

The Austrian Experience in Radon Risk Communication

Klara Himmelbauer, Wolfgang Ringer, Angelika Kunte

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Austrian Agency for Health and Food Safety (AGES)



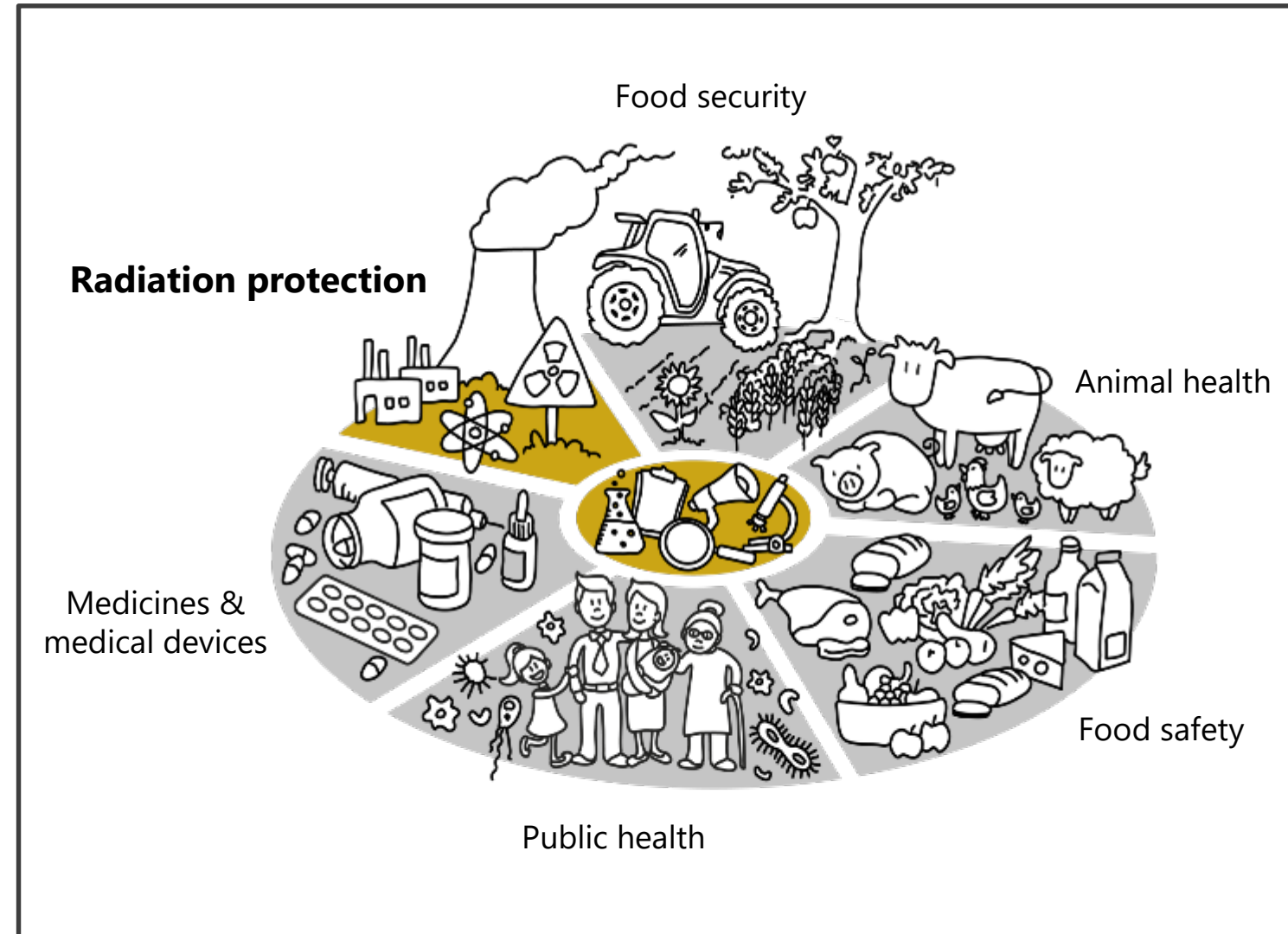
Organisation and legal basis



Owner

Republic of Austria,
represented by

- Ministry of Labour, Social Affairs, Health and Consumer Protection (BMASGK) and
- Ministry of Sustainability and Tourism (BMNT)



