

Abstract submission form

Speaker or corresponding author

First name	Catrinel
Name	Turcanu
Organisation	SCK CEN
Country	Belgium
Email address	cturcanu@sckcen.be

Abstract information

Presentation type [1]	Both
Select one or more topic [2]	Operational aspects: from theory to practice Preparedness for a sustainable recovery: including non radiological consequences and effects
Subject of the presentation	
Participation NERIS Young Scientist Award [3]	No
Proceedings of the Workshop 2020 [4]	No

[1] Copy paste:

Both (The programme committee will choose oral or poster)

[2] Copy paste one or more subject(s):

Operational aspects: from theory to practice

Disaster management and resilience in communities

Preparedness for a sustainable recovery: including non radiological consequences and effects

Updating handbooks, guidelines and recommendations to support decision making

Future research needs

Other

[3] To promote young researchers, the NERIS platform awards a free participation to the 7th NERIS Workshop (2021) and diploma to the winner of the prize. To participate you must be under 35 years old in May 2020. **Answer: no.**

[4] You can publish a full paper in the proceedings of the Workshop 2020 to be published by the end of 2020. The full paper deadline is 31st July 2020. If you're not sure yet, tell us and we'll come back at you on this after the Workshop. **Answer: no.**

**Social, ethical and communication aspects of uncertainty management-
Findings from the CONFIDENCE project**

*C. Turcanu¹, T. Perko¹, S. Baudé², G. Hériard-Dubreuil², N. Zeleznik³, D. Oughton⁴, Y. Tomkiv⁴, R. Sala⁵,
C. Oltra⁵, V. Tafili⁶, L. Benighaus⁷, M. Maitre⁸, T. Schneider⁸, P. Crouail⁸, T. Duranova⁹, I. Paiva¹⁰*

¹SCK•CEN, Belgian Nuclear Research Centre, Belgium

²MUTADIS, France

³EIMV, Elektroinštitut Milan Vidmar, Slovenia

⁴NMBU/CERAD, Norwegian University of Life Sciences, Norway,

⁵CIEMAT-CISOT, Sociotechnical Research Centre, Spain

⁶EEAE, Greek Atomic Energy Commission, Greece

⁷DIALOGIK, Germany

⁸CEPN, Centre d'étude sur l'Évaluation de la Protection dans le domaine Nucléaire,, France

⁹VUJE, Slovakia

¹⁰IST, Instituto Superior Técnico, Portugal

Within the European project CONFIDENCE, a multi-method approach was undertaken to investigate the uncertainties faced by publics and emergency and recovery management actors, and how do these uncertainties impact their decision-making processes; to elicit stakeholders' preferences and priorities for uncertainty management; to highlight the ethical implications of uncertainty management; to develop and test selected communication tools; and to provide advice for addressing social uncertainties in emergency preparedness, response and recovery. The methodology included document and media analysis of past incidents and accidents, mental models research, surveys, observations of emergency exercises and workshops.

This contribution summarises the main results.

Results showed that nuclear emergency management is dominated by decisions under uncertainties, and that non-experts face a wide range of uncertainties, for instance what are the health impacts for their family members, what to do in case of an accident and how will they be informed about it, whether emergency plans are effective in case of major accident, whether to leave the area, when to take iodine pills, whether to stay in a contaminated area or whether such a territory will become habitable again?

Poor communication between experts and emergency and recovery management actors, the perceived lack of transparency and untimely information provided to the public are major causes of uncertainty. Emergency and recovery plans need a continuous reality check in order to identify whether the needs and concerns of the affected people are taken into account.

Moreover, national emergency and recovery strategies and plans should consider and support the capacities of local actors to deal with an emergency or post-accident situation, for instance by carrying out independent measurements of radioactivity.

Identification of societal uncertainties contributes to creating awareness about potential challenges and improving decision-making under uncertainty in nuclear emergencies. Uncovering these uncertainties in the preparedness phase should stimulate reflection on ways to improve emergency planning and can be an incentive for engagement of local communities.

Finally, communicating about uncertainty is necessary and requires identifying facts relevant to recipients' decisions and characterisation of relevant uncertainties, as well as testing the effectiveness of potential messages.
