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Crisis management: An extended reference framework for decision makers

Alessandro Carone* and Luigi Di Iorio**

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KPMG Advisory, 68 Via Leone Pancaldo, Verona 37100, Italy
Tel: +39 348 30 55 079; Fax: +39 02 66 77 38 08; E-mail: alessandrocarone@kpmg.it
**Open Human Solutions, 4 Via Eupili, Milan 20145, Italy
Tel: +39 02 31 11 80; E-mail: l.dilorio@openhs.it

Alessandro Carone joined Nolan, Norton Italia (KPMG Advisory) in 2001. Alessandro provides business continuity and crisis management services to a variety of clients, including financial services (insurance and banking groups), public administration (both central and local) and manufacturing. His applied research in the areas of crisis management and ICT strategy and governance integrates technical concepts and methodologies with systems-thinking. Alessandro has been a speaker at numerous business continuity and crisis management industry events internationally.

Luigi Di Iorio is a business consultant for Open Human Solutions, providing training courses on emotional intelligence with a focus on self-awareness, self-management, social intelligence and relationship management. As Adjunct Professor of Emotional Intelligence and Business at Luic University (Castellanza), his speciality is the relationship between emotional intelligence, decision making and business continuity management. At the BCM 2012 World Forum he co-presented a lecture on key capabilities for crisis managers. He has previously created an online coaching platform called Softcoaching as well as a platform to monitor emotional intelligence.

ABSTRACT
The paper discusses a reference framework for capabilities supporting effective crisis management. This framework has been developed by joining experiences in the field and knowledge of organisational models for crisis management, and executives’ empowerment, coaching and behavioural analysis. The paper is aimed at offering further insight to executives on critical success factors and means for managing crisis situations by extending the scope of analysis to human behaviour, to emotions and fears and their correlation with decision making. It is further intended to help familiarise them and to facilitate approaching a path towards emotional awareness.

Keywords: crisis management, reference framework, emotions, emotional intelligence, decision making, fears

INTRODUCTION
When speaking of crisis management, collective imagination usually leads to recall and focus on well-known, stereotyped doomsday scenarios populated with defensive command situation rooms crowded with people engaged in frantic activities and emergency teams engaged in desperate heroic acts.

Events and experience in the field show that real-life situations are very different. Crises lie in wait, scenarios do not have a Hollywood sheen but rather resemble the atmosphere of a generic foggy day in early November. Triggers of major disasters are often the trivial actions of humans going about their daily business.
Executives are called to decide in situations characterised by uncertainty, scarce/unreliable information, time pressure, psychological pressure exerted by the company, markets, clients and institutions. The emotional tension determined by external factors usually amplifies and worsens the complex task of making the right decisions, particularly when considering behavioural dynamics and patterns of people called to decision making in non-ordinary situations.

Sophisticated and proven methodologies, tools and processes to support management of a crisis situation can fail dramatically if people using them and steering the response are not sufficiently aware of their emotional characteristics and level of emotional maturity.

When the individual in a crisis situation is exposed to extraordinary pressure (eg time, risk, etc), unawareness of their own emotional universe may result in unleashing and amplifying both ancestral and modern fears.

The final outcome is often a relevant impairment of the decision-making capability, right when sharpness of evaluations, timeliness of decisions and effectiveness of actions are required.

The following focuses on crisis management in crisis situations and examines important components in both the technical and human arena. Elements discussed in the paper are not intended to provide a detailed analysis of the decision-making process and capabilities, but rather to bridge the gap in the specific field of crisis management, in which technical tools and methodologies are dominant with regard to the human factor.

REFERENCE FRAMEWORK FOR CRISIS MANAGEMENT: PART 1 — THE KNOWN SIDE

This section begins by considering a reference framework (Figure 1) for crisis management based on five domains:

- organisational model, consisting of an organisational structure, definition of roles and responsibilities for governing and managing emergency situations;
Table 1: The five domains founding crisis management and key activities/characteristics

