

Monday, 06 September, 2021

[closed meeting for RadoNorm GA](#)

08:45 Connection to virtual room and technical checks

09:00 **Session 1: Welcome and introduction + WP1 update**

Coordinator U. Kulka - 10'

WP1 update coordination team - 20'

09:30 **Session 2: WP2-A better characterization of exposure to radon and NORM**

- **General introduction**, Laureline Février, 3min
- **Reducing uncertainties in radon measurements**, Sebastian Feige – 10 min
- **Transport of radon in the environment**, Anne-Liv Rudjord – 10 min
- **Exposure to radon in buildings**, Géraldine Ielsch – 10 min
- **Improvement of methods to identify high indoor radon levels**, Francesco Bochicchio – 10 min
- **Overview of NORM sites and exposure scenarios in Europe and their characteristics**, Jelena Popic – 10 min
- **Identifying biological and chemical parameters controlling the transfer of NORM to plants to derive more robust transfer factors (T_F)**, Virginie Chapon – 10 min
- **Identification of geochemical and biological processes controlling NORM mobility to derive more robust solid/liquid distribution coefficient (K_d)**, Thuro Arnold & Susanne Sachs – 10 min
- **Updating approaches for modelling long-term prediction of NOR transfer in the environment**, Laura Urso – 10 min

10:45 **Session 3: focus on WP3**

- **The effects of lung diseases on absorbed dose and dose distribution in the lung** Péter Fűri (EK)-15 min
- **Uncertainties affecting the reliability of ICRP's dose coefficients with regards to exposure to Radon and NORM** Thomas Makumbi (KIT)-15 min
- **Dose distributions in human lungs** Árpád Farkas (EK)-15 min

11:30 **Break**



12:00 Session 4: focus on WP4

- **General introduction on research on Effects and Risk Assessment**, Sisko Salomaa – 6 min
- **Interaction between radon and smoking in lung cancer**, Ladislav Tomášek – 6 min
- **Radon-related risks other than lung cancer among adults**, Michaela Kreuzer – 6 min
- **Studies on the association of radon and childhood leukemia and brain cancer**, Anssi Auvinen – 6 min
- **Uncertainties in radon risk assessment due to thoron**, James Marsh – 6 min
- **Mechanisms of radiation action in lung cancer among never smokers**, Benjamin Besse/Laura Mezquita – 6 min
- **Consideration of various sources of uncertainties in radon induced lung cancer risk inference**, Klervi Leuraud – 6 min
- **Risks from radon and NORM in drinking water**, Lindis Skipperud – 6 min
- **Effects and mechanisms of action of combined exposures to radon or NORM and other stressors relevant of true exposure situations of humans and biota**, Deborah Oughton – 6 min
- **Assessment of combined toxicity and cumulative risk**, Olivier Armant – 6 min

13:00 Break

14:30 Session 5: Improvement of radon control technologies, mitigation strategies and methods applied in dwellings, workplaces and NORM involving industries

WP 5 Mitigation – Introductory speech, Aleš Froňka – 3 min.

Current status of task 5.1 focusing on an overview of regulatory approaches to control radon in workplaces and dwellings, Angelika Kunte – 10 min.

Innovative radon control technologies and strategies for mitigation systems in buildings, Ivana Fojtíková – 10min.

Evaluation of radon mitigation systems with respect to their variability, sustainability, Anne-Liv Rudjord – 10 min

Radon reducing and control technologies applied in underground workplaces, Kateřina Navrátilová Rovenská – 10min.

Mitigation strategies and technologies applied in NORM involving industries and remediation of legacy sites, Boguslaw Michalik – 10 min.

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15:30 Session 6: focus on WP6

WP6 Objectives T. Perko – 5 min.

Methodological pitfalls in social science on radon/NORM Y. Tomkiv – 10 min.

Public opinion surveys on radon/NORM: first results on perceptions, view and opinions M. Muric – 10 min.

RadoNorm citizen science projects S. Long/M Martell – 10 min.

Investigating the radon spa controversy: radon as threat versus treatment? R. Geysmans – 10 min.

Q&A – 5 min.

16:20 Session 7: focus on WP7, WP8 and WP9

WP7 Education and Training Activities, A. Wojcik 15min

WP8 Communication, dissemination and exploitation activities, N. Zeleznik, P. Schofield 15min

WP9 Ethics in RadoNorm research G. Meskens – 10 min.

