applied, and brings down with it the last traces of cohesion and hope.

Capitulation. This is a tendency of many officials and experts who, for an indefinite period of time, assure that all is under control, and who change tack brutally, claiming all is lost.

Subject to so many pressures and contradictions, an unprepared leader risks paralysis, evanescence, physical flight, base authoritarianism and slipshod decisions often, for want of reflection, by doing the very thing that should be avoided.

Illustration : The initial measures taken during the financial crisis in Cyprus (March 2013), resulting in the spoliation of small investors – a weapon of mass destruction that triggered a loss of confidence across Europe.

So many failures trigger a loss of systemic cohesion and ultimately an overall collapse of trust.

Leads

Addressing risks of hemorrhage. Act immediately in order to avoid a fatal conclusion. Piloting must engage the situation in a determined and forceful manner, with complete honesty about the seriousness of the challenges.

Illustration : The Chernobyl cloud syndrome, the ritual preamble, repeated during the 2008 financial crisis: "The crisis is behind us." "France is not affected." "the Paris stock exchange is not Wall Street." "Our fundamentals are solid, in three days it will be over."

Illustration: 1940, Winston Churchill: "Athens had been conquered by Sparta. The Cartaginians made a forlorn resistance to Rome. Not seldom in the annals of the past – and how much more often in tragedies never recorded or long-forgotten – had brave, proud, easy-going states, and even entire races, been wiped out, so that only their names or even no mention of them remains. [But] it was nearly a thousand years since Britain had seen the fires of a foreign camp on English soil."²⁸

Rapidly sketch a few basic lifelines. Stop for a moment to fix provisional lifelines using several criteria: respect the cardinal requirements in terms of value while being wary of dead ends, provocations, and destructive policies.

Illustration : Riots in France in May 1968, the Paris Chief of Police at that time: "Seeing the turn of events, and knowing that from here on out anything could happen, I adopted a rule of conduct that greatly helped

28. Winston S. Churchill, *The Second World War*, Vol. 2, *Their Finest Hour*, Mariner Books, Houghton Mifflin Company, Boston, 1949, p. 227.

during the following weeks. I knew that we needed to get out of the chaos without losing our footing. I had not wanted to be Chief of Police, but as I was the one in charge, it was out of the question that I ignore what was happening in the streets, namely the riots. That simple and firm line of conduct reassured me as soon as I formulated it. The next challenge was to avoid disorder degenerating into a bloodbath. This was dictated as much by reason as emotion, because I knew that if one day we had to deal with dozens of shooting casualties, lying among debris from burned crates and felled trees, it would herald the beginning of an adventure for which no one could predict the outcome. I held solidly onto both ends of this chain and my behavior was inspired by this double conviction. While it did not completely shelter me from anxiety, it gave me precious serenity during this turbulent time."²⁹

Mobilize a trained ‘rapid³⁰ reflection force’. Clarify the stakes: ‘What are they?’ Identify the pitfalls: ‘What are the key errors to be avoided?’ Map the actors: ‘What are the evolving dynamics between them?’ Brainstorm creative options: ‘What possible initiatives can breathe new life and confidence into the system?’ Ongoing and real time questioning lies at the heart of the process.

The effective use of a rapid reflection force requires a whole new mindset. It means abandoning pre-made checklists and instead developing a quality line of questioning. Managers should no longer be thought of as respondents following a technical and methodological procedure, but rather as drivers of strategic crisis piloting.

Establish a rhythm. Implement dynamic strategies privileging intelligence, creativity, and adaptation to turbulent and unfamiliar landscapes. John Boyd's (1927-1997) method, known as OODA (observation, orientation, decision, action), privileges this movement from observation to action. While getting up to speed with the accelerated nature of the process we can revise our analyses, readjust our decisions and transform our actions. The systematic, rapid, and open character of the process facilitates dovetailing with confusing environments and mutating universes, allowing leaders to find direction.³¹

Illustration : Korean War (1950-53), Boyd was struck by the fact that despite the American's obvious technological superiority, they lost aerial engagements in the Korean War due to the sluggish implementation of the OODA system.³²

Request strategic monitoring charts. Beyond the usual log-books (albeit indispensable, and something that could be considerably improved in the future), leadership needs to continually receive up-to-date summaries: absolute emergencies, key stakes, critical turning points, risks of sudden coagulation, emerging in-depth readings.

