Radon Scout Home:
The Radon Recorder for your Home

Dipl. Phys. Christian Bartzsch

bartzsch@sarad.de

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Radon Scout Home is characterized by

- High-quality case
- Alphanumeric display
- Humidity and temperature measuring
- Battery/mains-powered operation
- USB port
- Time-resolved measurement
- Professional Software Radon Vision
- Developed & manufactured in Germany
- Based on the professional Radon Scout instruments

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Technical Data Radon Scout Home

Radon measurement	
Principle of operation	alpha-spectroscopy with PIN photodiode
Range	0 Bq/m3 ... 1000000 Bq/m³
Accuracy	< 2 %
Sensitivity	5.52 cph/(kBq/m³)
Stat. Error 1σ (1h measuring interval)	1 week @ 300 Bq/m³ 6 % 1 month @ 300 Bq/m³ 3 % 1 week @ 100 Bq/m³ 10 % 1 month @ 100Bq/m³ 5 % 24 hours @ 300Bq/m³ 15 %

The Radon Recorder for your Home

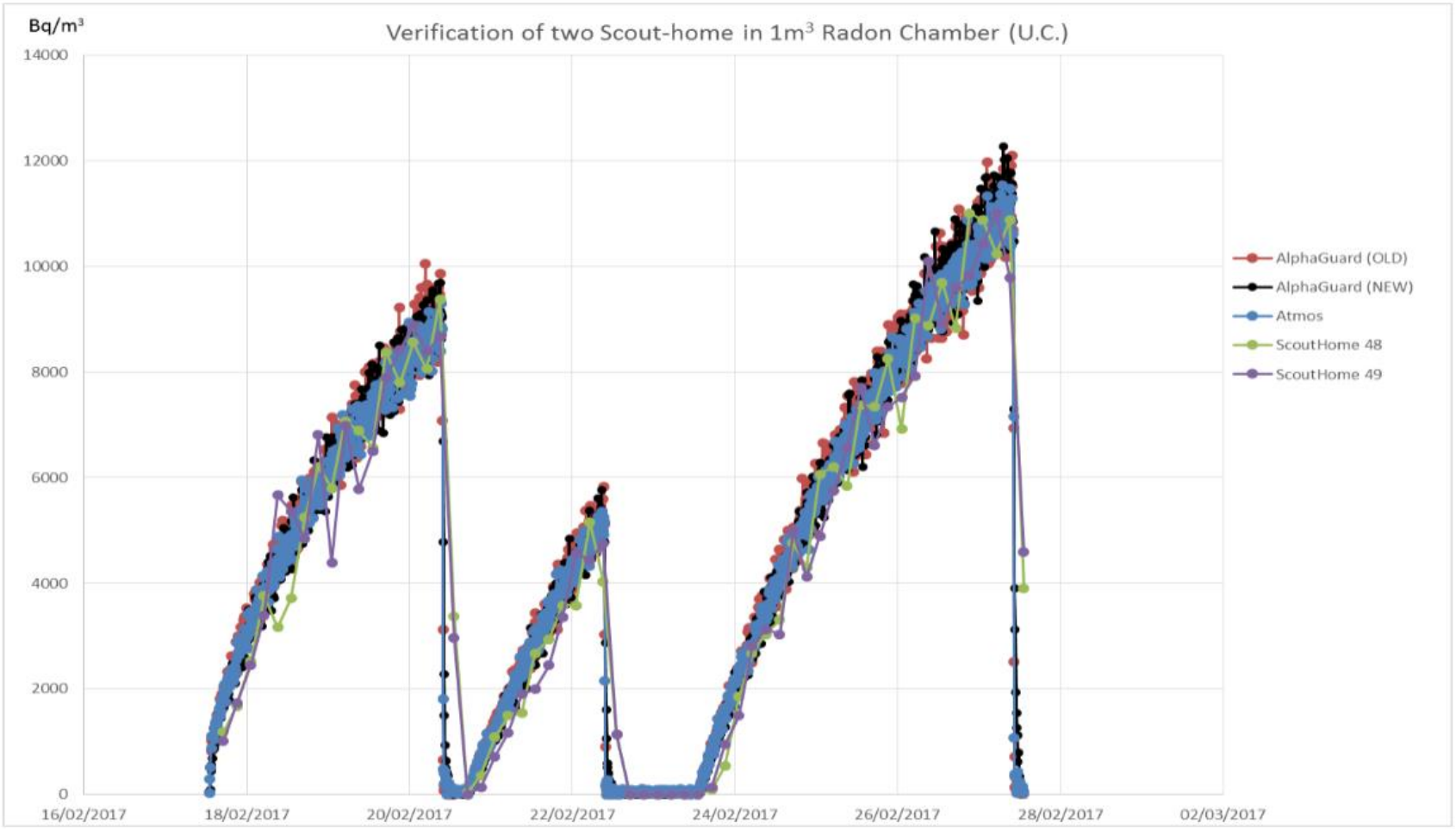
The detection limit of the Rn-222 activity concentration depends on the