Department Radon and Radioecology



Tasks

- ↪ Emergency preparedness
- ↪ Monitoring of the environment and foodstuff
- ↪ **National Radon Centre of Austria** →
- ↪ Accredited laboratory

Tasks:

- Advising Ministry (EU-BSS)
- **Information, risk communication**
- Training and education
- Radon measurements (dwellings and workplaces)
- Austrian radon map, delineation of "radon areas"



Communicating Radon ...

... in Austria

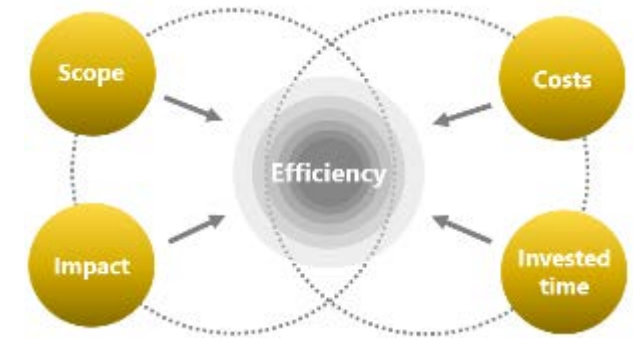


Task is not only informing the public but creating risk perception
→ which leads to action!

☞ **Austrian Radon Risk Communication Concept (2016)**

- Overall goal: reduction of radon exposure in dwellings
- Situation in AUT - Information on target groups, communication tools
- List of possible activities
 - Estimation of efficiency (scope, impact, costs, invested time) for each activity
→ decision-making tool whether or not an activity is probably efficient
- Activities being implemented each year
- Future goal: implementation of the radon topic in the educational system

→ Communication with and between many stakeholders required !!



Radon Risk Communication Activities

Communication channels

Activities **in progress**:

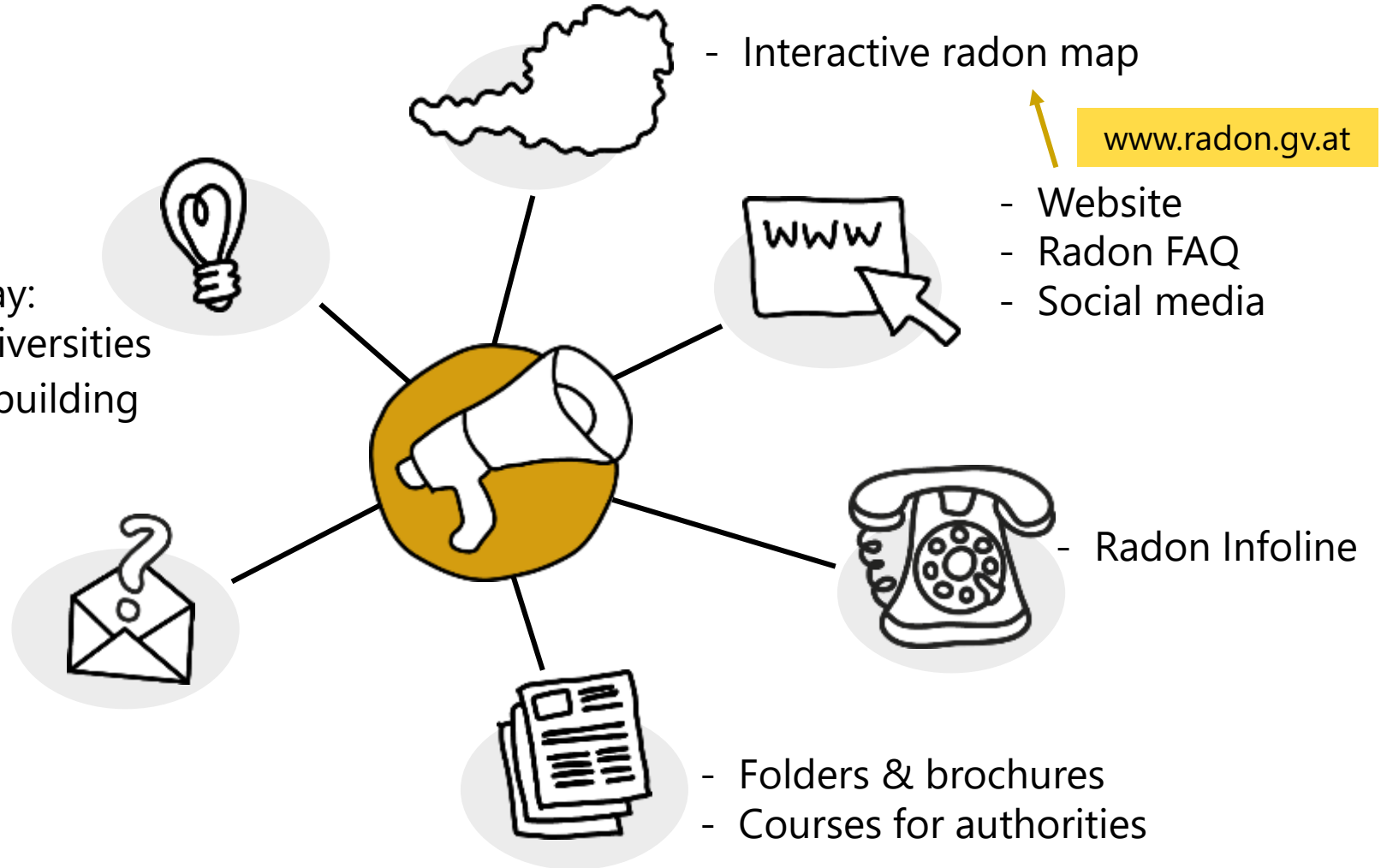
- Short video clip
- 07.11.2019 – Radon Day: event for schools and universities
- Nov. 2019: Course for building professionals