<table>
<thead>
<tr>
<th>Technical domains</th>
<th>Processes</th>
<th>Procedures (CM/BCM/DR)</th>
<th>Tools</th>
<th>Human domain</th>
</tr>
</thead>
<tbody>
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<td>Organisational model</td>
<td>• Development (strategic, tactical, operational, hierarchical, centralised vs. decentralised, ...)</td>
<td>• Flow</td>
<td>• Safety &amp; security</td>
<td>• BCM awareness</td>
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<td></td>
<td>• Implementation</td>
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<td>• Scenario-based</td>
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<td>• RACI</td>
<td>• IT</td>
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<td>• Logistics</td>
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<td>• Internal/external communication</td>
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RACI, responsibility assignment matrix (responsible, accountable, consulted, informed); BIA, business impact analysis

- **processes**, which regulate the flow of activities in specific situations;
- **procedures**, aimed at providing detailed sequences of actions to address predefined situations, mainly to cope promptly with those characterised by low complexity and requiring a predictable sequence of tasks;
- **tools** to support activities before and after an ‘anomalous’ situation takes hold (tools can range from simple spreadsheets listing basic call trees and key resources for continuity management to advanced decision support systems, which integrate situation management functionalities, emergency communication capabilities and AI-based algorithms to support decision makers);
- **people** designated to take over roles and responsibilities defined in the organisational model at the different levels (strategic, tactical and operational).

Characteristics, requirements and solutions in the five domains are quite familiar to professionals operating in the fields of business continuity management (BCM), crisis management (CM) and disaster recovery (DR) and have been thoroughly and extensively analysed, discussed and evaluated both in theory and in practice. In addition to this, international, national and industry-specific regulation and standards often specify what should or shall be developed and implemented.

Organisations with sufficient maturity in these areas have developed proven capabilities in most domains. The BCM/CM/DR community has also been able to draft various approaches, often tailored to single industries and/or geographical regions.

For the sake of clarity and simplicity, the first four domains will be referred to as ‘technical’ domains and the last one as the ‘human’ domain, as summarised in Table 1.

A quick analysis of prevalent activities that are typically carried out in the five domains, based on assessments and observations of many organisations in different industries, reveals that the human domain is often approached in a similar way to the technical domains.

People involved in CM/BCM/DR activities are informed, trained and take part in tests and simulations. The main focus is on organisational and technical information, on the ability to recall and
execute procedures. However, activities in these tests and simulations take place in a ‘protected’ environment; ‘dry runs’ suitable for multiple rehearsals, simulations in the field, in which boundary conditions are necessarily forced within predefined constraints, etc.

Periodical simulations are in themselves useful and demonstrate relevant maturity in CM/BCM/DR, but there still remains a major drawback. Unlike the technical domains, the human domain (ie each person) is a universe in itself, which does not necessarily obey determined and predefined procedures. Some peculiarities of the human domain that are hard to manage, as one would do with technology or buildings, are expectations, perceptions, needs, beliefs, attitude, personality, personal background and system of values.

REFERENCE FRAMEWORK FOR CRISIS MANAGEMENT: PART 2 — THE SHADOW SIDE

In recent years, most organisations have been coping with increasing complexity in their internal operational model and in the business, market and political environment in which they operate. This usually leads to a higher degree of uncertainty in daily business, a phenomenon which is all the more pronounced in crisis situations, where uncertainty is a major characteristic.

A high-level cross-mapping of scenarios and behavioural patterns makes it possible to highlight major stress factors influencing decision-makers (eg time, increasing damage, external requests, etc) and to define the relevant elements in the dimensions of emotions and fears, which can then impair action.

Observations and debriefings of real-life situations and a closer look at one domain, focused on people, reveal that a whole realm — the human domain — has been given limited attention in theory and even less in practice.

As discussed, this paper refers to people who are involved to various extents in activities related to the governance and management of emergency situations, which are characterised by a non-ordinary context, boundary conditions and possibly goals. Among them are those who are tasked with making decisions.

The altered context usually exacerbates elements belonging to an n-dimensional space, which is peculiar to just one of the five domains cited above, ie people, all of them intangible, as depicted in Figure 2.

Blurred boundaries, high unpredictability and time-dependence are all characteristics of this space, which is furthermore hard to visualise and takes form just when real people take action. Contrary to the mostly static and deterministic characteristics of the four domains, the fifth contains a universe in itself, in which a subset of characteristics prevails depending on the specific context and history.

