international risk
governance council

Emerging risk governance

On 6 June 2014, IRGC organised a roundtable discussion on the governance of **emerging risks.** It presented a draft of the "protocol" that is being developed under the project leadership of Prof. Ortwin Renn. Elaborating upon previous work on **contributing factors to risk emergence** and **improving management of emerging risks**, the protocol aims to support public and private organisations in their work to design internal processes to proactively deal with emerging risks. These processes involve the ability to: *anticipate risk* (identify, evaluate and prioritise potential threats and opportunities) and *respond* to risk (assess and respond to those threats that may develop into risks to the organisation).

Emerging risks often develop in complex environments and display high levels of uncertainty. Applying conventional measurement logics is inadequate to address emerging risks and, therefore, frameworks for the governance of familiar risks are often not fully appropriate in these contexts. Furthermore, emerging risks and opportunities are often interrelated and it is as important for organisations to create conditions for opportunity management as it is to develop effective processes for risk management. This improves their capacity to adapt to changing environments and their competitive advantage. Ultimately, emerging risk governance aims to avoid major failures (e.g. "the next Asbestos") and protect the public well-being.

The protocol describes the key steps and associated methodologies for early identification and management of emerging risks.

- Making sense of the present and exploring the future
- Developing scenarios based on models and narratives
- Generating risk management options and designing a strategy
- Implementing the strategy
- Reviewing risk development and decisions

At the beginning of the risk emergence process, the aim is to *detect* and *analyse* (weak) signals pertaining to ongoing and future dynamics that may change the risk portfolios of organisations, and *evaluate* whether risk to the organisation may materialize and with what potential impact. Emerging risk managers aim to navigate the uncertainties involved in the risk development, until more knowledge about it is collected. Then, either the risk becomes familiar and can be steered into a portfolio of routinely manageable risks, or it is evaluated as a tolerable risk, or steered into disappearance. For example, the social construction and perception of a new potential risk may be very important and result in a concern assessment that does not coincide with the scientific assessment.

Strategies for managing emerging risks thus differ from those for managing familiar risks. IRGC proposes 6 management options, which can be combined for more effective outcome:

- Acting on the contributing factors to risk emergence, amplification and attenuation
- Developing precautionary approaches
- Reducing vulnerability
- Modifying (increasing) the organisation's risk appetite in line with the new risk
- Using risk governance methods for established risks
- Doing nothing

In this project work, IRGC integrates expertise from various fields, including risk management, futures studies, innovation management, dynamic capabilities and strategic decision-making. Proposals for creating appropriate organisational cultures are also included. Particular emphasis is put on the **need for an emerging risk *conductor***, whose role is to coordinate and lead the internal and external stakeholders involved in the assessment, management and communication of emerging issues. It is equally important that emerging risk governance is set as a strategic priority, with commitment and involvement from top management.

Participants in the roundtable discussion included 40 practitioners and researchers.

Presentations

The roundtable discussion was introduced by a presentation of IRGC's draft guidelines and by expert contributions.

Andrea Altieri, Scientific Committee and Emerging Risks Unit, European Food Safety Authority

Emerging Risk Identification at EFSA
Presentation slides [pdf]
Andrea Altieri described the extensive experience of EFSA in the identification of emerging risks in the food and drink sector. EFSA defines emerging risks as new hazard, new exposure or increased susceptibility. He shared EFSA's experience in deploying cost efficient approaches for threats detection through an extended network of experts. EFSA identifies emerging issues through consultations with experts and stakeholders, collects data on these issues, evaluates and prioritises them based on novelty, soundness, imminence, scale and severity. He emphasized the role of expertise and networking, in particular for filtering signals; the need to share information without creating unnecessary fears; and challenges associated with emerging risk identification in public contexts where important economic, social and political motives interact with the scientific process.

Reto Schneider, Head of Emerging Risk Management, Swiss Re

Emerging Risk Identification and Evaluation

Presentation slides [pdf]

Emerging risks are an important area of concern for the insurance industry and its clients. Reto Schneider reminded participants that emerging risks are often risks for which probability distributions do not exist. Risk managers in the insurance industry must address them primarily through the exposure perspective, which is quite unusual for them. Emerging risk assessment involves asking the following questions:

- What can go wrong (hazard)?
- What could be the consequences (exposure, value at risk)?
- What could be done in terms of loss prevention? Is the prevention affordable?

He presented SONAR, Swiss Re's process for identifying, assessing (and prioritising) and managing emerging risks, and for informing reports and discussions with clients and other stakeholders. He emphasized the challenge of demonstrating the relevance and success of an institutional process for emerging risk management:

- How to make the case that the process is effective and cost-efficient?
- How to make the business case that an emerging risk could have an impact on the organisation and that allocating resources to its management is needed?
- How to measure that early intervention did prevent an emerging risk from materializing, if the risk has delayed effects or fades away?
- Is there a process for "decommissioning" emerging risks?

Angela Wilkinson, Strategic Foresight Counsellor, OECD

Risk Governance in a Shifting World

Presentation slides [pdf]

Angela Wilkinson introduced OECD's work on emerging risks and reminded the audience of some key OECD recommendations, including OECD's work on *Future Global Shocks*. She emphasised the need to build preparedness through:

- Comprehensive all-hazards and transboundary approaches
- Foresight analysis (horizon scanning and scenario building)
- Mobilising stakeholders and fostering invention in risk prevention and mitigation
- Developing adaptive capacities to cope with surprises.

She also emphasized the importance of working with various cultures and communities in order to address organizational complexity and to make sense of new or challenging information and events. Risk analysts need to work together with innovation managers, strategic decision makers and foresight experts to develop thorough analysis of future developments that may dramatically change the portfolio of threats and opportunities, which public and private organisations will face in the future. It is however important to keep an eye on the global public interest, as the future is not neutral, but is the level playing field of power.