- E-Mail inquiries

radonfachstelle@ages.at



Monitoring of radon in the media



Situation in Austria

„The Good Radon“



Radon therapy & Radon in Spas

- ☞ Water supply for radon spas: very high radon concentrations can occur
- ☞ Outgassing of radon from healing water to the indoor air
 - Dose for patients negligible
 - Radon exposed workplace: dose estimation for workers required by law
- ☞ Opinion of many people: radon provides a health benefit !



World famous Gasteiner Heilstollen

Due to "Bad Gastein" and several other radon spas and health resorts, the general public opinion is that radon is "good".



Source: www.gasteiner-heilstollen.com



Source: www.gasteiner-heilstollen.com

Situation in Austria

„The Bad Radon“

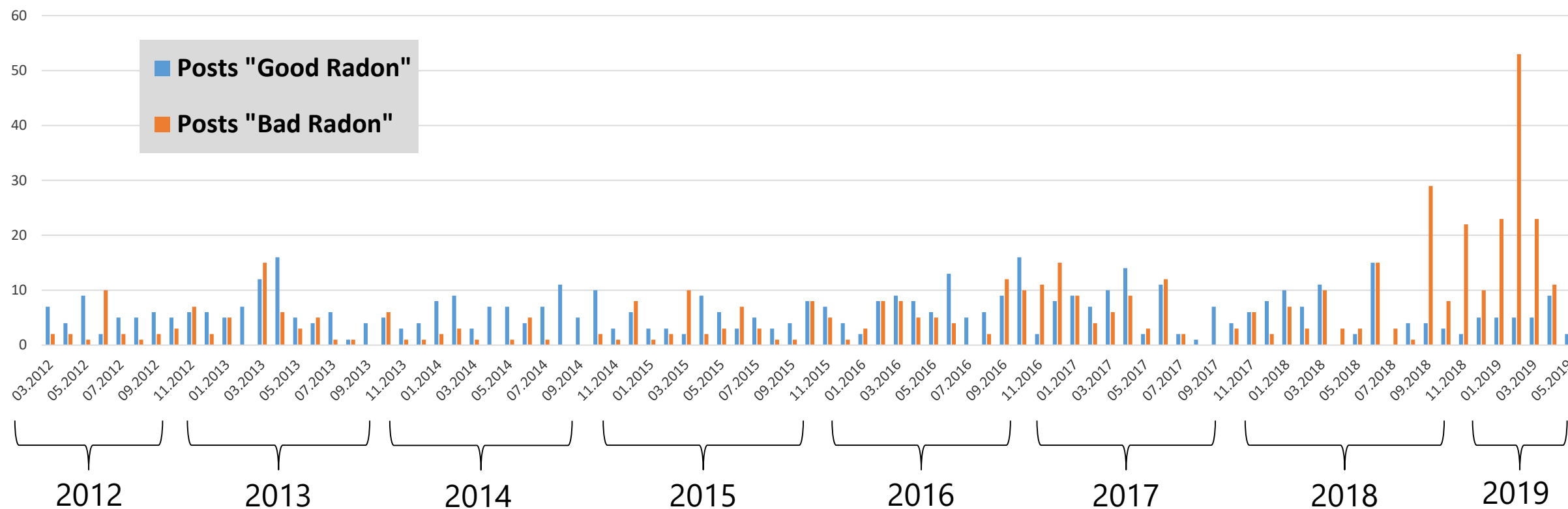


~ 400 deaths
caused by radon induced lung
cancer per year in Austria!

Monitoring of Radon in the media

Situation in Austria

Media Statistics "Good vs. Bad Radon"