Multiple connections and correlations among the elements of this space give form to a mesh network. Once, by means of one or more senses, a person becomes conscious that something has happened, this prompts a chain of actions and reactions, of which the person may not be fully aware. Each stage of this chain reaction obeys unwritten and person-specific rules, which are non-deterministic and difficult to replicate, and to some extent automatic.

Perceptions and emotions follow complex relationships and land in the realm of human needs — they actually substantiate drivers underpinned by human needs, as shown in Maslow’s categorisation (Figure 3).

It is therefore fundamental to remember that technical competences are always influenced by emotional states, which on many occasions can make a difference in
crisis situations. Major differences may arise between normal and crisis conditions, because the so-called emotional amplification manifests itself.

Things are not viewed the same way under stress conditions. Personal insecurity increases, context-related resources and personal means are not seen and consequently not realised. But what about emotions?

Researchers recently analysed the correlation between emotions and decision making following a systematic, multidomain approach. Pfister and Böhm state that: ‘... emotions do not imply irrationality ...’ and ‘... without emotional involvement, decision making might not even be possible or might be far from optimal ...’.

Neuroscience has proved that emotions are an integral part of the reasoning and decision-making processes. There are
many cases of people suffering brain injuries in specific sites (ventral and medial sectors of the prefrontal cortex) who have lost a certain class of emotions (fear, for example) and hence decision-making skills. In these cases, reasoning is no longer positively influenced by the signals coming from the neural system and an individual makes harmful decisions for himself/herself and others. Emotional selective reduction is harmful to rationality, no less than a strong emotion can be. Elaborating an emotion positively influences the decision-making process: the emotion, in fact, creates a cognitive environment that brings out some parts of information but not others, for example: ‘am I scared? I will pay more attention to present risk factors’.

On the other hand, a person realising that needs cannot be fulfilled leaves room for anxiety and fears. With reference to Figure 3, if a person involved in a crisis feels that their own or their family’s health is at risk, a deep fear may rise and totally overcome her/him. If the person is the crisis manager, possible side-effects may become an issue.

Angie et al.⁷ integrate the previous work of Lerner and Keltner⁸ and state that:

‘... several studies focusing on anger and fear have shown that fearful and angry participants give different assessments of the likelihood of future negative events (e.g. fear activates higher estimates of the likelihood of risky events occurring while anger activates the opposite) and make different choices between risky alternatives (e.g. fearful individuals tend to choose the ‘sure thing’ while angry individuals choose the opposite ...’).

The path from perceptions to emotions is straight: it bypasses rationality and therefore almost all mechanisms that people train for and with which they cope in crisis situations. Perception itself is heavily dependent on the person, her/his overall condition and state, level of fatigue and mood, inherited and self-developed biases, etc.

In a crisis situation, the correlations of which people can be unaware among perceptions, feeling, emotions and fears can give way to unpredictable outcomes and, through positive feedback loops, to emotional ‘Larsen effects’.

Imagine what it would be like to be in a decision maker’s shoes. Several different emotions can be lived and felt within a few seconds:

- Excitement, curiosity: the courage to explore!
- Denial: ‘everything will get back to normal!’
- Anger: looking for a scapegoat!
- Uncertainty: ‘what is going to happen now?’
- Depression and sadness: ‘nothing will be the same!’
- Fear: to sense menace and withdraw.
- Shock: disorientation, disbelief, dismay, upheaval.

Bauman⁹ reminds us of the following:

‘This liquid modern world of ours, like all liquids, cannot stand still and keep its shape for long. Everything keeps changing — the fashions we follow, the events that intermittently catch our attention, the things we dream of and things we fear. And we, the inhabitants of this world in flux, feel the need to adjust to its tempo by being “flexible” and constantly ready to change. We want to know what is going on and what is likely to happen, but what we get is an avalanche of information that threatens to overwhelm us’.
If one now considers a crisis situation, both the environment affected by the crisis and the decision maker involved in governing tend to show a more complex behaviour, if complexity is characterised in terms of unpredictability of outputs given a set of inputs.

Praxis shows that once external complexity (of the environment) and internal complexity (of the person) come together, the final outcome is a variation of the overall complexity, positive or negative depending on how the two entities interact and are able to influence available means.

