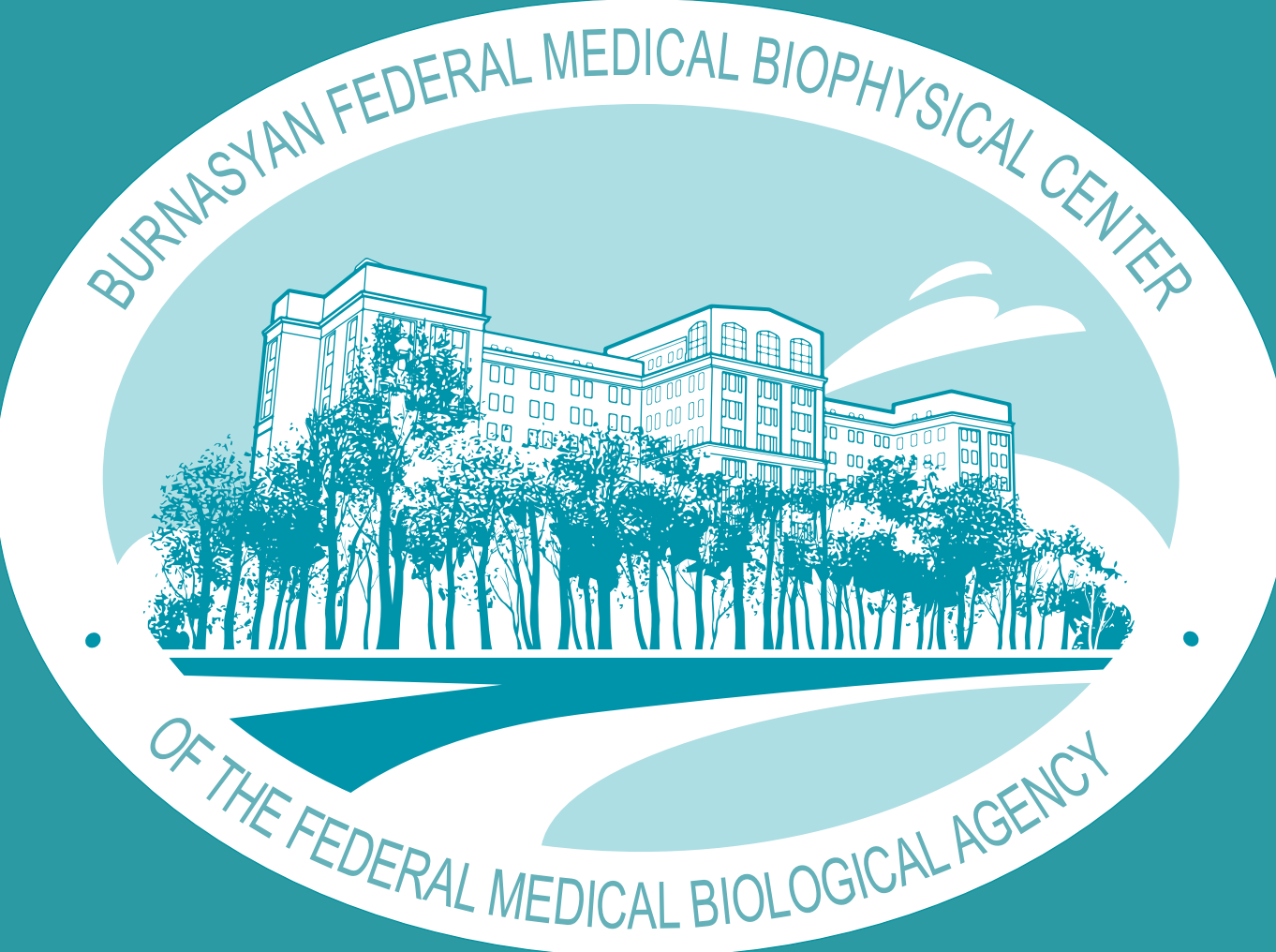


# Radon Regulatory Framework in Russian Federation: state of affairs and new challenges.



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## Introduction.

