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## Conclusions of the Fourth European Conference on Risk Perception, Behaviour, Management and Response - ECRP 2023

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BUCHAREST, ROMANIA  
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CONCLUSIONS OF THE FOURTH  
EUROPEAN CONFERENCE ON  
RISK PERCEPTION, BEHAVIOUR,  
MANAGEMENT AND RESPONSE  
ECRP 2023

# FOURTH EUROPEAN CONFERENCE ON RISK PERCEPTION, BEHAVIOUR, MANAGEMENT AND RESPONSE

## Objectives

The Fourth ECRP conference in June 2023 in Bucharest, Romania, has gathered again our two communities, the Risk Perception and Behaviour Survey of Surveyors (Risk-SoS) and the H2020-DRS-01 Cluster on risk perception and adaptive behaviour (a grouping of several Horizon Europe projects). The ECRP conference cycle aims to contribute to improve the ability of researchers in the field to work together and build cumulative knowledge, fostering scientific communication and collaborative learning, ultimately leading to joint research publications and projects.

This cycle emerged in response to the challenges posed by the current fragmentation of the studies of risk perceptions and how perceptions influence behaviour. It remains unclear why people fail to act adaptively to reduce future losses, even when there is ever richer information available on a wide range of hazards (flood, drought, earthquakes, etc.). The current collection of seemingly independent case studies hinders comparability and transferability across scales and contexts and hampers recommendations for policy and risk management. Another challenge derives from the lack of a robust theoretical base and the apparent path dependency of design choices routinely based on previous research, consolidating the predominance of socio-psychological theories and methodological individualism, which are often non-contextual. A greater diversity of theoretical frameworks could lead to increased attention to socio-ecological processes and the socio-cultural context of risk, which might be critical for case studies cross-validation.



## ECRP Conference Cycle

The ECRP conference cycle regards these limitations as the transitory price to pay for an ongoing multidisciplinary effort. While the diversity of approaches is an asset, the robustness of theories and methods is an investment. For this edition, the conference retained its hybrid format and brought together 29 researchers, experts, and practitioners from 10 countries (Austria, Bulgaria, France, Germany, Italy, the Netherlands, Romania, Spain, Sweden, and the United Kingdom). The panels and workshops crossed disciplines (complexity science, economics, engineering, geography, history, life science, psychology, sociology, among others), including fields from all the Disaster Risk Reduction cycle phases (from early warning to insurance), and using diverse case studies from ongoing European projects as well as comparisons with Japan.



Bucharest provided participants with a fresh perspective on seismic risk, setting the scene for an in-depth analysis of earthquake risk perception in an urban area characterised by high-level physical vulnerability, and hotspots of social vulnerability. Some of the emerging themes included the cross-effects of the pandemic with other hazards, challenges deriving from multi-hazards events, mental health and healthcare work sustainability, as well as the cumulative effects of multiple flood experience. The keynotes and panels were complemented by two workshops, one on the convergence of theories, another on the adaptation of a common questionnaire on floods to the local context of earthquakes, as well as one fieldtrip. Researchers from the National Institute for Earth Physics in Romania and the University of Bucharest presented the intricate local factors that have to be taken into account when developing research tools for risk perception studies. They presented both the online tools they have developed and the guided tour that they regularly organise to raise risk awareness, while presenting the urban development strategies implemented in response to historical earthquakes.

# BUCHAREST ACTION POINTS

Drawing from the conference activities, the participants pinpointed the following actionable objectives to shape the course of future research in the fields of risk perception, adaptive behaviour, and disaster management:



## LESSONS LEARNED



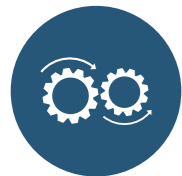
### Collectively adapting the questionnaire

There is a considerable convergence potential in the field. We have proven that when collectively adapting a questionnaire to another case study, context, hazard. We are collectively making convergent decisions, it's a technique that should be repeated and developed for future studies



### Involving policy makers

It is important to account for the perspective of the policy maker from the outset, to bring them all to the table and to thoroughly negotiate the research design



### Working with local practitioners

It was important and illuminating to have local practitioners around the table to contribute to the research design



### Collectively going on the field

It could become an expedition, involving local first-responders, decision-makers and policy-makers, visiting the city, collectively adapting the research design and then running a survey



### Identifying overlapping constructs

It would be interesting to identify overlapping constructs within existing theories or at least start mapping them out as a first step



### Understanding the ecosystems

It remains critical to understand the ecosystem people are living in if you want to influence their risk perception and behaviour

## OPEN QUESTIONS

1

How to stimulate knowledge transfer and create societal impact using the analysis of risk perception and adaptation? Whose task is this?

2

How to effectively communicate research results to local communities and stakeholders?

3

How to account for the conflicting perspectives of stakeholders? What role does social media play in this case?

4

How to integrate cascading and compounded risks, or indirect risks into risk perception studies?

5

How to approach long-term adaptation measures specific to different hazards, especially related to climate change?

6

Is it still reasonable to hold on to the shallow connection between increased risk information/communication, knowledge and awareness on one hand, and the expected protective actions on the other?

7

What are the under-used theories focusing on the social/collective level rather than the individual one? Should they be made a priority for further exploration?

8

How to build theories on evacuation or associated issues, based on already existing theories?

9

Is the misuse/misunderstanding of research findings and terminology a noteworthy concern?

10

What can be done to provide the scientific community with research training on the theoretical background of risk perception and adaptive behaviour?

11

What should researchers do when they cannot find a theory for the research questions proposed for investigation?

12

Is it possible to build an overarching meta-theory to be used in risk perception and adaptive behaviour studies?