From the perspective of a decision maker, external complexity originates from (partial) unawareness of the rules, patterns, drivers and constraints governing it. Meteorological phenomena are a suitable example: weather forecasts can provide an estimate, a proxy of their important characteristics (time of occurrence, intensity, duration, etc), but a precise and reliable mid-term prediction is usually unattainable with today’s processing power and weather maths models.

On the other hand, a person can be considered a complex entity, where a complex behaviour is ignited by perceptions, whose very nature is to be all but objective. Personal experiences (memories), biases and mood of the moment are essential elements that influence one’s own way of perceiving something at a given time.

Unawareness or limited awareness of the ‘self’ turns a highly effective decision maker into a complex entity with highly unpredictable behaviour.

People are afraid of discontinuity when something changes, because they do not really know what is going to happen later. When they start dealing with uncertainty, their steadiness and points of reference are off. While feeling uncertainty, people start thinking of what they are about to lose and feel scared.

When people are stressed or dealing with a problem, they can lean on the structure and processes that they have built, but if these become inapplicable because of the changes happening all around, what is the way out?

Some companies have tried to put advice into a list and hang it on a wall somewhere (maybe dusty and not really visible) and one might come across something like the following:

- Recognise your own emotions as legitimate, reasonable and insuppressible!
- Try concentrating and capturing those important signals coming from the outside or others.
- Give value and autonomy to people who show themselves to be brave, active and responsible.
- Take into account the risks and be courageous.
- Recognise the value of relationships (if things go well, these bonds will be strengthened).
- Direct emotions of anger and fear towards action.
- Avoid denying reality.
- Do not hide but show yourself, especially if you are responsible for the trouble.
- Do not play things down. It is fine to keep things under control, but in many cases it is fair to communicate the truth.
- Avoid blaming others. During crisis times it is useless.
- Communicate a lot and continuously. People are reassured by receiving a constant flow of communications informing them of what is happening and why.

Good advice is only the first step to prepare for a crisis situation and to empower an effective crisis manager. Fortunately, further steps are available and these are discussed below.
REFERENCE FRAMEWORK FOR CRISIS MANAGEMENT: PART 3 — THE LINK BETWEEN THE TWO LAYERS

In a crisis situation, the individual rationally searches for:

- information;
- keys to decode reality;
- tools.

Emotionally, she/he craves:

- protection reliance – feeling reassured is fundamental;
- sharing;
- value awards.

A representation of what happens is shown in Figure 4.

In other words, when a crisis strikes, the known and the shadow sides of the reference framework are activated, the latter is, in most cases, not done consciously.

Added to this, two elements deserve more light: the shadow side and the link function between it and the known side of the reference framework.

When considering the emotional side, specific work can be undertaken to address the topic, both indirectly and directly. Indirect preparation towards emotions is actually multi-faceted and can comprise initiatives around various topics; such as those discussed below:

- Enhancement of self-knowledge (and of knowledge of the 'self'). Self-knowledge can be improved by getting to know one's own comfort zone in crisis situations, particularly personal limits and constraints and biases. When pressure mounts, individuals tend to (re)act following their own and known schemas, as these are supposed to increase certainty and provide a 'safe harbour' in the surrounding chaos. Unfortunately, most of these behavioural patterns, if not properly analysed and recognised in advance, are applicable to normal situations. The outcomes in a crisis may therefore differ heavily from expectations:
‘Humans are truly amazing creatures. They have an incredible ability to fabricate and shape reality to suit their needs. If someone is deeply committed to an assumption or a belief, then all of the evidence and arguments to the contrary are often of little use in causing the person to abandon them ... We especially resist that which threatens our basic sense of who and what we are’.10

- **Understanding of one's own decision-making processes and schemas.** This is strictly related to the previously discussed capability to (re)act. Awareness in decision making creates a ‘safety net’ when it comes to taking the initiative swiftly in complex situations where intuition and standard processes are not suitable and, if used, might worsen the overall picture:

  ‘Für den Umgang mit komplexen Entscheidungsproblemen ergeben sich Anforderungen, die neben den charakteristischen Merkmalen von komplexen Entscheidungsproblemen, insbesondere die Abhängigkeiten der handelnden Person von situativen Faktoren berücksichtigen’ ... „Die Denkgefahren, die dabei zu bewältigen sind, reichen vom unkritischen Nutzen von Vorwissen über Wünschenken zum domatischen Verschanden hinter seinen Erfahrungen bis zum lähmenden Selbstzweifel’. [Requirements emerge for dealing with complex decisions, which, along with the characteristics of complex decision issues, take into account actors’ dependencies on context-specific factors ... Thought errors to overcome range from the non-critical use of existing knowledge through to the expression of desires and ducking behind experiences, and up to paralysing self-doubt.]11