Radon is the major contributor to the public exposure in Russia (from 40 % to 90% in different regions). According to the results of the national radon survey (1995-2000), about 1,500,000 individuals receive annual doses above 10 mSv from this natural radiation source. For the purpose of radiation protection of the Russian population against radon, the national program took its rise in 1994 in the frame of federal target program (FTP) «RADON». The Russian population Radiation safety Law (1996) prescribes the statutory documents( radiation certificates) to be prepared annually for each regions all over the Russia to optimizing the measures aimed at reducing public exposure. At present, the main issues of FTP «Radon» are under implementation on the continuing basis under FTP «Nuclear and Radiation Safety Assurance».

## Legislative Basis.

Federal Law on the Public Radiation Protection. 1996.

Federal Law on the Public Sanitary Epidemiological Wellbeing. 1999.

Main Sanitary Rules for Radiation Safety. OSPORB 2010

Radiation Safety Standards. NRB 99/2009

Hygienic requirements for reduction of natural radiation sources induced public exposure ( SanRaN 2.6.1.2800-10)

Requirements. Recommendations. Guidelines.

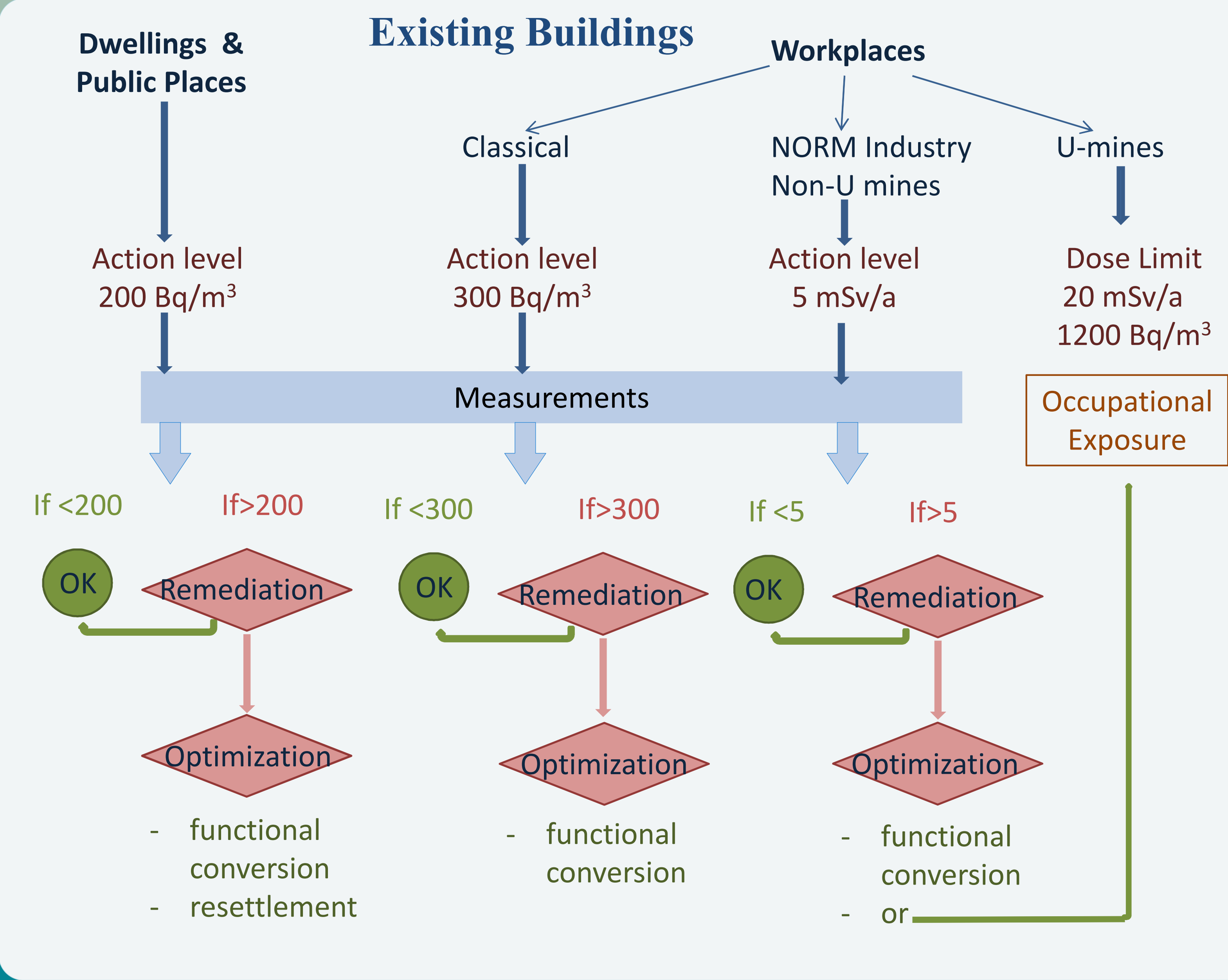
### Parameter under limitation.

