

# State of BSS implementation – definition of Rn priority areas

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# Content

- State of RPA definition in Europe
- Political implications

# State of RPA definition in Europe

- A short overview on RPA definitions across Europe
- Based on e-mails and micro-presentations which I received during the last week (**thanks!**), literature and personal communication
- Not complete!  
Perhaps not correct in some cases!
- Correct & complete overview shall be achieved through MetroRn, questionnaires WP 3.1, 3.2

**status 7 Nov 2017**

\* not EU

country	area unit	RL	§	area is RPA if...	remarks
AT	municipality	300		AM(C;reference house)>150/300	"medium"/"high risk" areas
BE	municipality	300 <sup>#</sup>	√	prob(C>300)<1%; 1-5%; >5%	3 classes; # 100="target level"
BG		300		under discussion	
BiH*		300 <sup>#</sup>		under discussion	# workplaces; possibly graded approach
BY*		1000			
CH*	?	300	√	AM(C)>100/200	"medium"/"high risk" areas
CZ		300	√	entire country	
DE	district #	300	√	prob(C;reference house>300)>9% ##	# regions may subdivide; ## 3 x DE mean
DK		300			
ES	municipality	300		prob(C;ground or 1.floor>300)>10%	
FI	?	300		prob(C>300)>10%	
FR		300			
GR	municipality	300		prob(C>300)>10%	
HR		300 <sup>#</sup>		def. by working group, 2018	# dwellings & high occupancy publ. build.
HU		300	√	Rn action plan under prep.	
IE	municipality	200/300 <sup>#</sup>		prob(C>200)>10%	# homes / workplaces; § expect. Jan 2018
IT		#		#	#graded approach planned
LT		300	√	to be defined by Ministry of Health	
LU	canton	300		prob(C>300)<1%; 1-5%; >5%	Classes 0, 1, 2
NO*		200/100 <sup>#</sup>	√	entire country	# Max. limit / action limit
PL		300			
PT		300			
RO		300		under discussion	
SE		200		entire country	
UA*					existing regulation relies on EEC; see pres. T. Dudar
UK	?	200/300 <sup>#</sup>		prob(C>200)>1%	"Rn affected area"; #homes/workplaces

# annex to previous slide

- How can one compare these definitions?
- Assume LN distribution, GSD=2 (approximately realistic). Then one can standardize the definitions, e.g. to the probability that in a geographical unit, a living room exceeds 300 Bq/m<sup>3</sup>, corresponding the threshold given in the definition.

country	calc. prob(C>300) as threshold for RPA
Austria <sup>§</sup> (“high risk” class)	30-40%
Switzerland (class 2)	18%
Finland, Germany <sup>§</sup> , Greece, Spain	10% *
Belgium, Luxemburg (high Rn class)	5% *
Ireland	3%
UK	0.2%

\* original definition

§ refers to standard house, which is more “radon prone” than most real houses, therefore the estimate is conservative

# State of implementation

- EU Member States have to implement the BSS into national law by 6 Feb 2018.
- Some already did, for most the status is unknown to us.
- “implem.?” – Already implemented into national legislation **by mid-Sept 2017?**

country	implem.?	remarks
Austria		new radiation protection act till Feb. 2018; preparation of specific radon protection ordinance under way
Belgium	√	Adaptation of the Royal Decree (ordinance) under way; <a href="http://www.actionradon.be">www.actionradon.be</a>
Bulgaria		New law and ordinance under last revision
Czech Republic	√	<a href="http://www.sujb.cz/en/legal-framework/new-nuclear-law/">www.sujb.cz/en/legal-framework/new-nuclear-law/</a> ; <a href="http://www.radonovyprogram.cz">www.radonovyprogram.cz</a>
Germany	√	delegated legislation (ordinance level) under way
Greece		BSS to be implemented as presidential decree; under public consultation; Rn strategy to be implemented as ministerial decree.
Hungary	√	Govt. decree 487/2015. (XII. 30.) ; Rn Action Plan under preparation; <a href="http://www.oah.hu">www.oah.hu</a>
Ireland	√	<a href="http://www.epa.ie/radiation/radonmap/">www.epa.ie/radiation/radonmap/</a>
Italy		planned higher for existing, lower for new buildings; also optimisation below RL planned
Norway	√	<a href="http://www.nrpa.no/publication/strategy-for-the-reduction-of-radon-exposure-in-norway.pdf">www.nrpa.no/publication/strategy-for-the-reduction-of-radon-exposure-in-norway.pdf</a>
Spain		not yet
Sweden		not yet
Switzerland	√	<a href="http://www.bag.admin.ch/bag/de/home/themen/mensch-gesundheit/strahlung-radioaktivitaet-schall/radon/radonaktionsplan.html">www.bag.admin.ch/bag/de/home/themen/mensch-gesundheit/strahlung-radioaktivitaet-schall/radon/radonaktionsplan.html</a>
UK		Under way, <a href="http://www.hse.gov.uk/consult/condocs/cd282.htm">http://www.hse.gov.uk/consult/condocs/cd282.htm</a> . Expected by 1 Jan 2018; Rn plan as Statutory Instrument, early 2018.



## Caveat!

- The overview presented here is a snapshot of the situation around **early November 2017**
- Since the deadline for implementation is approaching (6 Feb 2018), the situation is “volatile” and must be expected to be changing fast.



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# RPA politics



- RPA definition and actual delineation seems to be the most politically sensitive topic in the BSS.
- Reasons:  
Regional authorities and administrations fear
  - economic disadvantages if labelled RPA;
  - costs of Rn surveys and remediation;
  - negative impact on investments and property price;
  - psychological “stigmatization”
- Reactions:
  - Some regional administrations strive for keeping RPA as small as possible;
  - Some countries decided to declare the entire country RPA, apparently to avoid such “stigmatizing” effect.

# Stakeholder interests - 1

## Interested parties:

- Radioprotectionists (*not least, Rn secures our jobs 😊*)
- Lawmakers
- Administrations (*Rn causes costs, may imply legal consequences*)
- Politicians (*Rn regulation contradicts deregulation agenda; can one earn votes by addressing Rn if it may imply higher housing costs?*)
- Home owners (*Rn → decrease of property value*)
- Health professionals
- Construction business
- Rn measurement and remediation business
- Media (*Can Rn be used to generate quota?*)
- Environmentalists (*Rn protection ↔ energy saving*)
- NGOs
- **The public**

## Stakeholder interests - 2

- Stakeholder interests can be conflicting.
- Perceptions of Rn problem (like risk perception altogether) and approaches towards it are naturally controlled by these interests.
- Awareness very different between stakeholders.
- Perception of risk depends on perceived costs and benefits caused by addressing the issue.
- Rn risk communication so far not very successful.
- Raising Rn awareness\* requires due addressing of interests! (Easier said than done.)

\* BSS, Annex XVIII, topic (10)

# Conclusions

- RPA definition – a sensitive topic
- Discussion and implementation differently advanced across Europe
- Different definitions →
  - possible harmonization problems;
  - problem of communication across borders

# Thank you!



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