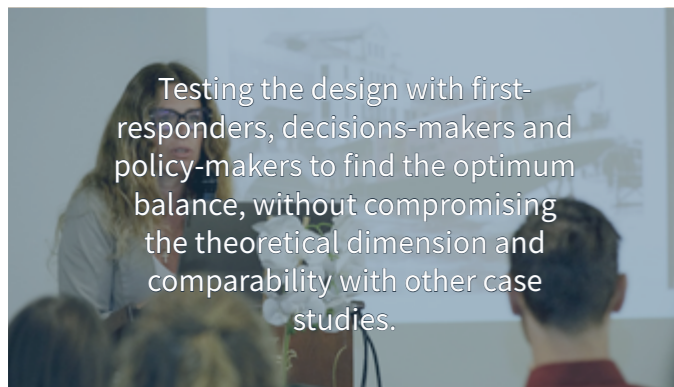
# RECOMMENDATIONS ON DESIGNING SHARING AND TESTING QUESTIONNAIRES



Research design should be built on solid theoretical foundations, too few studies explain how the theoretical framework informed the empirical analysis.



Co-creation can improve the research design and usefulness, involving local knowledge, first-responders, decision-makers, and policy-makers from the outset, alongside scientists with various backgrounds from different countries.



Testing the design with first-responders, decisions-makers and policy-makers to find the optimum balance, without compromising the theoretical dimension and comparability with other case studies.



The divergent views of stakeholders need to be taken into account when designing the questionnaire and analysing the results.



While design questionnaires should be adapted to the multi-hazards and local context, caution is recommended in order to maintain the theoretical foundation, and ensure comparability across different studies.



Potential strategies to improve cross-country empirical comparison include the elaboration of minimum standards, shared questionnaires, or common questions for the Euro-Barometer, the European Social Survey and/or existing longitudinal surveys.

# KNOWLEDGE GAPS



### A more explicit engagement of theories

- In research on risk perception and adaptive behaviour only a small proportion of studies explicitly formulate their theoretical basis and how it informed their empirical analysis
- A lack of awareness and training about the existence and relevance of theories in research on risk perception and adaptive behaviour
- An index of all theories, their construct and what they address is missing, this would stimulate incremental or revelatory advancements, choosing the theories best suited to the research questions, building on existing theoretical frameworks, and/or developing new frameworks allowing counter-intuitive findings
- The assumed connection between increased risk information / communication, knowledge / awareness, agency and the expected protective actions is still not based on robust evidence, while refutation case studies seem to be accumulating

### Supporting local practitioners and resolving misunderstandings

- Responding to the pressing demands of practitioners in a specific context is too often favoured over contributing to the advancement of science, the accumulation of evidence and strengthening theoretical foundations
- We all want to talk about science and theories, but at the end of the day, what is important for people, to improve their lives?
- Start from questions that haven't been asked a lot, maybe the lack of empirical knowledge on certain questions derives from the lack of the theory to explore the question
- Many paradoxes have been raised over the years, the counter-productive dimension of our research recommendations needs to be studied more systematically, as well as the potential misunderstanding or misuse of the research findings

### Adapting theories or building an overarching meta-theory

- Sometimes we may face a lack of theories to address the questions we want to ask. It could be more beneficial to focus on identifying gaps in knowledge rather than solely on theories
- We need to adapt theories from different fields, like PADM, or build an overarching meta-theory
- We currently face a deficiency in theories related to evacuation, and numerous challenges persist in adapting existing theories to the context of evacuations
- We need to expand the theoretical frameworks to account for the perception of cascading hazards / disasters, and derived impacts on adaptation
- Further efforts are required to link disaster risk reduction and climate change adaptation, we need to account for the perception of accelerating and worsening sequence of disasters, due to climate change

### From the individual to the collective level

- There is an increasing tension between the most-in-use theories that have an individual focus and the unknown (essential and inexistent?) theories moving from the individual to the collective side of risk perception and/or adaptive behaviour
- What lesser-used theories with a focus on the social or collective rather than individual level should we not forget to explore?
- further investigation is needed to understand the impacts on policy, measures, and solutions resulting from the dominant reliance on theoretical frameworks based on methodological individualism rather than social processes
- There is a contradiction between the temptation to "rescue" theoretical frameworks treating people as isolated units acting for themselves, left alone with a burden they often cannot support, by "adapting" the theories, and taking seriously the mounting criticism of said theories, which would require moving on from the individual level to the collective level and a different set of theories

# Keynote presentations

Earthquake perception and emotional distress in Romania, Iuliana Armas (University of Bucharest, Romania)

Social and psychological impacts on communities of severing the historical link to territories, Ricardo Garcia Mira (University of A Coruna, Spain)

From survey data to high-resolution maps of urban flood risk perception and evacuation behaviour, Samuel Rufat (CY Cergy Paris University, France)

How did the recent earthquakes in Turkey and Romania influence risk perception and preparedness? Dragos Toma (University of Bucharest, Romania), Alexandru Tiganeşcu (National Institute for Earth Physics, Romania)

## FIELDTRIP

Bucharest and earthquakes, by Dragos Toma (University of Bucharest, Romania) and Alexandru Tiganeşcu (National Institute for Earth Physics, Romania) is also available as an [online tool](#)

## PREVIOUS CONFERENCE

Rufat, S., Uhing, K., Vollmer, M., Fekete, A., Bianchi, G., Kuhlicke, C. (2022). Conclusions of the Third European Conference on Risk Perception, Behaviour, Management and Response. H2020-833671. Fraunhofer-Institute, Berlin, Germany. <https://hal.science/hal-04117500v1/document>

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