$$EEC_{Rn+Tn} = EEC_{Rn} + 4,6 * EEC_{Tn}$$

$EEC_{Rn+Tn}$  – annual average equivalent equilibrium concentration of Rn and Tn daughters, Bq/m<sup>2</sup>  
 $EEC_{Rn}$  – indoor Rn progeny  
 $EEC_{Tn}$  – indoor Tn progeny

## General Approach for the Management of Radon Exposure.

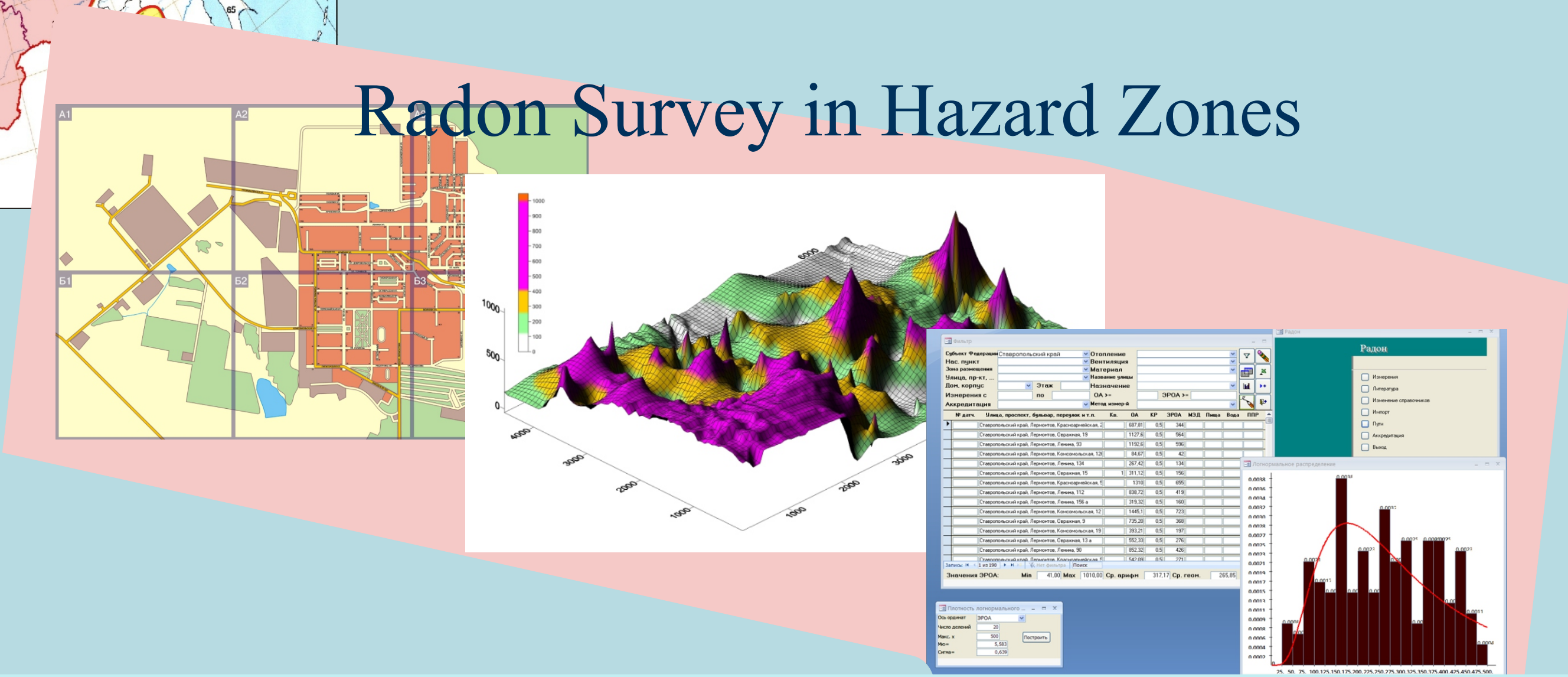
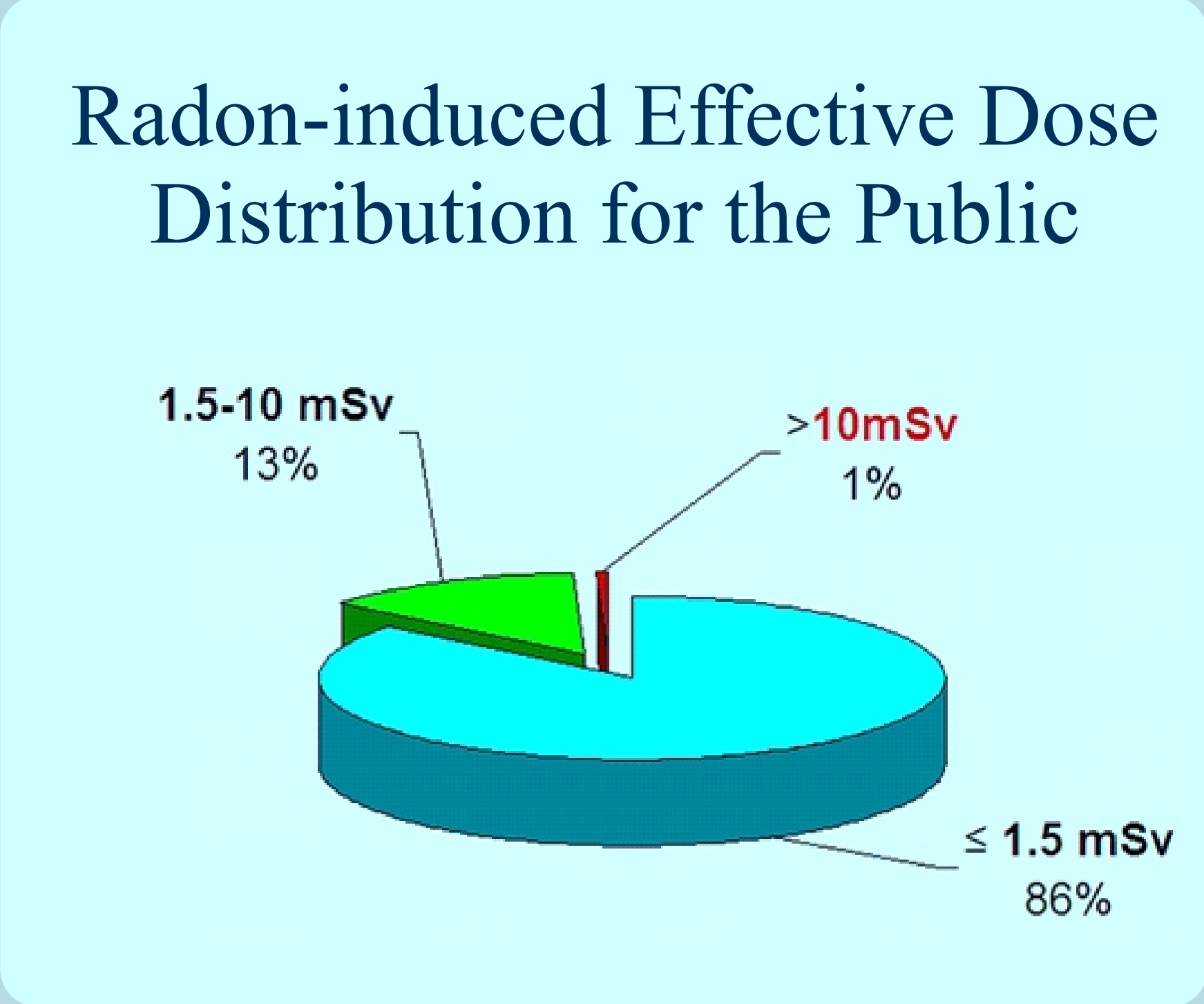
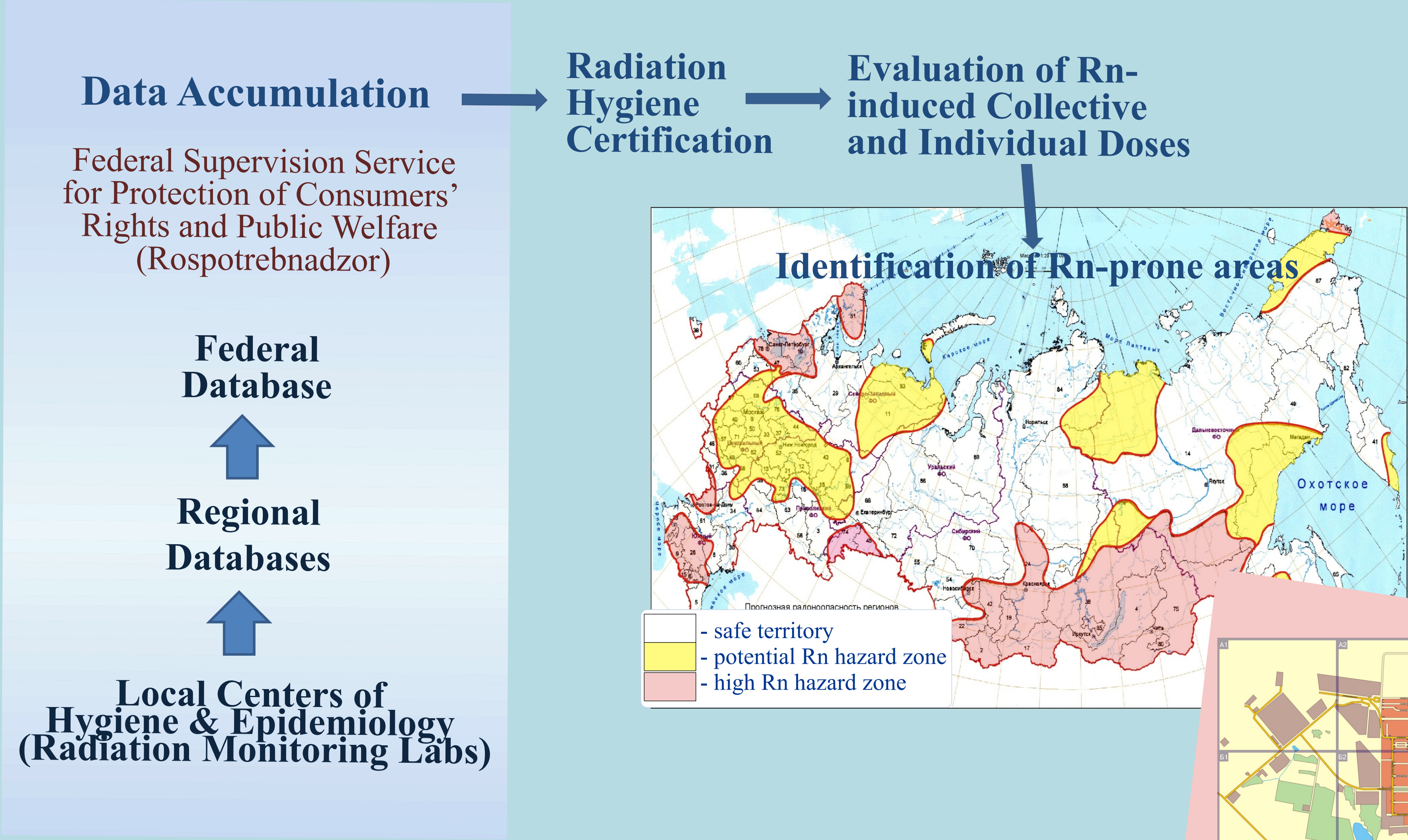
New Buildings	Dwellings	Workplaces
Rn flux density at construction area, mBq/m <sup>2</sup> *s	80	250
Natural radio nuclide (Ra 226, Th 232, K 40) in construction materials, Bq/kg	370	740
Rn control limits on completion, Bq/m <sup>3</sup>	100	150



## National Programs.

- 1994-1996 Federal Targeted Program «RADON».
- 2005-2015 Federal Targeted Program «Nuclear & Radiation Safety Assurance».

## Radon Surveys.



## Next Steps and New Challenges.

- Revision of the legal regulations in accordance with new epidemiological findings and current WHO, ICRP, IEAE recommendations.
- Development of national lung cancer risk model to set appropriate reference levels.
- Synchronization of the radon program with the related national programs (anti-smoking & energy saving).
- Expansion of the measurement campaigns. --- Planning an efficient strategy for remediation. — Promotion of protective measures against radon.
- Improving public awareness to health problems caused by radon.