

# Risk governance and policies: the Swiss example of the canton of Vaud. Assessments, lessons learned and perspectives after a 10-year period.

Céline Thévenaz, MSc<sup>1</sup>; Isabelle Montani, PhD<sup>1</sup>; Beatrice Schiffer, PhD.<sup>1</sup>

## INTRODUCTION

On January 21, 1969, a coolant malfunction from an experimental underground reactor situated in Lucens (in the countryside of the canton of Vaud, Switzerland) led to a partial core meltdown and radioactive contamination of the underground infrastructure. Fortunately, no irradiation of the population or of the environment occurred, but this incident seriously questioned the risk assessment process and crisis management capacity of the canton of Vaud. The political authorities decided to create, after this incident, a crisis management organisation and to entrust the police and justice department with its implementation. However, it took more than 30 years until the concept of integrated risk management, including risk analysis, preparation and emergency response was legally settled at the Swiss federal level (in 2001). In 2006, the canton of Vaud transposed the federal law to the state level, thus dictating the foundation for operational measures. The same year, flooding in the city of Roche showed that the need for a coherent and structured approach was indeed urgent and vital.

## STUDY AREA

The year 2016 will mark a ten-year period since the beginning of this process and constitutes an ideal time to assess it with hindsight. Many outputs have been produced and implemented following these legal bases. The goal of this present study is thus to offer a critical outlook in order to suggest insights in terms of good practice and lessons learned. The results of the present paper are based on three axes:

- Lessons from real-life engagements and large-scale exercises (case studies);
- Feedback of participants of the crisis management training courses;
- Future developments.

The process began with a risk analysis study. It offered a global view on the dangers which could potentially threaten the population, the environment, the economy or the critical infrastructures of the canton. A total of 31 dangers were identified and distributed into 3 categories (natural disasters, technical incidents and social risks).

Each of these risks was then transposed into a contingency plan (see Figure 1). For some geographic localisations subject to specific risks (for example the Chablais region to landslides), particular sectorial plans have been developed with the concerned partners. In parallel, the concept of integrated risk management was further developed into a formal document concretely detailing its organisation in a time of crisis: expected consequences of various types of events, ad hoc decisional structures, competencies and responsibilities, as well as tasks and processes of the cantonal crisis organisation (EMCC). The infrastructures and ICT tools and systems required to shelter the system were also identified, built and tested. These tools consist notably of a cartographic representation of a situation and of informative recordings through a journal of events.

Since the beginning of the process and in parallel to the development of all of the above-cited measures, exercises - be it full-scale or simulations - have been regularly organised and carried out, not only in order to test the system and its compounds, but also to actually build it. Indeed, it is through these exercises and the experience gained that the many available options could be identified, put to the test, and validated - or invalidated. The system was therefore gradually built and eventually formalised, taking care to include at all steps the major partner organisations who are an integral part of the EMCC (police, fire department, health care, protection and support service, and technical services).

The formal document that resulted served as a basis for developing training modules. Overall, more than 500 people have been trained, from one-day to four-day sessions, depending on their responsibilities in the crisis management system. Thus, the operational capacity of the EMCC has been optimized to face a disaster scenario.

Fortunately, the canton has never had to set off the full emergency plan. However, the system is built in such a way that allows its member to reduce potential consequences through anticipation and early measures. In this sense, the canton faced a number of cases, particularly in the field of natural events, which were not full-scale crises but were nonetheless particular situations where the collaboration and coordination of the involved partners were required. A recent example is the heavy snow-fall and strong winds that occurred in February 2015, blocking many main roads for several days. Over the years, it has become clear that the more the members of the system are taught and trained, the more they implement the cantonal crisis mechanisms.