A structured approach to this topic can provide robust help to overcome a major (and very common) potential flaw:

‘one of the most critical and thorniest issues we have to face is that of wicked problems ... a wicked problem is a problem that resists formulation by any known discipline, profession and so on. What, therefore, can we possibly do with them? ... we can’t just throw up our hands and do nothing, because doing nothing presupposes that the problem has been defined well enough that we know that doing nothing is an acceptable option’.12

- **Minimisation of causes and triggers that can lead to drifting outside one's own comfort zone during a crisis.** If a precise role as a crisis manager can be maintained, the requirements related to information, keys to decode reality and tools can be analysed before a crisis happens, in order to provide suitable support. Investigation into the area of rationality leads to various elements, which, combined, help minimise the impact of negative factors in the emotional realm.

All can be tailored in advance to the specific context in which a crisis manager is called to operate, in order to complement common provisions for crisis management. All should be considered by taking crisis managers and not technicalities as barycentric, so that the key function of a crisis manager — decision making — is enabled and supported to the very best.

- **Defining CM-oriented information and ICT architecture.** On the one hand, this should fulfill the requirement of making relevant information available in a timely and effective way to the crisis manager and her/his aides and, on the other hand, to integrate tools to gather, analyse, process and present information related to the
crisis situation and to support operational and managerial reporting.

Direct preparation leads to improvement of the emotional awareness of the individual: the more she/he is able to cope with her/his emotions, the better the chances to exploit them and to control them in a positive way, in normal as well as in crisis times. Awareness implies learning to feel and identify emotions, to recognise, to understand, to manage and to influence them.

Emotional intelligence can provide huge support and can extend, strengthen and amplify capabilities to cope with emotions and related issues. Three pillars to address crisis management from the emotional intelligence perspective are highlighted below:

- **Pillar 1: Where should I turn my attention?**
  To the problem or to the solution? The following principle should be kept in mind: energy flows where attention goes. When people start to focus on their woes rather than the crisis at hand, it is always hard to find the solution. People's relationship with their emotions follows this principle too, and the same applies to decision making. Therefore, in trouble situations, it is worth accepting the state that one is in.

- **Pillar 2: How to manage my emotions?** It is really important to keep things under control and to try managing stress. One of the most ancient laws of psychology claims that if anxiety and concerns venture further than a moderate level, they will wear down intellectual capabilities. Anxiety not only compromises mental capabilities, but impairs intelligence as well. On the other hand, a positive mood acts as oil on one's 'mental gears', enabling them to work much more efficiently. It also improves ability in understanding information and using decision-making rules to form complex opinions, while making one's mind more flexible. Several researchers claim that optimistic thinking makes others consider us in a favourable light. This positive disposition boosts confidence in reaching goals or solving problems. Consequently, creativity and decision-making ability grow and one is also more proactive.

- **Pillar 3: Train and get used to visualising situations in a clear and precise way.** Obviously it is really hard to stay calm in crisis situations. This is why extemporising is not possible. Staying calm during crisis situations is the result of constant training. The advice is to start training in managing difficult situations, acting as if their solutions are just around the corner. At the bottom of disasters and lack of rules observation lies unpreparedness and lack of training. It is important to visualise the activity of managing a difficult situation and to train continuously.

To follow the three pillars presented above and start doing a preliminary job on aim determination is a giant leap for constantly improving one's activities.

In addition to the above-mentioned points, is there any specific training to improve emotional intelligence? First, one needs to understand which area of emotional intelligence one is interested in. One should first examine if one's focus is the self-awareness area or the relationship management area. There is nothing to stop anyone from running a general assessment to spot and highlight the strengths and weaknesses of each.

