



17<sup>TH</sup> INTERNATIONAL CONFERENCE ON INFORMATION SYSTEMS FOR CRISIS RESPONSE AND MANAGEMENT

## TRACK 4 - Cross-Border Resilience

When a disaster strikes a region in any country, aid is usually provided first by the neighboring regions. Due to the geographical proximity and familiarity with the circumstances, assistance from neighboring regions is usually faster, more effective and more accepted than the slowly starting support from the country's capital organized by the central government.

However, what if the affected region is a border region and the nearest region, which could provide help lies within another country? Crisis cooperation in a borderland is more complex than domestic missions since more actors with different cultural backgrounds are involved. In particular, language barriers, diverse organizational systems and legislative issues are challenges for coordination. Thus, coordination requires many preplanned activities ranging from compatible technical equipment up to common legislative frameworks allowing for, e.g. seamless rescue activities in the affected country. In addition, communication procedures as a key factor for efficient cooperation need to be established, and trust between the emergency forces of the two nations has to be built in order to avoid misunderstanding and discoordination. For example, joint trainings of the task forces are essential.

In spite of this long list of requirements and difficulties, at the same time border regions provide a high potential for effective cooperation and coordination, too. Proximity to the other country cannot only lead to a situation in which language, habits and institutions are more familiar compared to that of other foreign countries. Due to the historically grown familiarity, a unique culture can also develop in the border region, with which a positive attitude towards the co-citizens, trust and cross-border attachment go hand in hand. If these characteristics prevail, borderland has a high potential for improving cross-border resilience with respect to disasters. This track "Cross-border resilience" brings together researchers who explore key factors of success, obstacles and levers of cross-border cooperation in the context of crisis management. It is about the overarching question of how to strengthen resilience in a borderland region by addressing intercultural and inter-organizational challenges from a scientific point of view. This should eventually lead to a significant improvement of the resilience in a cross-border region.

### TRACK FORMAT

The track plans for collaborative presentation and knowledge exchange. Preliminary to the conference, the track chairs plan to gather the related submissions by topic (see the description of topics below), define its underlying controversies (based on the contribution) and

compose the panels to organize discussions on the topic and its related controversies. The presenters will articulate their contribution to the topic. They will present their work as a possible answer to the main key questions raised by the track chairs and will be asked to provide questions and provocative conclusions with respect to the topic as well. Each presentation within the panel should not last longer than 15 minutes, which would leave room for discussion. The track will conclude with an open discussion of recommendations for best practices in cross-border regions.

The track co-chairs plan to have a *special issue* on cross border collaboration in the Journal of Homeland Security and Emergency Management (JHSEM). Good contributions can submit an extended version of their paper to this special issue.

## TRACK TOPICS

The subtopics are initiated to cover a wide range of borderland crisis response considerations from a social science perspective on human behavior, via simulation and optimization tools to applied research of inter-organizational cooperation for civil protection authorities.

### ***Topic 1: Models of human behavior (e.g. agent-based models) in the context of cross-border resilience***

Borderland crisis response is a complex task as there are many actors involved with different backgrounds and nationalities. While the behavior of the affected people and their interaction with helpers is generally difficult to predict in any crisis situation, the behavioral complexity in a cross-border context increases even more. As human behavior is strongly shaped by culture and organizational structures in which people live, different behavioral patterns have to be considered in borderland studies. One way to explore complex, interactive behavior is to use agent-based models. For example, agent-based simulations of cross-border communication and cooperation in crisis management can contribute to a better understanding of different trajectories of a crisis, support strategic planning and help to identify strategies for fast and robust reactions. Apart from agent-based modeling, also approaches from experimental research, such as scenario experiments or lab experiments as well as game-theoretical models fit into this topic.

### ***Topic 2: Social science and organizational research in the area of cross-border resilience***

There is a long history in organizational research related to the cooperation and collaboration of disaster response authorities. But despite the growing practical relevance, research related to cross-border collaboration of response organizations has overlooked some core issues such as the diversity of actors and organizations, as well as its growing complexity. In particular, cross-border cooperation is strongly influenced by the way organizations handle different legal frameworks, national structures, information infrastructures and emergency management cultures. Therefore this topic will focus on the identification of success factors for the disaster resilience in a cross-border setting. We are looking for contributions related to the cross-border collaboration during daily (small) emergencies and large-scale disasters. Methodological approaches include, but are not limited to, qualitative and quantitative methods, case study research, decision analysis and information management.

### ***Topic 3: Archive & historical analysis, prospective analysis, data analysis***

Exploring borderland resilience is also challenging because empirical evidence is scarce. Only very few approaches really investigate the border region (as opposed to general bi- or trilateral cooperation) and even fewer studies consider resilience in this context. Therefore,

this topic embraces all approaches that aim to gain information and data through retrospective or prospective analysis that sharpen our understanding of cross-border resilience and contribute to new insights in this area.

### ***Further topics and methodological approaches related to cross-border resilience***

In addition, the track strongly encourages the submission of papers related to cross-border resilience which do not fit to any of the topics described above.

## **TRACK CHAIRS**



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