## CONCLUSIONS

Two key factors have been identified to explain the success of the system over the last ten years. The first factor is the integrative approach that includes all of the concerned parties, from a tactical to a strategic viewpoint. As a consequence, every actor of the system feels included and responsible for the system in its whole. The second key factor lies within the intensive training and testing that was implemented through participative in-class lessons but also through full-size exercises. In conclusion, willing to anticipate future changes, be it new risks or new ways of dealing with crisis, the canton of Vaud has also developed a small prospective research unit. This will be particularly helpful to assist in implementing the future modifications expected following a national project (Protopop 2015+) that will reshape the national scope of crisis management, thus ensuring that the existing appreciation by the many cantonal and federal stakeholders will be continued in the future.

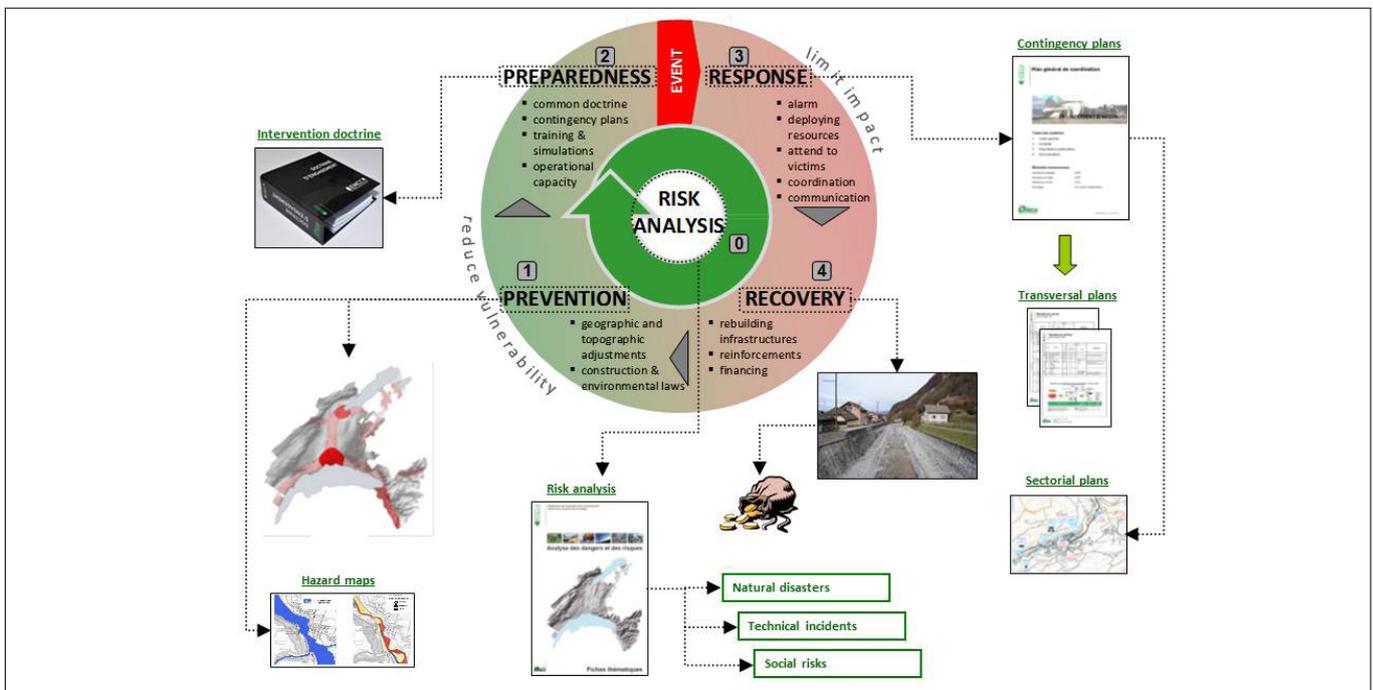


Figure 1. Illustration of the integrated risk management system

## KEYWORDS

contingency planning; Risk analysis; intervention doctrine; crisis management training

1 Service de la sécurité civile et militaire - Canton de Vaud, Suisse (Service of civil security and military affairs - Canton Vaud, Switzerland), Penthelaz, SWITZERLAND, celine.thevenaz@vd.ch; isabelle.montani@vd.ch, beatrice.schiffer@vd.ch