Put expertise in its rightful place. Expertise is just a part of decision-making, decisions should never be made based solely on expertise. Leaders must question the limits of expertise: “Who can tell me what, how soon, and with what reliability?” In particular, it is necessary to clarify what is known, what is unknown, and what was impossible to know within the decision-making time frame.

This is equally important in ‘borderline’ situations that put experts to the test, such as the H1N1 virus in 2009 or the eruption of the Icelandic volcano in 2010. Poor crisis management, even in non-extreme situations, can provoke an enduring loss of credibility.

29. Maurice Grimaud, *En mai, fais ce qu'il te plaît*, Stock, Paris, 1977, p. 135-136.

30. Pierre Bérroux, Xavier Guilhou, Patrick Lagadec: "Implementing Rapid Reflection Forces", *Crisis Response*, vol. 3, 2, 2007, pp. 36-37.

Pierre Bérroux, Xavier Guilhou, Patrick Lagadec: "Rapid Reflection Forces put to the reality test", *Crisis Response*, Vol 4, Issue 2, 2008, pp. 38-40.

31. Mike Granatt, James Young, Patrick Lagadec, "The Magellan Initiative", *Crisis Response*, 2009, Vol. 5, 2, pp. 10-11.

32. John R. Boyd, *Destruction and Creation*. U.S. Army Command and General Staff College, 1976.

Driving communication. Hyper communication necessitates increased speed, power, and laterality in information sharing. But the endgame cannot be a race that is impossible to win. It is rather the ability to take a step back and to bring new perspectives and understanding. Lashing out with purely defensive language blanketed by emotion is not management. Communication cannot replace crisis piloting nor become its sole dimension.

Decide and move forward. Leaders must be decisive and draw boundaries in order to maintain overall appearances, coherence and cohesion. Even in the dark, it is important to keep in mind the importance of being able to explain and be held accountable for our decisions, all while retaining as much leeway as possible.

Illustration : The loss of a United States aircraft in North Korea, 1969: “We made no strategic assessment; instead, we bandied technical expedients about. There was no strong White House leadership [...] To manage crises effectively, the agencies and departments involved have to know what the President intends. They must be closely monitored to make certain that diplomatic and military moves dovetail. In this case we lacked both machinery and conception. [...] Coordination was poor; the President never really made up his mind.”³³

Manage others' mistakes. Leaders must be ready to deal with numerous mistakes from a variety of actors. In turbulent environments, serious errors can destroy everything at any moment. It is essential to be on the lookout for the ‘mix-ups’ that can be just as monumental as they are astonishing, while knowing that observers will never come to the conclusion that these were simple mistakes, but rather interpret them as cold and calculated wrongdoings.

This is a necessary road to travel. Yet we must not underestimate the difficulties of crisis piloting. It will require making decisions in a world deeply marked by the undecidable. Faced with situations with no clear cut solutions, navigation can quickly run aground on indecision.



33. Henry Kissinger, *White House Years*, op. cit., p. 321.

4 Inventing

The Athenians are addicted to innovation and known for the swift conception and execution of their designs [...] they are adventurous beyond their power, daring beyond their judgment, and in danger they are sanguine; your wont is to attempt less than is justified by your power, to mistrust even what is sanctioned by your judgment, and to fancy that from danger there is no release.

Thucydides³⁴

Whether it be coming out on top after a megashock, navigating a ravaged landscape or grasping unexpected opportunities, the goal is to go beyond known horizons. Navigating crises calls for exploration and invention.

Challenges

Confronting the unknown. Faced with turbulence and rupture, action should not endeavor to reestablish former conditions, but rather to create new conditions for the future.

Respond to exacerbated expectations. People turn to the leader to learn how to plan for the future while also responding to the immediate: which direction to take, with what vision, using what resources, through what collective process.

Dealing with contradicting demands. Even when the status quo becomes unsustainable, people expect leaders to reaffirm the sacrosanct nature of established principles, to put existing imbalances on hold and remain within the boundaries of existing approaches. However, this does not prevent the same individuals from denouncing leaders for their lack of vision or the irrelevance of traditional toolboxes.

Confronting tragic deadlock. Although past visions and practices are ineffective, we have no other answers, while at the same time everything seems to band together to prevent breakthroughs. We may even wonder if we are in a historic impasse beyond the capacities of current actors, destroying the very idea of piloting.

