

11th INTERNATIONAL WORKSHOP on the GEOLOGICAL ASPECTS of RADON RISK MAPPING

Roundtable discussion (20-09-2012, starting 11,00)

Radon in soil gas - methods of soil gas sampling and their impact on measurement results, protocols for soil radon

As the base for the roundtable discussion, the following summary of items that can be discussed has been prepared and widen among the participants:

- 1. Methods of soil gas sampling and their impact on measurement results (what does the reported quantity “Rn conc. in soil gas” mean for diff. protocols? ... which air is actually sampled etc.)**
- 2. Whatever protocol used: important to keep to a strictly defined rule: no. of cores, geometry of design kept fixed or well documented; evaluation rules strictly kept fixed. Homework: harmonize with e.g. Neznal (CZ) or Kemski (DE) by indicating value or function for recalculation.**
- 3. It seems that the Neznal method works also in most no-Central European grounds, see e.g. exercise in Saelices, 2011. It may however be that the performance has still to be assessed: more intercomp. in S Europe?**
- 4. Permeability measurements.**

Conclusions:

Due to the interest of participants, mainly the first point was discussed, i.e. the discussion was focused on methods for soil gas sampling and their impact on measurement results. Temporal changes of soil gas radon concentration in various climatic and geological conditions and the influence of soil gas sampling were discussed as well.

During the discussion, all participants informed the audience about their experience. The important, almost dominant role of a suitable sampling methods was confirmed, as the necessary starting point for correct measurement and correct assessment of temporal variability of soil gas radon concentration.

Possibilities of a methodological unification across (not only) European countries have been also discussed. The usefulness of international intercomparison measurements at reference areas in the Czech Republic was approved.

Moreover, Czech sampling method, protocol for soil gas concentration measurements as well as the method for radon risk classification based on soil gas radon concentration and permeability determination, were recommended to serve as an appropriate standard.