- **measuring–chamber volume: smallest size**

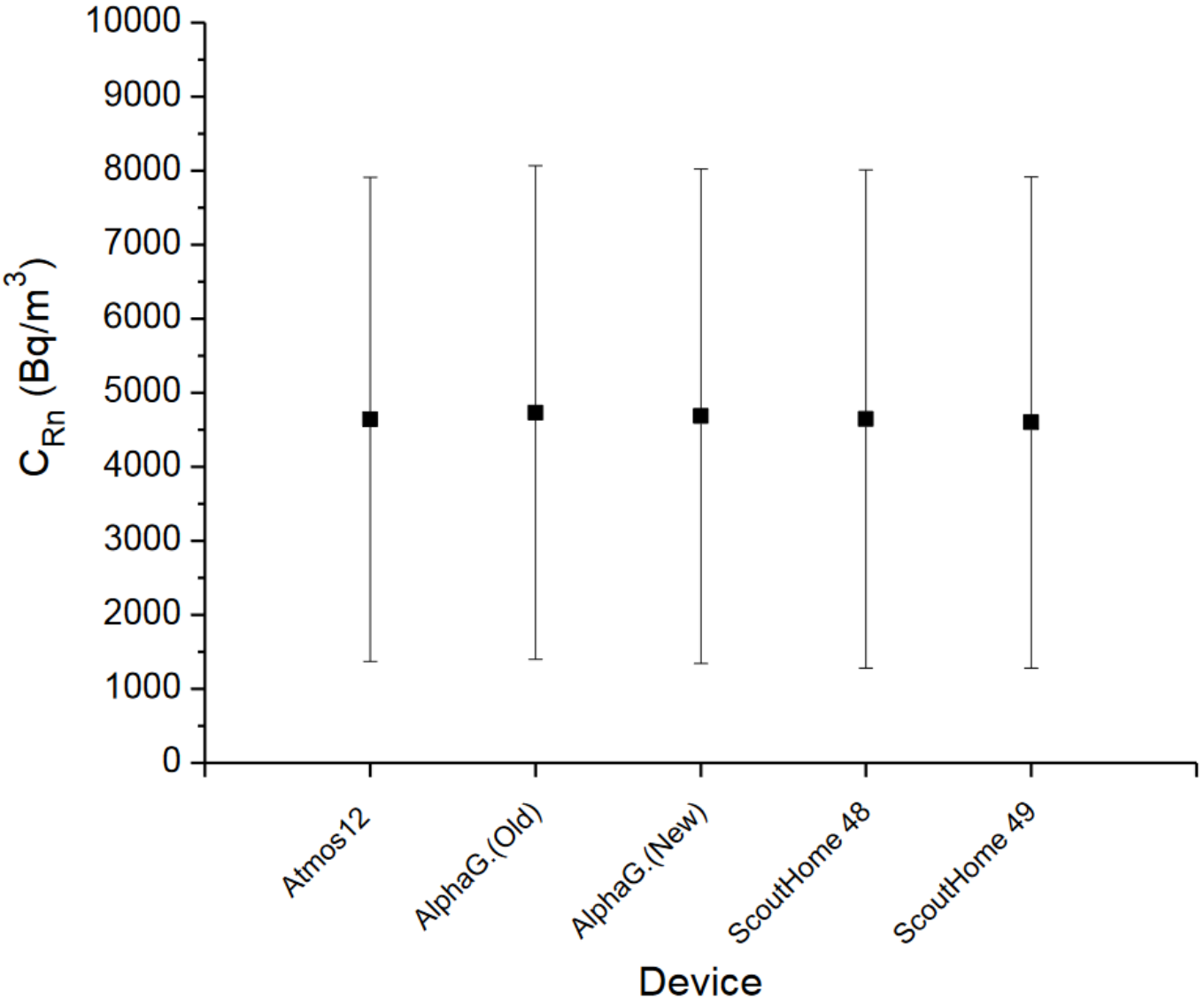
- **probability of detecting / sensitivity: 0.09 cpm/kBq/m³!**