Illustration : The end of leadership, a risk evoked by a professor at the Kennedy School at Harvard University: "American government and businesses are suffering from a near breakdown in their creative and collaborative capacities to create policies that address the nation's most pressing problems."³⁵

Risk of Implosion. Even if we invest confidence in leaders, those called upon to provide direction and answers yet who fail to innovate, we expect very little from them. That cry that marked the implosion of Argentina in 2001 springs to mind: 'To hell with them all!'

34. Thucydides, *History of the Peloponnesian War*, The First Book.

35. Barbara Kellerman, *The End of Leadership*, Harper Business, Harper Collins, New York, 2012, p. xix.

Pitfalls

Sitting on the fence. Those who are unprepared simply become cogs in the wheel, paralyzed observers when the going gets rough, operators imprisoned by painstaking routine when they should be exploring. Or, on the contrary, the navigator becomes a prisoner of his own dreams, nightmares, and delusions, as phantasmagoric as they are dangerous.

Obstructions. Operational bodies, which sometimes constitute fiefdoms due to their historical importance, are destabilized by the new global conditions that threaten their territory. They tend to enforce status quo action plans by making it known that venturing off the beaten track would be far too risky and may incur their withdrawal or active opposition.

Illustration : President Nixon's first trip to China (1972): "The head of our security detail distinguished himself by requesting a list of subversive individuals in each locality the President was likely to visit. This raised an interesting problem, because in China conservative Republicans would undoubtedly be classed in the same category and if we asked how many Communist sympathizers there were we would get the unsettling answer of 800 million."³⁶

Drowning. A major risk is being incapable of doing anything except attempting to follow the 'jumble' of signals, complications and pitfalls generated by labyrinthine systems, self-promoting experts and scaremongering media eager to fill the void often destroying the very possibility of crisis piloting.

Cynicism. Any prospect of building a shared future is considered 'naïve', 'idealistic' or 'unpragmatic'. The fixation on the absence of 'leadership' becomes immobilizing. We criticize leaders for not being strong, only to then denounce them – if they act – or accuse them of despotism. In the end, we prefer to throw in the towel rather than fight the battle for invention.

Leads

Create a fundamental rupture. Dedicate a part of available energy to the resolute exploration of radically different territories. Hone the capacity for surprise, to change opinions, to think creatively. Update new perspectives and create new action levers that make sense and that can immediately grasp opportunities. This implies the courage to go beyond the comfort zone of the known and to explore the unknown - the essence of a scientific culture. In the words of the philosopher and theologian Maurice Bellet: "If they tell me: 'because the model does not exist, the question does not have meaning', I will answer, 'That is a technician's response, not a scientist's.' Here I am talking about science in action, which risks asking impossible questions."

Overcome barriers claimed to be insurmountable, break with conceptions that are no longer pertinent, and start down a new path as yet uncharted. That necessitates an open and not a defensive attitude, as emphasized by a great prospectivist: "Don't

36. Henry Kissinger, *White House Years*, Little, Brown and Company, Vol. 1, p. 780.

evaluate such people by how often they are right, but by how often they nudge you to look at something in a new way.³⁷

Illustration : The Age of Exploration, “More than half the world was unexplored, unmapped, and misunderstood by the Europeans. Throughout the 16th Century, the calculations and theories of the ancient Greek and Egyptians mathematicians and astronomers served as the basis of cosmology, even as new discoveries undermined time honoured assumptions. To reach his goal, Magellan would have to master both a great Ocean Sea and a sea of ignorance.”³⁸

Encourage collective creativity. Remain attentive to the emergence of new ideas, forces, initiatives, even far from operational centers. Research, protect, and consolidate these trends, which hierarchical cultures tend to fight and nip in the bud. This necessitates confidence in our ability to find new answers, or as Maurice Bellet says: “We are entering a new and highly critical age, and the great challenge will not be finding solutions, but rather having the courage to pose questions in a manner that generates something that is not sterile.”

Enable and support emerging dynamics. Evaluate the current level of turmoil, marked by instantaneous horizontal communication between the various actors involved – from critical networks to individual local players. But also evaluate emerging challenges, such as growing generation gaps, new relationships to information, other forms of trust and resilience that call for different approaches and practices.

Illustration : The spontaneous reaction of New York ferries on September 11th, 2001: several hundred thousand individuals were evacuated by ferries that spontaneously mobilized a large-scale, sea-based, rescue operation – outside of all previously established plans, without consulting authorities and without incident.