Many people ask how to measure abstract areas. The answer is really easy: by translating general into particular and, for each area; in other words, translating areas in terms of evident behaviour. For example, to measure the self-management area,
one must translate the sub-areas into specific behaviours. The first sub-area (self-control) could be: 'the individual stays calm under stressful conditions' or 'the individual has demonstrated self-control when trouble came'. In short, each area has to become ‘visible’ and to be transformed into something clear in other people’s view too.

Emotional intelligence’s assessments can lie on different levels. The first is self-assessment, followed by a more articulated level, where the same assessment is submitted to colleagues as well (colleagues will evaluate the subject on the basis of what they see). The third level can be a 360-degree assessment, in which the evaluation is submitted to both colleagues and the boss.

In this case, there would be a triple assessment: self-assessment; colleagues’ assessment; finally, the boss’s assessment. This is commonly defined as 360-degree feedback, but made on the basis of items related to emotional intelligence. These assessments can produce strong points, mainly in areas of improvement. Improvement areas can therefore be the subject of the training programme.

Expertise in training, coaching and behavioural education has always proceeded from specific, evident and the determination of a clear aim. For example, if a subject shows proof of improvement – which could be 'decision making under stress conditions' – the questions that would be asked to determine a clear target could be the following:

- What are the obstacles you could encounter along the way?
- What are the resources you need?
- Is there a colleague to help you?
- Is there somebody who already has this expertise and represents a benchmark?

Once these details are defined, work can start on what has emerged and a plan for the most effective strategy can be drafted.

A full-blown training concept should be based on an incremental, stage-based evolutionary path spanning across two dimensions, i.e. 'soft skills' and 'hard skills'. The crisis manager should identify the most suitable mix of both depending on her/his actual improvement goals and, in particular, on her/his openness to approach the universe of emotions and decision making.

Previous work and direct experience in the field has demonstrated the possibility of blending different training formats and content to enable participants to improve their skills, capabilities, self-consciousness and self-awareness at various levels.

It should then be noted that the major obstacle to entering the evolutionary path is the reluctance of the person to charter 'new waters', as well as a company culture in many organisations, which reveals relevant difficulties in experiencing the very nature of 'soft skills' in depth.

CONCLUSION
An overall, high-level assessment of the implementation of crisis management organisational models in organisations whose core mission is not emergency management has highlighted that staff (for emergencies) — including managers — still receive limited attention with regard to the improvement of personal skills related to capabilities for emergency management and decision making.

Most improvement measures and initia-
tives still fall within the ‘traditional’ scope comprising BCM/CM training and testing, the latter including BCM/CM simulations.

All such measures can be considered relevant to ensure effective crisis management. Nevertheless, a further component is identified, focused on decision makers in emergency situations and on the role of their emotions, in particular, fears.

Specialist research has in recent years assessed that emotions and decision making are tightly related. This paper moves from fears to which a decision maker may be exposed in crisis situations and recognises self-knowledge and delimitation of one’s comfort zone in terms of emotions as two important elements informing decision-making capabilities for crisis management.

Emotional intelligence can offer a set of tools to empower understanding of one’s emotional realm and, in particular, to enable a decision maker to tame and exploit their own emotions.

In crisis management, the bridge between the ‘technological, procedure-based’ space and the decision maker’s emotional universe allows an extended reference framework to be sketched, in which the two layers exert an equal influence.

This discloses opportunities for further work and investigation in the combined dimensions of emotions, decision making and crisis management.

When considering the triple (information, keys to decode reality, tools) mentioned in Part 3, there is currently room for improvement in the field of crisis management for the organisations in scope, where definition of information and functional requirements should then take into consideration insights provided by emotional intelligence, management of fears and decision-making theories:

- Direct improvements in semantic, quality and timeliness of data supporting crisis management and BCM has potential for both creating more reliable views of the actual situation during a crisis and, at the same time, for reducing uncertainty and thus the negative emotions related to it.
- The same holds for technical tools to represent and process information, in order to make available fit-for-purpose, true decision support systems (eg similar to those implementing situation management).

Conversely, the contextualisation and tailoring of emotional intelligence and the practices of decision making in crisis management situations are envisaged to highlight relevant/dominant boundary conditions, patterns and characteristics. This is aimed at offering to crisis management professional dedicated tools in this domain and an advanced educational and training path for skills improvement.

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(6) Pfister and Böhm, ref. 2 above.


(12) Bauman, ref. 9 above.