- **electronic data processes of high pulse rates**

Temporal development of radon concentration in the chamber



Laboratorio de Radiactividad Ambiental, Verificación de los dispositivos de medida de radón en continuo RadonScout Home (SN: 48, 49), 01 Agosto 2017


10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
C_{Rn} (Bq/m^3)
Atmos12
AlphaG.(Old)
AlphaG.(New)
ScoutHome 48
ScoutHome 49
Device

Radon Scout Home

- Long period Indoor Radon measurements
- is a compact and low-cost instrument
- easy to use with slide switch
- large memory, additional sensors for ambient conditions (air pressure, CO_2)
- offers a broad spectrum of application possibilities

Utilitiy

- **used for long-term monitoring of the legal reference value for the radon concentration**

  → *RadonScout Home signals immediately when a room should be ventilated*

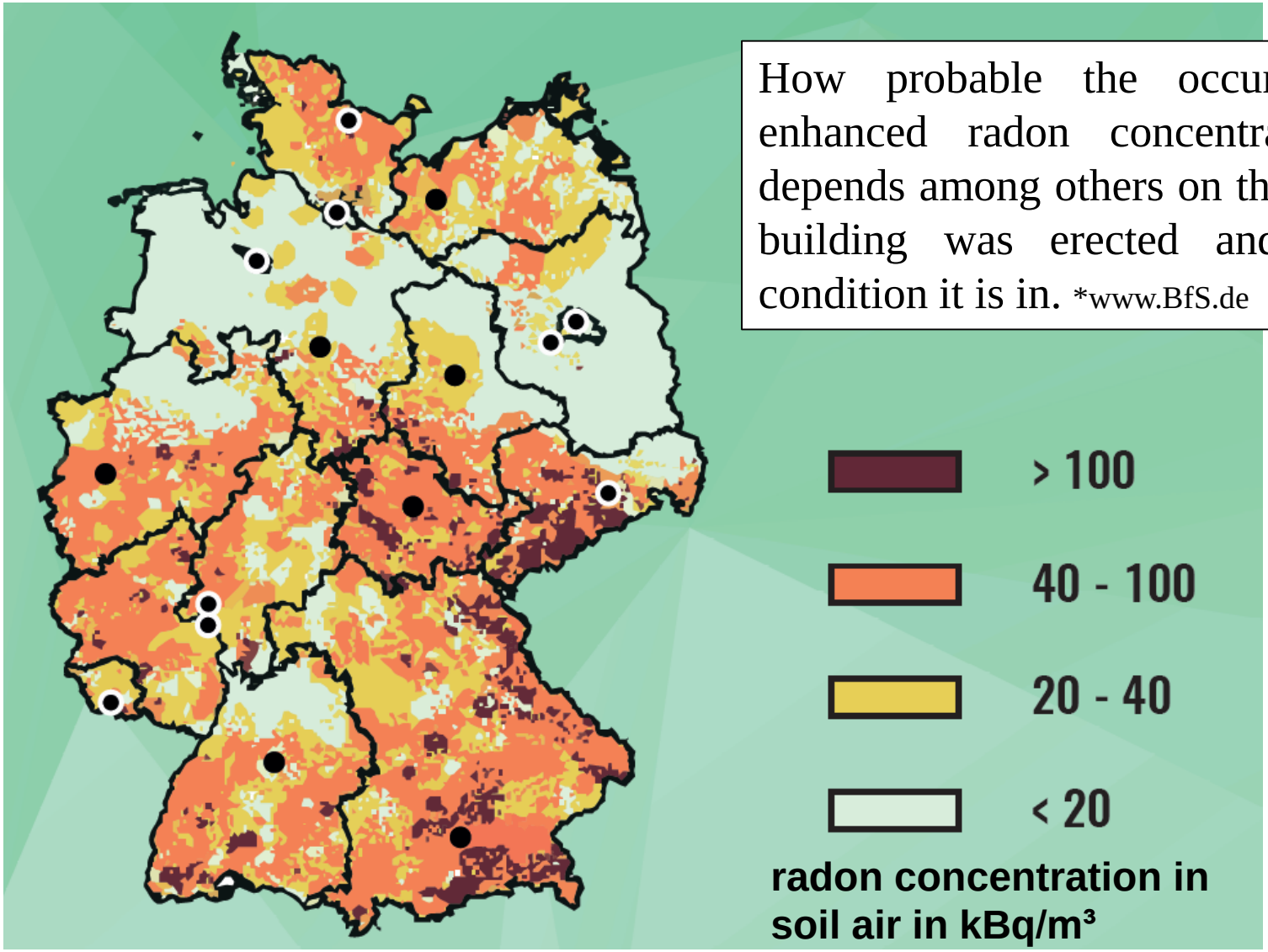
- **device is specially designed for homeowners as well as tenants, lessors and housing companies**