Radon measurements in dwellings

Measures to improve quality and increase number of measurements

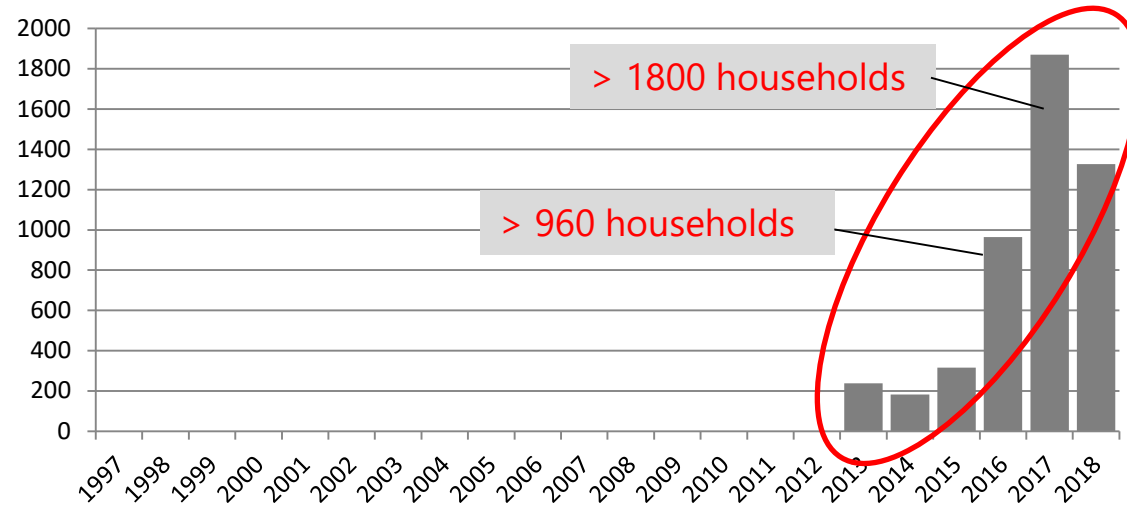
☞ Ministry of Environment (BMNT) funds measurements in private dwellings, if

- according to Austrian standards (6-months, questionnaire, protocol) and
- agreement that data can be stored in national data base

☞ Funded by the ministry since 2014, online registration

☞ Info material, brochures, video for public

Number of measurements in Austria



Service

Radonmessung im Privathaushalt

Veränderte Inhalte

Zuletzt geändert: 31.01.2019

Das Bundesministerium für Nachhaltigkeit und Tourismus ermöglicht bis auf weiteres die kostenlose Messung der Radonbelastung in österreichischen Privathaushalten, sofern folgende Bedingungen erfüllt werden:

- die gemessenen Räume liegen im Wohnbereich,
- der mitgelieferte Fragebogen wird ausgefüllt und retourniert,
- die Kosten der Radonmessung sind vom Antragsteller zu tragen.