Gerard Hodgkinson, Associate Dean (Programme Quality), Head of Behavioural Science, and Professor of Strategic Management & Behavioural Science, Warwick Business School, University of Warwick

Comments on the IRGC protocol for emerging risk governance

Presentation slides [pdf]

Gerard Hodgkinson talked about the *cognitive aspects* of emerging risk governance and recommended that managers consider certain elements of *behavioural science*. Emerging risk governance must address emotional challenges, which every individual may be confronted to when revising the list of threats and opportunities that may affect him. Thinking harder (reflectivity) is not enough; intuition and related non-conscious ("automatic") forms of cognition (reflexivity) are central to effective human adaptation. Thus, if we want to tackle the challenges of complexity, uncertainty and ambiguity in emerging risks, it is important to create the time and space to explore emotional reactions to emerging risks and reconcile underlying differences in interpretation.

He further emphasised that emotions/affect and less deliberative forms of cognition are integral to the *adaptive capabilities* of actors and their organisations. Configuration and reconfiguration of resources and competences within a changing environment is central to current perspectives and debates in the strategy field. He thus suggests that emerging risk governance can be dealt with as *dynamic capabilities*, which comprise mechanisms (skills, processes, procedures, organisational structures, decision rules and disciplines) that enable *learning* and *innovation* at organisational level:

- *sensing* signals of opportunities and threats (developing and maintaining mental models of risks fit for purpose);
- *seizing* opportunities and mitigating threats (key requirement: minimising cognitive biases in risk judgment and choice/decision-making); and
- *transforming* the organisation, in the light of what has been learned (key requirement: managing identity threats).

Dynamic capabilities could become central in the field of emerging risk governance, especially if combined with lessons learned from psychological foundations of organisational transformation. Inertia and resistance to change, which are obstacles to emerging risk assessment and management, could be overcome with insights from dynamic capabilities and self-regulation (emotion management), which must be a key skill requirement of the emerging risk conductor.

Roundtable discussion

In the second part of the workshop, participants discussed the following questions:

How to identify that an issue is a potential risk and/or opportunity *to* an organisation?

Participants acknowledged the difficulty of using weak signals to identify emerging risks and opportunities. The uncertainty and ambiguity of these signals, associated with the possibility of false positives and negatives, makes it difficult to correctly capture and interpret current environmental evolutions and understand their meaning for an organisation's future.

How can an organisation prioritise potential risks?

Filtering and prioritising risks is a challenging but necessary task in emerging risk governance because the list of possible threats and opportunities may rapidly exceed the capacity of any organisation to deal with all of them. The design and implementation of a *filtering and prioritization process for early-warning signals and emerging risks* that is effective and cost efficient is one of the most difficult tasks when it comes to emerging risks. It thus requires specific attention. Two suggestions are worth mentioning here. First, it is useful to focus on possible *impact* -rather than on likelihood- and *resources/capabilities* to address the emerging risk. Second: a *risk-based approach to investment and decision-making* under constraints can help. Experience indicates that organisations can improve features of their systems by working with and learning from others.

How to use futures studies in the context of emerging risk governance?

When signals of an emerging issue are captured and assessed as potentially relevant to an organisation, more exploratory work to imagine and describe possible future developments of the issue is necessary. The field of futures studies can provide very valuable approaches to look into the future, but can also be disappointing if there is no alignment between what futures studies can produce in reality and what people expect from them. It is important that those who organise futures studies in an organisation are realistic and transparent about objectives and conditions of success, and communicate well. Engaging in futures studies can become a resource-intensive task, which must be in line with available data and resources. One can however expect a positive return on investment in several respects, including that engaging in futures studies can support the shaping of a *common understanding of future challenges*. Engaging in scenario development or other foresight activities can help deal with *complexity and uncertainty*, but overall, it contributes to shaping an organisation's *culture*, which in turn can support its strategic decisions and facilitate implementation. Futures studies can be relevant for various purposes in organisations, including strategic planning and innovation management. Resources allocated to them can thus be shared with others.

How to make decisions regarding potential risks and opportunities?

In the case of emerging risks and opportunities, decisions have to be *robust*, in the sense that they must enable the organisation to cope with uncertainty and various futures. They must also be *cost-efficient* and provide *tangible outcome*. Regarding how much resource to put into an emerging risk and how to deal with fading, insights may be gained from certain economic theories that focus on when to acquire additional information, or when to stop investments in e.g. probing a risk. However, another aspect of decisions about emerging risks is that they must be *legitimate*. Legitimacy provides a decision maker with the right to make decisions that will be accepted even if their outcome is uncertain, as the future is uncertain. It will allow him to mobilise resources and expertise to implement his decisions and trigger action. There is finally an important success factor for emerging risk management: managers must be made *accountable*, but they must also be adequately *rewarded*, even when an identified emerging risk fades away, or does not materialize or affect negatively his organisation.

How to “conduct” the emerging risk governance process?

IRGC suggests that an *emerging risk conductor* can help mobilise and coordinate the various disciplines and skills required by emerging risk governance. The conductor may be a chief risk officer, but is not a risk owner. Participants in the roundtable discussed that the conductor should not be seen as a commander who assigns tasks and missions in a top-down manner, but a facilitator who helps embrace uncertainty, who collects and coordinates the diversity of knowledge and skills that emerging risk governance requires, and who enhances participation and engagement with stakeholders. He or she personifies a home for discussing emerging issues and is overall responsible that emerging risk governance serves the needs of decision makers, the organisation and ultimately the public good.