



**The RAMARO International Workshop  
Radon map (residential, geogenic, water) for Centre, West and Northwest  
Regions from Romania**

**October 21, 2016 – Babeş-Bolyai University,  
Faculty of Environmental Science and Engineering, Romania**



*Organized Jointly by*

**Faculty of Environmental Science and Engineering, Babeş-Bolyai University,  
Cluj-Napoca**

**Environmental Science Department, Sapientia Hungarian University of  
Transylvania, Faculty of Sciences and Arts, Cluj-Napoca**

**S.C. I.C.P.E. BISTRIŢA S.A.**

## RATIONALE

The workshop is considered a **special tribute to Professor Constantin COSMA, the deceased Coordinator/ Director of CNCSIS Project PN-II-PT-PCCA-2011-3.2-1064, Contract No. 73/02.07.2012 with the title „Radon map (residential, geogenic, water) for Centre, West and Northwest Regions from Romania- RAMARO”** (<http://www.radon.com.ro>). **Professor Constantin Cosma** was an outstanding personality of Romania, distinguished and appreciated teacher who formed generations of students, postgraduates and professionals. He remained in posterity as a physicist known for his intensive research in the field of radon.

**The main objective: How to perform systematic measurements of indoor air radon, soil and water throughout Romania, according to Council Directive 2013/59 Euratom?**

Radon is considered one of the most important indoor air pollutants (second cause of lung cancer, after smoking), with harmful health effects (World Health Organization). The new European regulations recommend a radon concentrations lower than 300 Bq/m<sup>3</sup> for residences, public institutions and workplaces (Council Directive 2013/59 Euratom).

**Secondary objectives:** to raise awareness of the economic environment (especially in building materials and construction) on the development and implementation of remedial techniques (Radon Mitigation) in homes with elevated levels of radon and to raise awareness of the society regarding the impact of population exposure to radon and associated health effects.

This International Workshop will bring together professionals from various fields with an expertise in radon monitoring. Representatives of companies that sell radon monitoring equipment are also welcomed.

This meeting is a not-for profit one: we only offer the opportunity of people working in this field to come together, share their experiences, and look for possible improvements!

## TOPICS

- **Radon Mapping and Radon Action Plans** (*including implementation of BSS*): Mapping strategies; Radon Action Plans; approaches to radon risk; Radon risk mapping on various scales including geogenic mapping and detailed measurements; Radon prone areas; How to define and use radon prone areas for the purpose of BSS (will the approach to workplaces differ from dwellings?).
- **Methods of measurement for both radon and thoron**: devices, metrological aspects Measurement errors; accuracy of measurement; comparison measurements; radon/thoron time series analysis; QA and QC programs; etc.
- **National programs and projects**: Public relation; national and other radon programs; legislation and strategies; motivation for mapping and remedy; international collaboration; international comparisons.
- **Radon in civil engineering**: Cost benefit and cost effectiveness of radon remediation, methods of remedial measures; ventilation systems and preventive measures

## VENUE

The workshop will be held in Cluj-Napoca, at Faculty of Environmental Science and Engineering, Babeş-Bolyai University, in The “Iustinian Petrescu” Conference room, 30 Fantanele Street, Cluj-Napoca

## Host Institution

**Faculty of Environmental Science and Engineering, Babeş-Bolyai University, Radon Laboratory**

Currently, our laboratory is the only complex laboratory in Romania with a wide international recognition, where complex and systematic studies of radon in all environmental factors are being carried out. A core of high-level scientific expertise, of European standards, in the field of radon research was created within our laboratory. The results will allow the creation of the first database on radon measurements in Romania and the completion of integrated radon maps using coordinates recommended by the European Commission (EC - JRC), which will be introduced in the European Atlas of Radon.

## PARTICIPANTS

Participation to this workshop is by invitation only. The organizers will issue personal invitations once the topic of your presentation has been agreed upon. There are no participation fees. Moreover, accommodation and meals expenses will be covered for the invited lecturers. Participants

are expected to cover their travel costs to Romania. However, international travel costs may also be supported by the organizers on request and on a case-by-case basis.

## **PUBLICATION**

This workshop was designed as a rather informal meeting of radon monitoring professionals.

## **SCHEDULE**

### **PRELIMINARY PROGRAM**

#### **21 October 2016**

**Morning (9-13): registration, opening meeting**

**Afternoon**

**(15-17): invited lectures**

**(17-18): final meeting (round-table debates and conclusions)**

## **DEADLINES**

**October 10:** confirmation of interest, send us the title of your presentation, deadline for sending abstracts (max. 1 page including figures and references)

**October 15:** release of the second circular with final program and all technical details

## **PRESENTATIONS**

All presentations will be invited lectures and are supposed to be 20-30 minutes long followed by 10-20 minutes of discussions. The official language of the workshop is English and no simultaneous translation will be available. Additional posters may be displayed, but the space is limited and there will be no time slot scheduled for poster presentation. Instead, participants are encouraged to interact (including poster discussions) during the breaks between presentations.

## **CONTACT**

For any inquiries, please contact:

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<http://www.radon.com.ro>

We are looking forward to welcome you in the Cluj-Napoca academic city!