

**IRSN**

INSTITUT  
DE RADIOPROTECTION  
ET DE SÛRETÉ NUCLÉAIRE

*Enhancing nuclear safety*

# "Radon: let's clear the air, let's meet the challenge"

A pilot and participatory program to fight domestic radon  
in the Haute Vienne Region (France)



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**ETSON**

EUROPEAN  
TECHNICAL SAFETY  
ORGANISATIONS  
NETWORK

**RICOMET 2019**

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# CONTENT

## The Program and the initial goals

## The results

- In terms of exposure to Radon in the Haute-Vienne Region
- In terms of efficiency of this Public Empowerment Program including a radon measurement campaign followed by remediation actions when necessary

## The key lessons learnt

# Context



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Haute-Vienne Region

## Review of the Radon Strategy

- Priority given to the domestic habitat
- Promoting an increase of public awareness and engagement through territorial actions

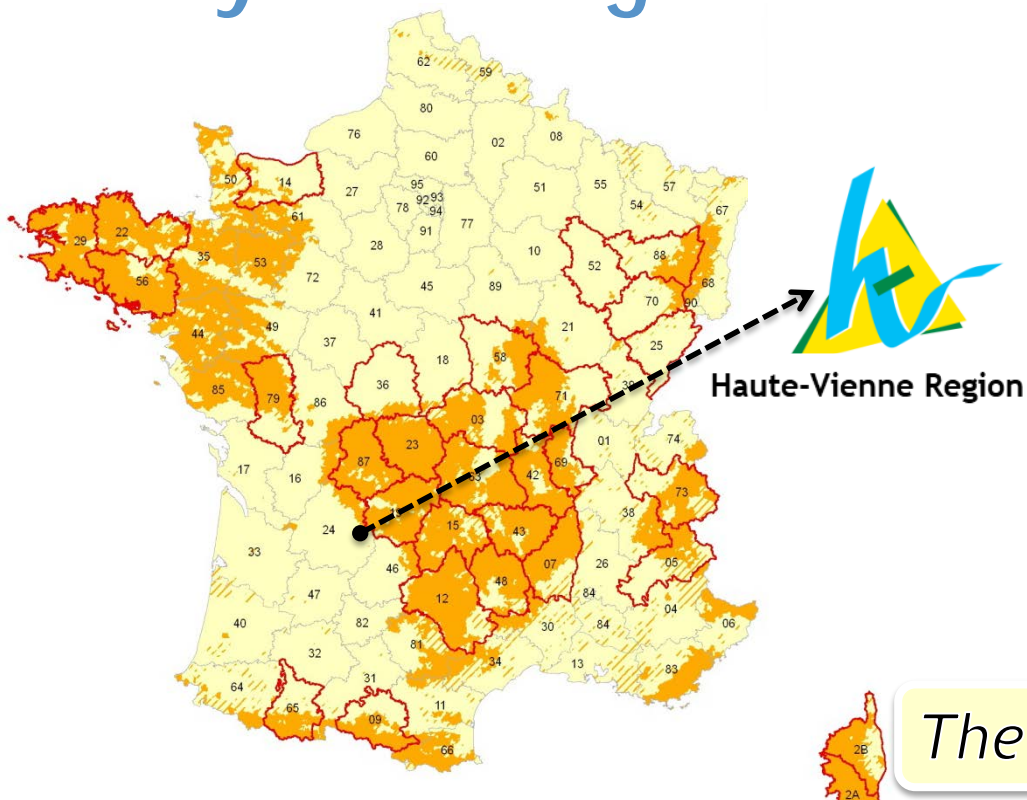
## Media Hype in relation with the ORANO file

- Investigation Campaign identifying sites re-utilizing tailings
- House / Toddler's day-care contaminated by radon in Bessines-on-Gartempe

March  
2014

➤ Haute-Vienne Region is known to be a territory particularly prone to radon however former initiatives were hampered by the public's apprehension for topics involving radioactivity

# Why this Region was selected



- One of the regions with high radon potential
- A uranium mining history
- House / Toddler's day-care contaminated by radon in Bessines-on-Gartempe

Mars 2014

*The right time the right moment*

The contaminated house increased the interest in the radon issue for a great number of people in the region and the will to engage in the Program (mayors, residents, building professionals etc...)