  → *Wherever you are, to ensure a healthy environment*

- **Sensors for temperature, humidity and optional air pressure and CO_2 concentration provide information about a healthy indoor climate**

  → *The most important parameters for air quality in rooms*

Overview of the radon concentration in soil air at one meter depth



How probable the occurrence of enhanced radon concentrations is, depends among others on the time the building was erected and on the condition it is in. *www.BfS.de

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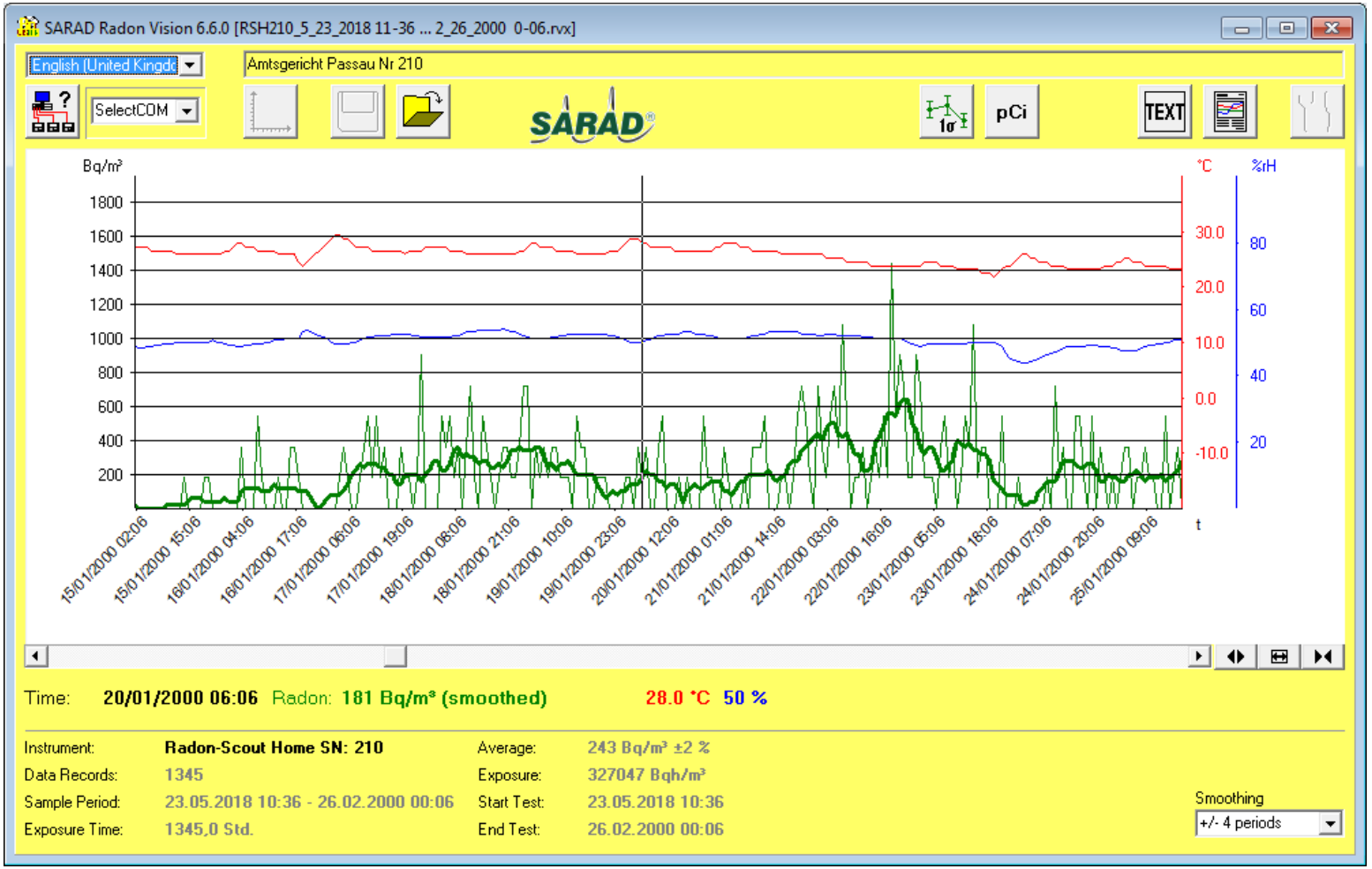
Measurements of Indoor Radon Concentration Levels