Management must greatly develop its resilience: all available resources must be used to prepare grassroots actors to exploit their own resources in the event of a megashock (communication, cash, food resources, etc.). Empowerment and enabling are two strategic axes to introduce and strengthen. Once more, this means breaking with the culture of hierarchical, centralized authority, often more protective of its territory than concerned with the collective security.

Illustration : Hurricane Sandy, October 2012, General Honoré (Ret), a rare hero of the Katrina response fiasco in New Orleans (2005), announced on CNN the need for an exit of the usual ‘command and control’ – “Allow the people to move and go check on their relatives. Police and mayors get too concerned about security. They all want to pull their guns out. They need to put their damn guns away and allow people to go check on their relatives and friends because they know where they live. If they close the cities down, one of the most valuable assets we got, the population, which saves more lives after a disaster, will not be able to get in there and help their relatives and friends. Neighbors saved more people lives in Katrina than the Army ever did. Government isn't good enough to do this. We have to have citizens moving and checking on each other and going and check on their relatives. They cannot close this down because of security. They need to allow people to go check on their friends and to check on their neighbors.”³⁹

Constantly reassess the movement on the ground from vision to inventive action. We could call this ‘Inventive DIY’. It requires thinking and implementing new

37. Peter Schwartz, *The Art of the Long View - Planning for the future in an uncertain world*, Doubleday, New-York, 1991, p. 83.

38. Laurence Bergreen, *Over the Edge of the World – Magellan's Terrifying Circumnavigation of the Globe*, Harper Perennial, New York, 2004, p. 10, 73.

39. General Russel Honoré, CNN's AMANPOUR, Hurricane Sandy Aftermath, Aired October 30, 2012 - 15:00:00 ET, <http://transcripts.cnn.com/TRANSCRIPTS/1210/30/ampr.01.html>

practices, new syntheses that in and of themselves create new visions, new 'feasible innovations' that help us to traverse turbulence and build new trajectories.

Consolidate the cohesion and maintenance of human systems. At each key stage, strive to provide meaning and motivation to all affected individuals by inventively highlighting the best initiatives and acts of courage from a diversity of actors (as was remarkably done by the governor of New Jersey following Sandy⁴⁰).



40. Chris Christie, State Address, January 2013. http://www.nj.com/politics/index.ssf/2013/01/full_text_of_chris_christies_2.html

5 Mobilizing

Leadership in the next generation will be less about position and more about value added; less about hierarchy and more about influencing complex networks – formal and informal; less about control and more about enabling [...] In order to accomplish truly great objectives, leaders must tap into the deepest motivations of those they lead.

Mark Haynes Daniell⁴¹

Genuine crisis piloting enables the greatest number of individuals to cope with a highly turbulent environment, with new dangers and opportunities.

Challenges

Intellectual. It is not only critical to leap into unknown waters, but also to be able to do so without a master plan (which in any case doesn't exist). This is the first and most evident challenge when trying to mobilize people around an issue.

Psychological. Confrontation with the unknown can create deep-seated unease, triggering equally daunting defensive mechanisms, linked (especially in Cartesian cultures) to "the fear of losing the solidity of a system that only holds up because it is flawless."⁴²

Political. The need for shared innovation will be perceived as intolerable by organizational strongholds, different strata of power, clans. Not forgetting the underworld networks that move with ease and flourish remarkably well in their natural habitats – opaque and unmarked territories.

Pitfalls

Gaps. Current university education is designed to facilitate the diffusion of knowledge and results, not to prepare students for exploration. Professional training programs and crisis exercises are designed to transmit doctrines, rules and toolkits. No scope is given to the 'unknown', a core factor of destabilization.

Illustration : Warnings from the Academy of Air and Space, as early as 2002, "Pilot training takes place within a context in which students must constantly conform to well-defined procedures and demonstrate their ability to execute standardized exercises. Nothing is left to chance and the final tests are codified. At no time are pilots tested on their capacity to deal with unexpected situations. Throughout their career, pilots are trained to deal with situations they may never encounter, but they are not trained to face the unexpected."⁴³

Blockage. There are many training courses and corporate universities that are interested in management challenges, mainly intended for 'high-potential' people.

41. Mark Haynes Daniell, *World of Risk – Next Generation Strategy for a Volatile Era*, John Wiley & Sons, Singapour, 2000, p. 295.