Die Messung dauert etwa sechs Monate, beginnend im Januar (bei Anmeldung bis zum 15.12. des Vorjahres) oder Juli (bei Anmeldung bis zum 15.06.). Nur die empfangenen Bestellungen werden von der AGES – Fachstelle für Radon die Radondetektoren samt (freier Unteranleitung sowie ein Fragebogen per Post zugesandt. Die Radondetektoren können dann selbst in der Wohnung aufgestellt werden. Nach Ablauf der Messdauer (ca. 6 Monate) sind die Detektoren und der ausgefüllte Fragebogen zur Rücksendung ebenschnell nach Messende zu entsorgen (bitte beachten Sie, dass die Rücksendung ebenschnell nach Messende zu entsorgen ist) und unbrauchbare Messergebnisse nicht angenommen werden, insbesondere, welche später als drei Wochen nach Messende anlangen werden nicht mehr ausgewertet.

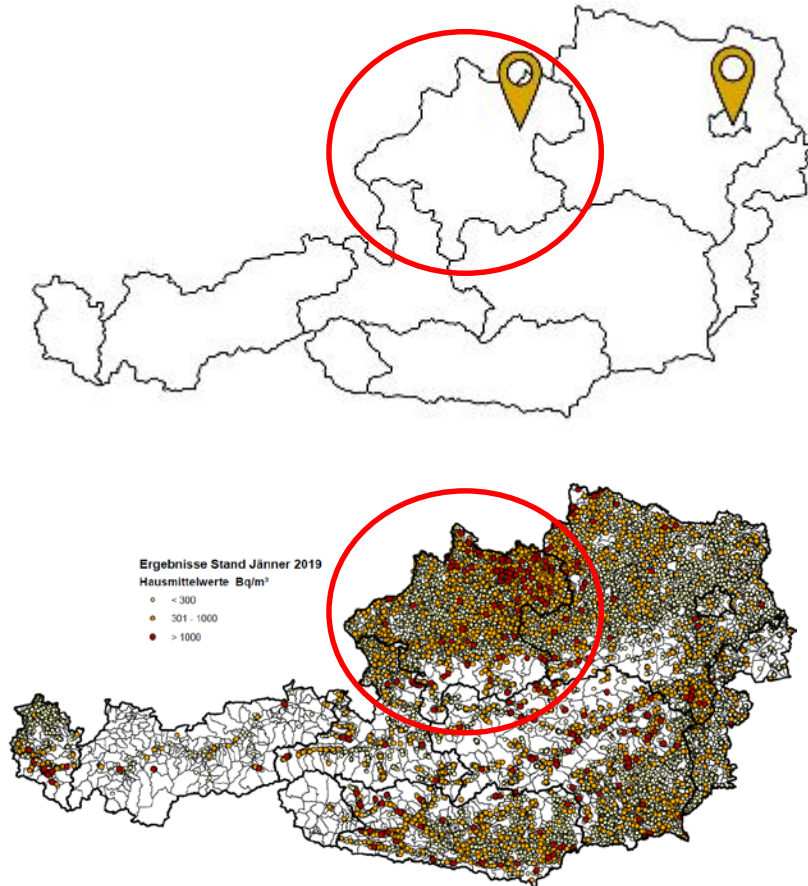


Radon measurements – Radon awareness

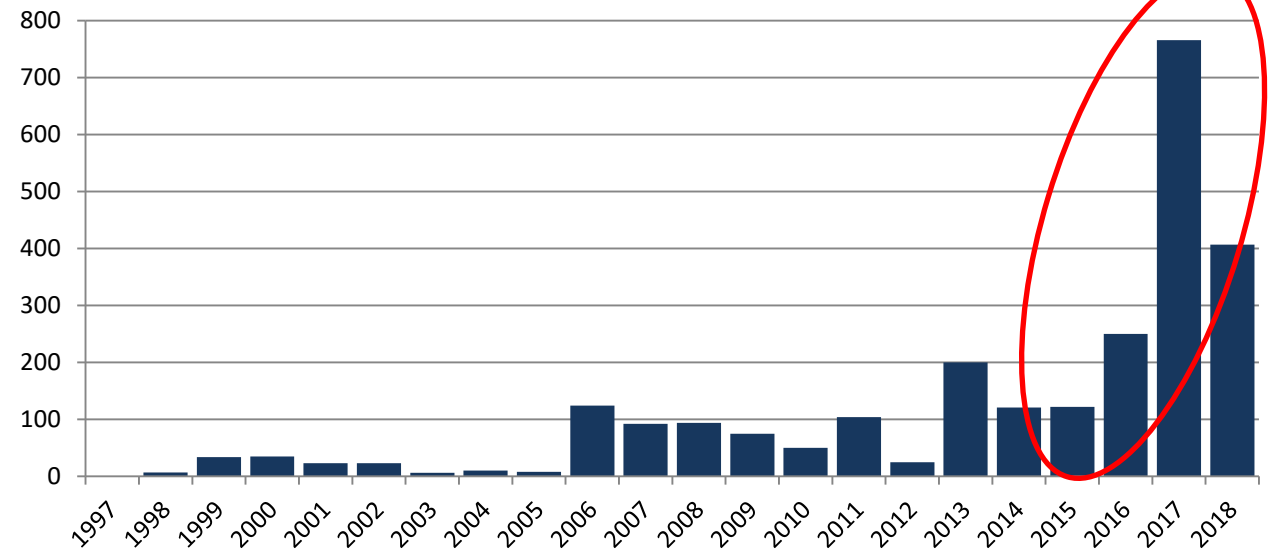
Experience in the province of Upper Austria