The radon concentration is subject to fluctuations, Situation cannot be characterized solely by a mean concentration value

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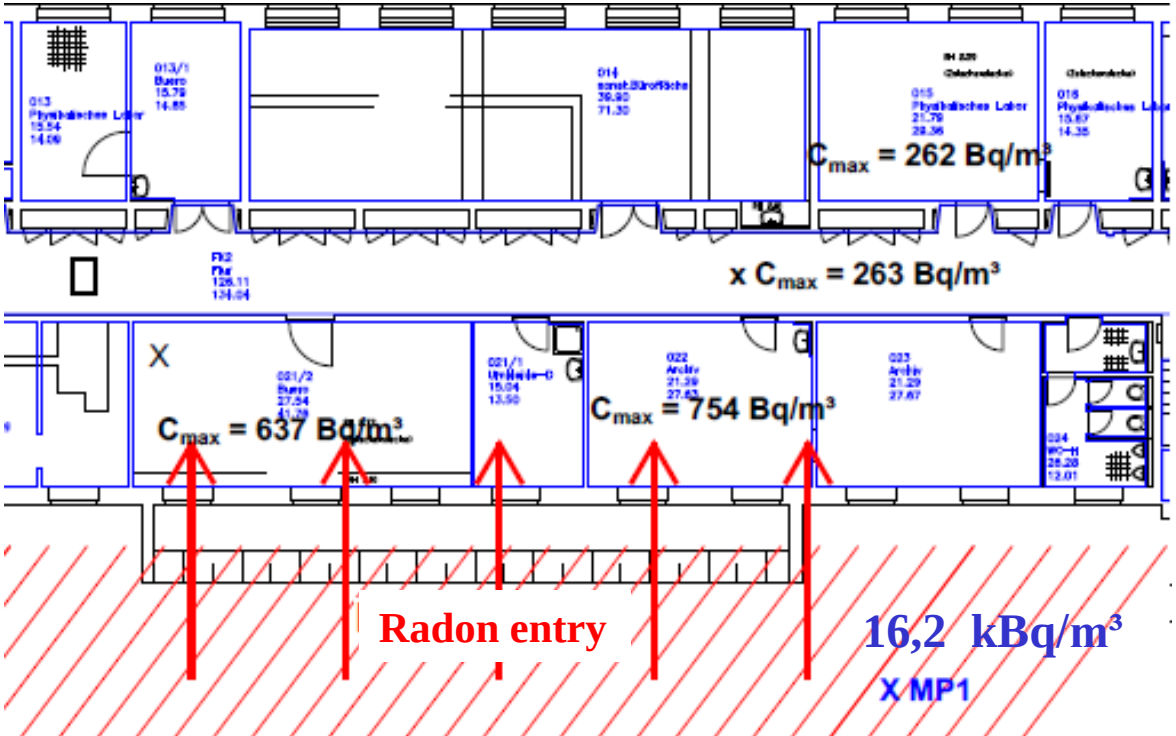
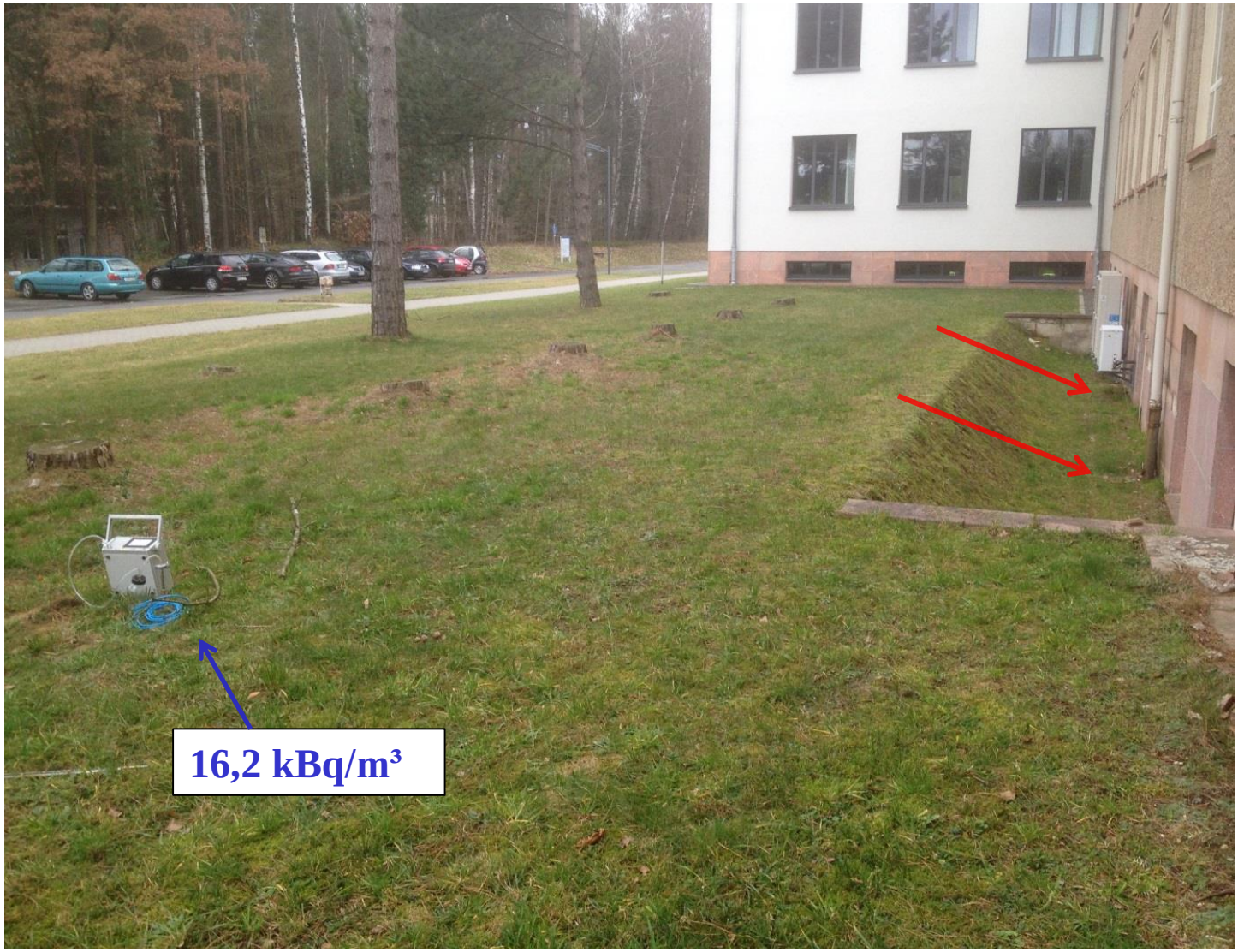
Searching/Position of highest radon concentration

Measurements in basement	Radonconcentration Bq/m³		
	minimum	average	maximum
Room 59	0	198	637
Room 56	48	275	754
Middle of corridor	10	75	263
Room 39	0	84	262




16,2 kBq/m³

Conclusion

These things are generally valid!

As many instruments you have, as many results you will get - it is only a question of your tolerance

There are no good or wrong detection principals - select the instrument always with respect to your conditions an requirements

Get familar with the measurement principal - make test measurements under varying conditions to check cross correlations

Develop standard operation procedures (SOP) for your measurement - even if the absolute values are not completely correct, the results are still comparable

Thank you for your attention