42. Nicole Fabre (psychoanalyst), *L'inconscient de Descartes*, Bayard, Paris, 2004, p. 91.

43. French Air and Space Academy, 2002, quoted in the presentation of the conference "Air Transport Pilots Facing the Unexpected"; 29 & 30 Nov. 2011, DGAC - Paris. See "Dealing with Unforeseen Situations in Flight", 2013, http://www.academie-air-espace.com/upload/doc/ressources/Doss37_eng.pdf

However, in fear of being viewed poorly by participants and their superiors, programme organizers are often wary of heading down non-conformist avenues.

Standardization. Despite initially open discourses, we often observe the rapid return to normalized sessions characterized by binders full of reassuring 'Power-Points'. Instructions are wheeled out with alarming consistency: 'Do not worry the leaders.' 'The executives are not ready.' 'Checklists and nothing else.' In the face of the unknown, 'conformist' training rapidly becomes a doorway to debacle. Ironically, faced with the volatility of the unknown, training can become, in and of itself, a strategic pitfall.

Leads

Broaden horizons. We must admit, even if it is not easy, that the centre of gravity now lies beyond the frontiers of the known. In his study *The Discoverers*, Daniel Boorstin writes, "Throughout history, the human spirit has demonstrated an abhorrence of the void, preferring myth to the words 'terra incognita'." ⁴⁴ In response, we must generate positive and creative dynamics, showing that the 'unknown' is in fact a giant playing field where we can bring together our talents.

When the world quakes, such a perspective could be considered mild. But even (and especially) in tragic situations, this perspective comes from a lucid and courageous place, which Myriam Revault d'Allonnes explains with gravity and wisdom: "The absence of 'terra firma' is not only the loss of solid proof, it is also an undetermined future that no past experience can help us fathom. The question is whether we are doomed to drown like unfortunate castaways, clinging to a piece driftwood or a raft, or whether we can transform this being lost at sea into another existential situation: that of accepting to navigate through incertitude and incompleteness and to therein build and repair our ships". ⁴⁵

Redefine the selection of men and women in charge. The ability to work in a volatile environment without points of reference is becoming increasingly crucial. Among the key skills required is the ability to work with others to devise new responses to unfamiliar environments.

Assert new ambitions for training, and make it happen. Although we must cultivate the fundamental skills indispensable to risk management, it is vital to prepare others for highly surprising situations in elusive territories, requiring new perspectives and initiatives. Given the reluctance and obstacles, training for these unfamiliar situations must be directly linked to the highest levels (in the case of companies, the CEO, or at the very least a recognized member of the Executive Committee). If the management entities cannot prove their creativity in such situations, do not hesitate to create new entities and new roadmaps.

Illustration : Major innovations in American public health in the beginning of the 20th century: visionary medical professionals managed to create public health conditions capable of meeting the challenges of the day, starting with Spanish Influenza. "A short time before World War I, individuals wanting to transform American medicine succeeded. They created a system inclined to produce professionals capable of thinking differently, able to question the status quo."

44. Daniel Boorstin, op. cit., p. 133-134.

45. Myriam Revault d'Allonnes, op. cit., p. 186-187.

Aware that they needed to revolutionize public health training in the United States, these pioneers did not hesitate to create a new university – Johns Hopkins in Baltimore – despite reluctance from the Deans of Harvard, Yale and Cornell. “They were determined to create knowledge, and not to simply teach what was held as true.”⁴⁶

Monitor the quality and diversity of the actors involved. Venture beyond the sole preparation of ‘high potentials’ and develop the inventive capacities of the greatest number of actors (using new information sharing techniques and growing social networks). However, increasing the spectrum of involved actors will require reinforcing shared confidence and creativity. It cannot be stressed enough how dangerously destabilizing scornful, haughty, harassing or discriminatory attitudes can become in times of major and widespread crises.

A rupture with current visions becomes a must: actors are neither impediments, nor marginal resources that are useful once everything or almost everything is fixed. In a dislocated world, the inventiveness of actors on the ground is a genuine resource that is largely unexploited.

Transition from management to exploration. The manager – deductive, analytical, theoretical, ordered – must embrace a creative mindset. Planned and structured actions based on past experiences must make room for innovative, intuitive and even effervescent measures. These are the qualities required for all social or commercial entrepreneurs. In a highly volatile environment, they are prerequisites for the appointing and development of leaders.