Free long-term measurements in dwellings without basement

- Funded by the province since 1997



Number of measurements –
Province of Upper Austria



Radon measurements – Radon awareness

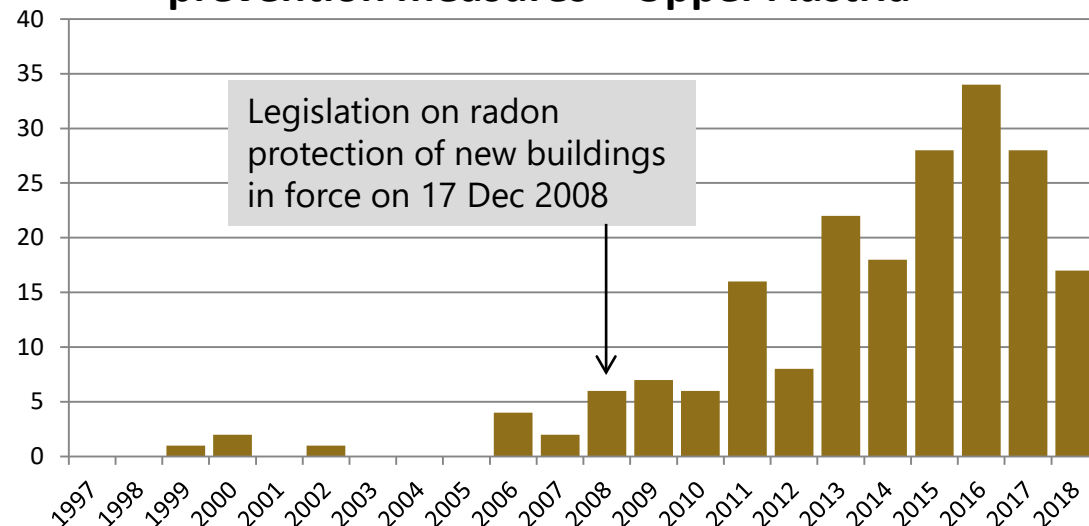
Experience in the province of Upper Austria

☞ Long-term measurement **free of charge since 1997**

☞ **Financial support** for

- **Remediation** → if radon level $> 1,000 \text{ Bq/m}^3$ → 20 % of remediation costs - max. 2,000 EUR
- **Prevention** (Radon drainage) → for new buildings in radon prone areas - 500 EUR

Number of funding applications for prevention measures – Upper Austria



→ Financial support by the authority since 1997

Remediation

→ **Only 15% of dwellings (above 400 Bq/m^3) asked for advice and support**

Prevention in new dwellings

→ **4,000 new dwellings per year**
~ **30/year with prevention**

From the psychological point of view ...

