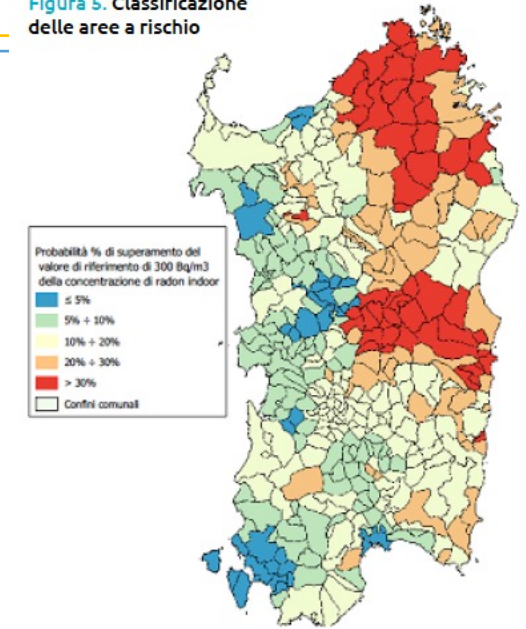


# Radon Health Impact Assessment and Risk Communication in Sardinia Region

*Liliana Cori on behalf of the Sardinia Region-CNR Radon working group*

Figura 5. Classificazione delle aree a rischio



**1)** The Sardinia Region protection programme against exposure to radon gas:

- Monitoring activities based on geological mapping
- Health Impact Assessment, HIA
- Guidelines definition for the construction/renovation of buildings
- Community involvement and a radon risks communication campaign

## **2) OBJECTIVES**

Communicate estimated risk on environmental radon exposure involving multiple stakeholders

## **3) METHODS**

Environmental radon mapping based on geology and device measurements



HIA → lung cancer deaths attributable to radon exposure, for each of the 377 Sardinian municipalities



## **4) RESULTS**

- Rn monitoring in schools → vulnerable, susceptible groups
- Urgent renovations/improvements in schools and other public buildings
- 6 guided discussions and 4 training sessions in 6 months on HIA and communication activities
- 1 meeting with local administrators
- communication to public officials in environment and health, specialized operators on radon-free building

| Area                                            | Mean concentration    | Attributable deaths | Attributable fraction |
|-------------------------------------------------|-----------------------|---------------------|-----------------------|
| <b>Sardinia island</b><br>(377 municipalities)  | 116 Bq/m <sup>3</sup> | 143 / 832           | 17.2 %                |
| <b>Highest risk area</b><br>(49 municipalities) | 202 Bq/m <sup>3</sup> | 13 / 55             | 23.6 %                |

## **5) CONCLUSIONS**

the health of populations living in radon-exposed areas can be significantly improved by reducing exposure to radon and synergistic risk factors (smoking) raising awareness using the knowledge gained long term further actions are needed.