17:00 Session 8: general discussion

all

17:30 End of meeting

Tuesday, 07 September, 2021

[open event for all RadoNorm and stakeholders](#)

08:45 Connection to virtual room and technical checks

09:00 Welcome and introduction

Coordinator 30'

09:30 Session 1: Progress reports

WP2 A better characterization of exposure to radon and NORM, Laureline Février 30'

WP3 Report on the activities in the Dosimetry work package, B. Madas 30'

10:30 Break



11:00 Session 1: Progress reports (cont)

WP4 Research addressing Effects and Risk Assessment, S, Salomaa 30'

WP5 Improvement of radon control technologies, mitigation strategies and methods applied in dwellings, workplaces and NORM involving industries, A. Fronka 30'

WP6 New insights from research on societal aspects of radon and NORM, T. Perko & R. Geysmans 30'

12:30 Break

14:00 Session 2: Stakeholders' priorities

Objectives

- Understand stakeholders' perspectives, priorities, challenges
- Discuss opportunities for stakeholder collaboration

Stakeholder perspective – Authorities

APA - Portuguese Environment Agency

Speaker: two presentations:

Radon by Heloísa Soraia de Carvalho Fonseca, NORM by Fátima Alexandra Barata Antunes Batista
20'

- Perspective, priorities, challenges *Opportunities/risks*
- *Area for collaboration/engagement*
- Q&A

Stakeholder perspective - Scientific community and researchers

IGAG National Research Council of Italy - Institute of Environmental Geology and Geoengineering

Speaker: Giancarlo Ciotoli **20'**

- Perspective, priorities, challenges
- *Opportunities/risks*
- *Area for collaboration/engagement*
- Q&A

Stakeholder perspective - Implementers

Radonova Laboratories AB - Sweden

Speaker: Jose Luis Gutierrez Villanueva **20'**

- Perspective, priorities, challenges
- *Opportunities/risks*
- *Area for collaboration/engagement*
- Q&A

NORM questionnaire

Speaker: Laura Urso, Jelena Popic and Bogusław Michalik **15'**

Preparing a survey on NORM: goals and challenges

15:15 break



15:30 Session 3: Panel Discussion with AB (IARC, ICRP[IRSN], IRPA, UNSCEAR)

To discuss:

- *Norm questionnaire* and
- *main challenges in radon and NORM area and potential for collaboration* with RadoNorm

16:30 End of meeting

Wednesday, 08 September, 2021

[REGISTER FOR WEBINAR](#)

RadoNorm workshop (WP6)

Beyond scientific disciplinary boundaries: the future of radiation protection research and practice?

Objectives

Can we enrich radiation protection research and practice with the transdisciplinary approaches and how? The aim of this interactive session is to explore the meaning of transdisciplinary and its role in shaping the future of radiation protection research and practice. This session entails live webinar with the prominent academics from different disciplines, a range of case studies from the field of radiation protection and face to face workshops organised in Belgium by Belgian Radiation Protection Society and by RadoNorm project online.

10:30 What is multi- and transdisciplinarity in research and practice? What is the motivation behind transdisciplinarity? What are the common challenges and how to overcome them? The invited speakers will answer these and many other questions from their perspectives of their academic background and personal experiences.

moderated by Yevgeniya Tomkiv (NMBU)

- **Prof. Roderick John Lawrence, University of Geneva, Switzerland**
- **Mr. Gaston Meskens, SCK CEN, ..**
- **Prof. Ortwin Renn, University of Stuttgart, Germany**

11:15 short Break



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11:30 Case studies: Transdisciplinary projects as introduction to workshop

moderated by Yevgeniya Tomkiv (NMBU)

Short presentations of multi- and transdisciplinary projects in radiation protection research and practice (radon, medical, nuclear waste, recovery after nuclear emergency).

12:30 short Break

13:00 Workshops

Belgium (moderated by Bieke Abelshausen and Tom Clarijs) and online (moderated by Gaston Meskens and Robbe Geysmans) (closed for the RadoNorm members – limited to 20 participants)

This will be followed by groups work will get tasks

- What is transdisciplinary research/practice for you?
- What are opportunities and pitfalls of multidisciplinary research/practice?
- How to include other disciplines and citizens in your research/practice?
- How to collaborate with your colleagues from different disciplines and benefit from this collaboration?
- collaboration?

[REGISTER FOR WORKSHOP AT UCL Ottignies-Louvain-la-Neuve \(PHYSICAL PARTICIPATION\)](#)

[REGISTER FOR WORKSHOP online \(limited to 20 participants\)](#)

15:00 short Break

15:15 Reports from the two workshops, reflections together with the speakers from the webinar

[REGISTER HERE TO JOIN ONLINE](#)

16:00 End of meeting