Experience in the province of Upper Austria



→ Financial support helps but not much change of behavior yet!

☞ Risk communication = **cognitive aspect + emotional aspect** (Hevey et al. 2017¹)

- People do not act rational about radon as a health hazard in their home
 - Emotions act as filters: → Radon is natural, it's always been there! → People feel safe in their home!
- Suggestions:
 - Radon testing should be "normal" and visible
 - More regulation by the authority
 - Financial support + high quality and trustworthy information

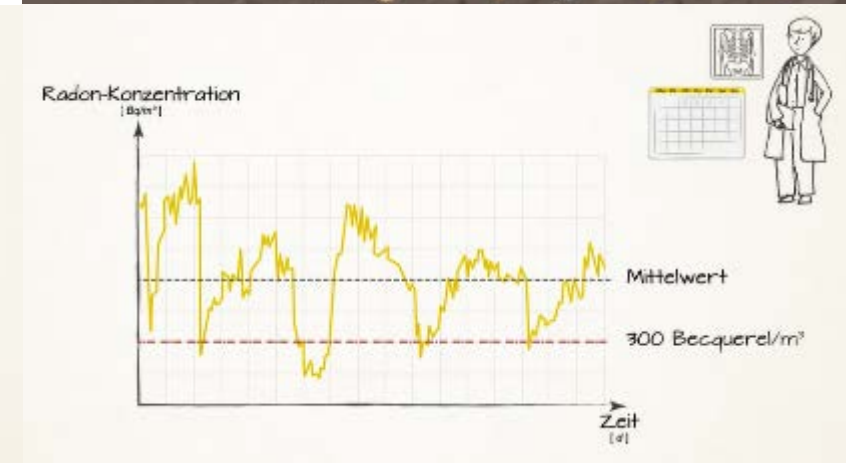
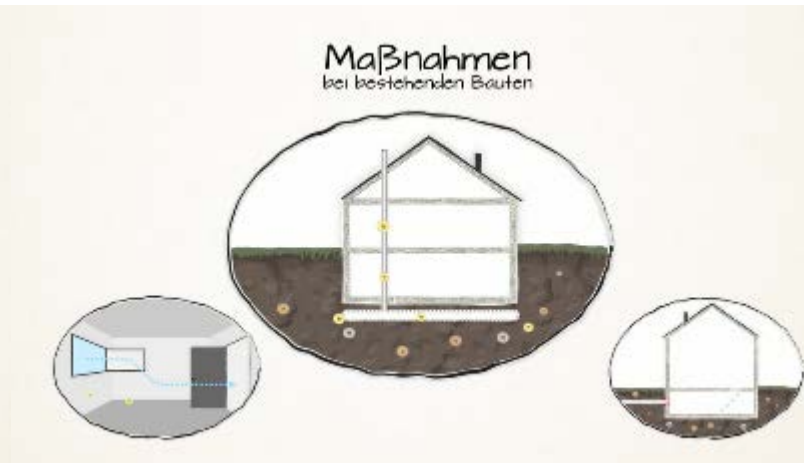
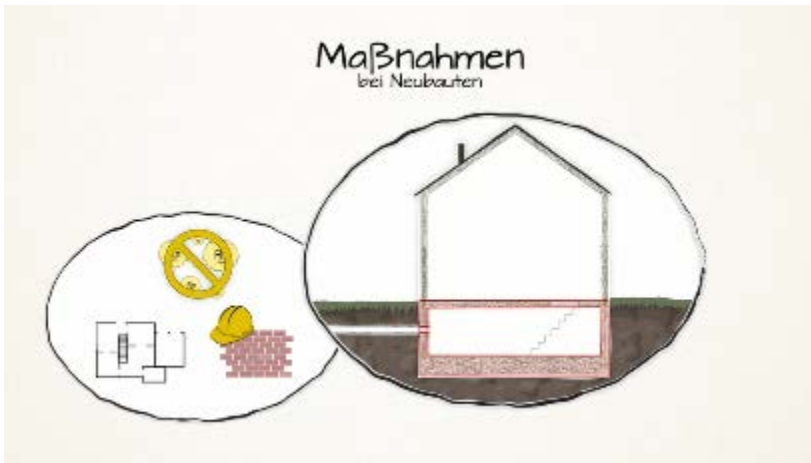
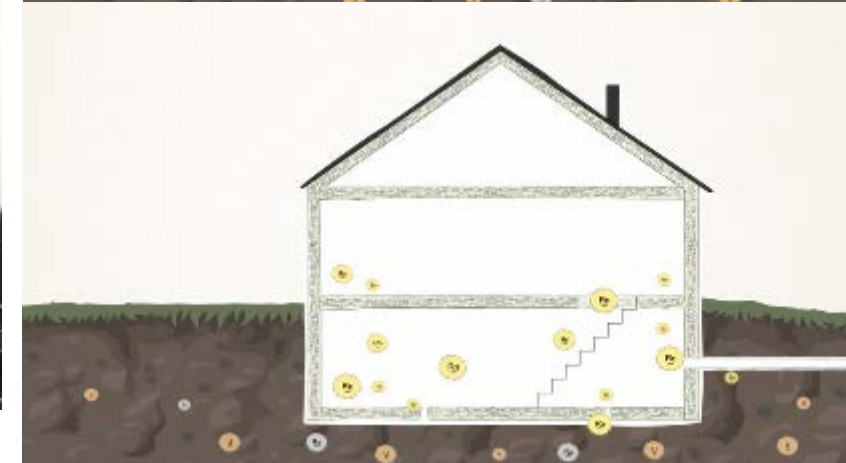
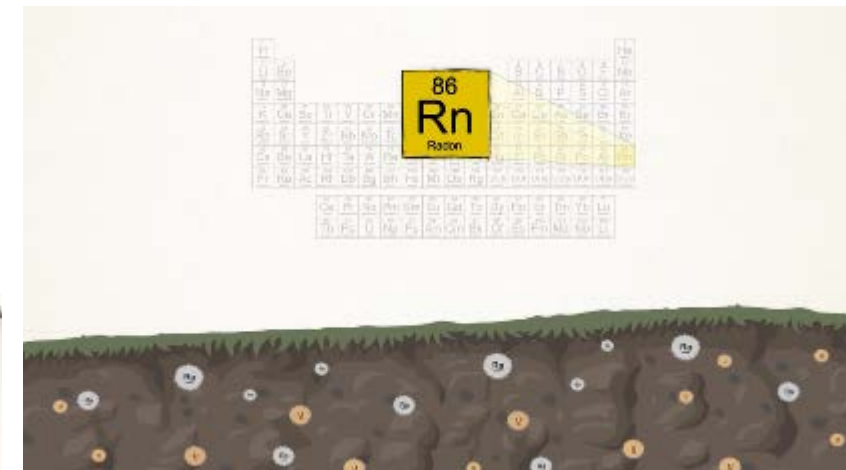
☞ Risk communication in Austria

- So far, mainly cognitive aspect addressed (providing measurement and information)

¹ Hevey D. Radon Risk and Remediation: A Psychological Perspective. *Front Public Health*. 2017;5:63. Published 2017 Mar 27.

Radon Information and Awareness video

Currently in progress..



Experience and lessons learned

Radon communication strategy



➤ Next step: **opinion survey** and **evaluation of implemented activities**

➤ Special situation: promotion of health benefits in radon spas for a long time

- "Good Radon" in spas vs. "Bad Radon" in dwellings → **intensify communication**

➤ Financial support helps but needs thorough risk communication !!

- More barriers than financial burden → emotional aspects need to be addressed



➤ Risk communication is a **time consuming process** → regularly repeating the message over a long period of time

→ Still a lot of work to do to increase "radon awareness with action" in Austria !!!



Klara HIMMELBAUER

National Radon Centre of Austria

AGES – Austrian Agency for Health & Food Safety

Wieningerstraße 8

4020 Linz, Austria

T +43 (0) 50 555-41908

klara.himmelbauer@ages.at

www.ages.at