Illustration : The Transatlantic seminars on unconventional crises held in Washington (2007, 2008, 2009), with the decisive support of Pierre Bérroux (Director of Risk Management at EDF) and conducted by Erwan Lagadec (Center for Transatlantic Relations, SAIS). This series of seminars brought together managers of vital infrastructures from many large corporations, administrations, and non-profit organizations from both sides of the Atlantic, with the goal of exploring unconventional crises. One rule of the seminar: every scenario for which a participant already had an answer was set aside. The principal focus was participative experimentation on a blank slate, in an international trans-sectorial context far from the classic exercises during which each participant presents their own practices and responses.⁴⁷

Make room for new practices. Offer seminars preparing teams for new and volatile universes; develop exercises that allow actors to create non-conformist responses, and to invent new response tactics themselves; train and reflect on the combination of unprecedented initiatives, a process more in keeping with ‘strategic DIY’ than classic planning; obtain experiential feedback on the best examples, enabling exploration of unprecedented issues and inventive answers; increase efforts to implicate actors at every level, recognizing resilience ‘from below’.

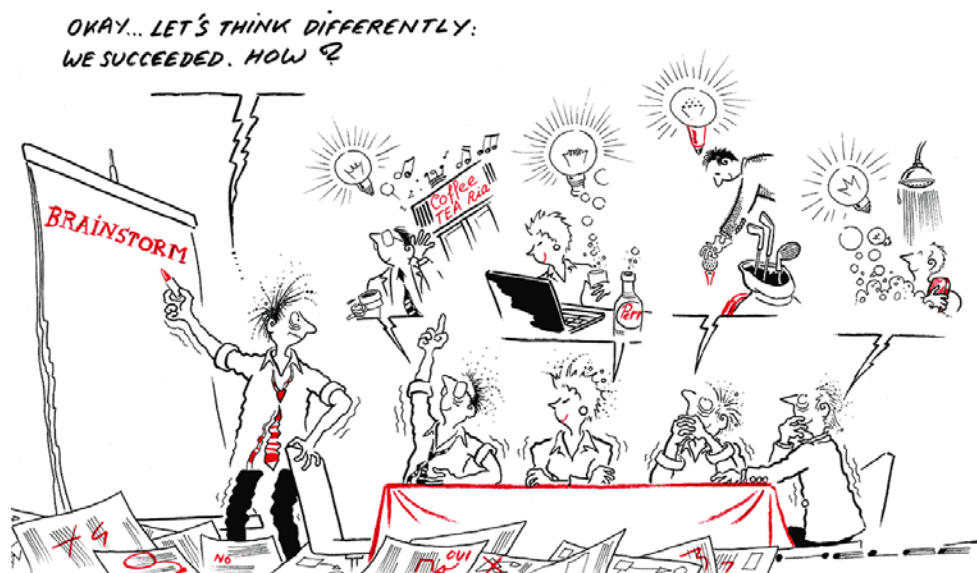
Illustration : In the case of Hurricane Sandy (October 2012), two engineers from Biolite, a SME distributed, upon their own initiative, small wood stoves with USB connectors, capable of serving as power sources for cell phone battery chargers. These stoves were originally designed for hikers and not at all for post-disaster situations. In just a few hours, word of the initiative had circled the globe. A policy of openness and citizen involvement, the revolution of the cell-phone, the magic of a technological innovation used outside of its intended domain and the initiative of

46. John Barry, *The Great Influenza*, op. cit., p. 33.

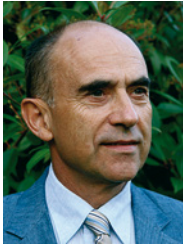
47. Erwan Lagadec, *Leadership in Unconventional Crises, A Transatlantic and Cross-Sector Assessment*, Center for Transatlantic Relations, The Paul Nitze School of Advanced International Studies, The Johns Hopkins University, Washington, D.C. 2009.
http://transatlantic.sais-jhu.edu/publications/books/Leadership_unconventional_crises_text.pdf

two engineers (who incidentally were not sent by their superiors to New York to with their clever idea) amounted to an unprecedented combination opening up new and concrete potential.⁴⁸

Today, it is all of this – from fundamental visions and attitudes to highly granular DIY tactical responses – which go to make up the architecture and practice of piloting adapted to our ‘terra incognita’.



48. Cf. <http://www.biolitestove.com/campstove/camp-stories/camp-stories-all/biolite-team-on-the-ground-after-hurricane-sandy.html>



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Patrick Lagadec also published:

Preventing Chaos in a Crisis

Strategies for Prevention, Control and Damage Limitation

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