# Partnerships & IRSN Project Team



## Community of Municipalities ELAN

- Regional Intergration
- Proximity with the Residents



## Lycée des métiers du bâtiment

- Construction and Building Skills for Remediation actions when necessary
- Interface with Building Professionals



## IRSN

- All Round Expertise on RADON Communication & Openness to Society
- Project Management, the supply of the KITS
- The follow-up

- ▮ Close collaboration IRSN / Partners
- ▮ Resulting in Operational Dynamic



## The Program

**Radon: let's clear the air,  
let's meet the challenge  
was born**

# IRSN Radon Screening Program: the goals

A Support System helping the population to understand that:

- The presence of radon is not experienced as inevitable
- Those who decide to take action do not stand alone in the fight against domestic exposure to radon
- Radon exposures are ultimately reduced





# 2 Years Program fighting Domestic Exposure to Radon

Let's clear the air  
let's meet the challenge



- Distribution of kits at the Town Hall



- 4 Briefings
- 11 Workshops



- Follow-up Questionnaires
- Control Measurements
- Promotion of pilot operations

1

December 2015

1  
Measurements

2

Remediation

June 2016

March 2017

3

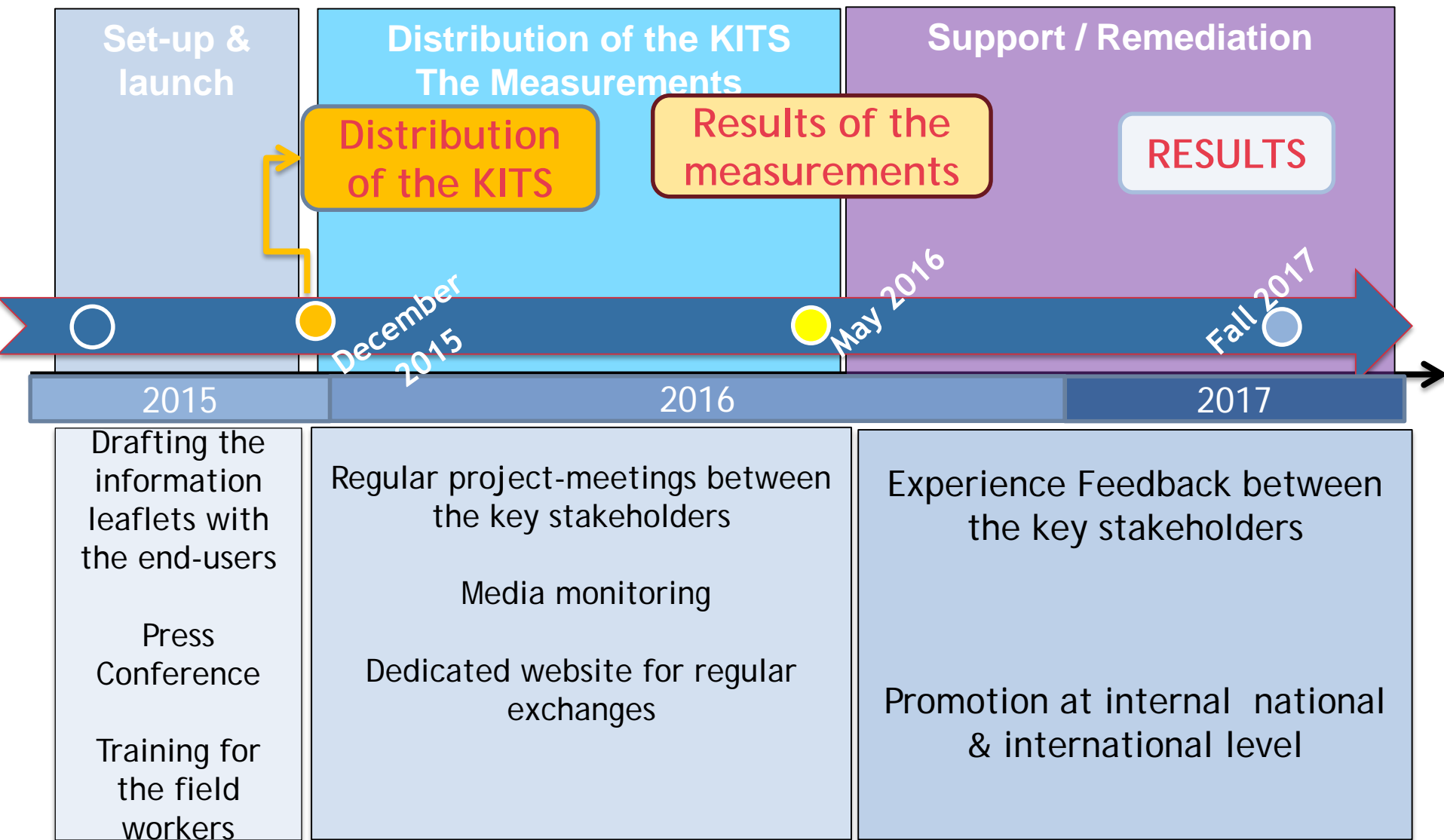
Assessment

February 2018

Meeting on the Program  
Results + Press Conference

**Press Conferences  
at each step of the way**

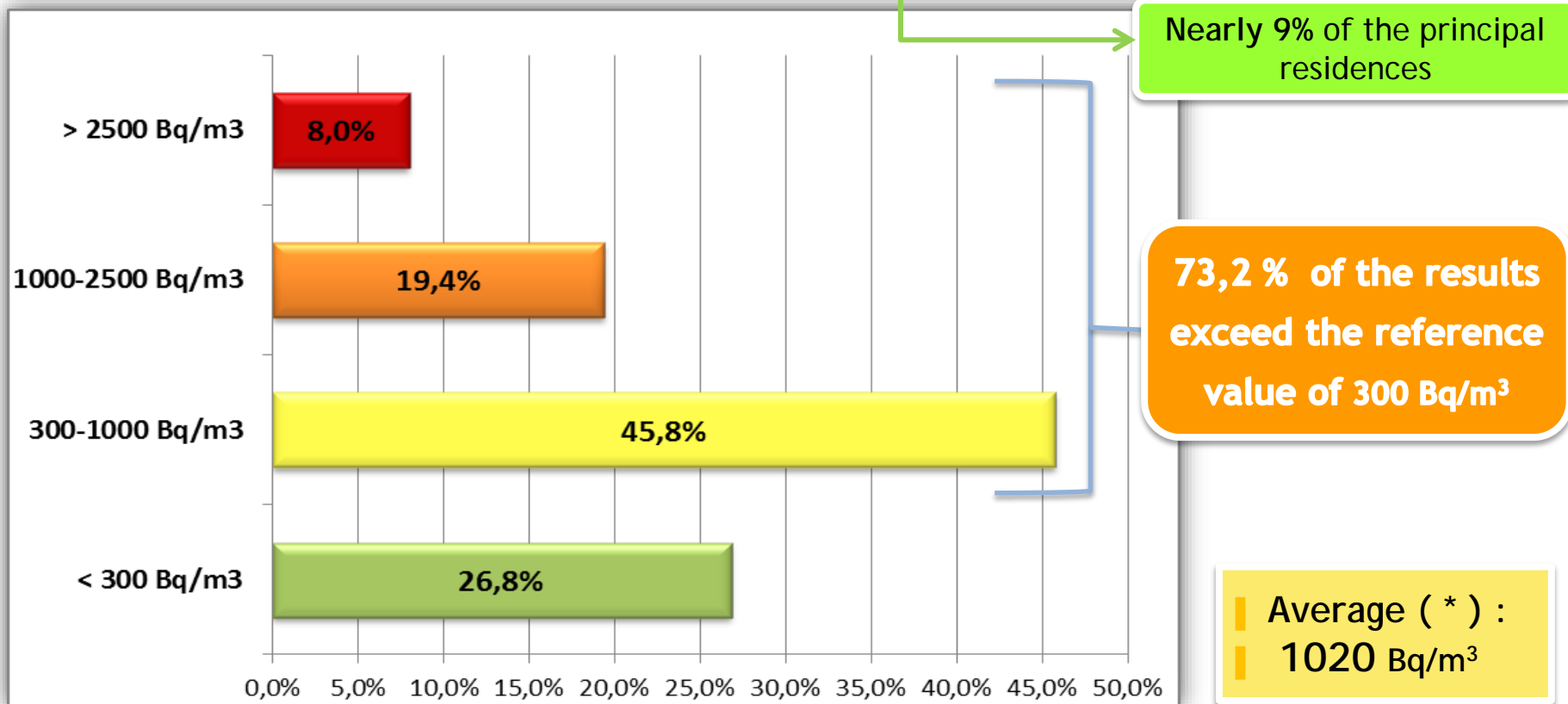
# THE COMMUNICATION INPUT





# Worrying initial exposure results

Initial measurement results for **729** households

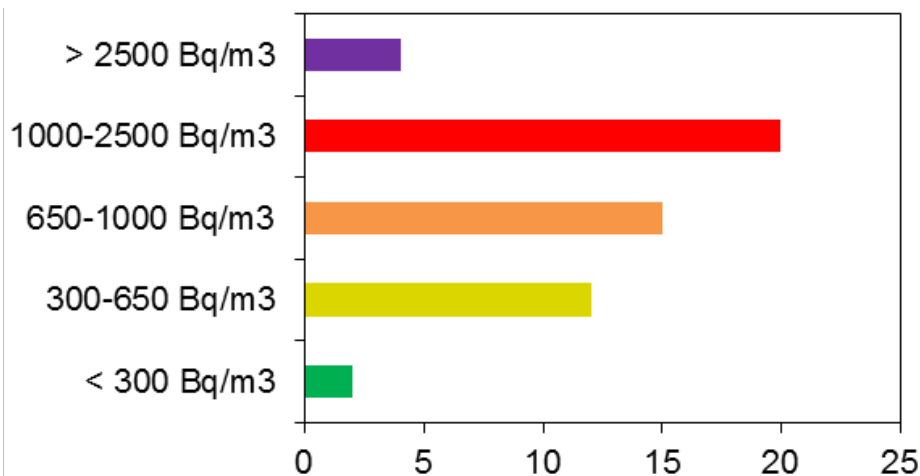


\* Average calculated from the maximum radon concentration measured in the living areas of each house

# The second phase: Remediation

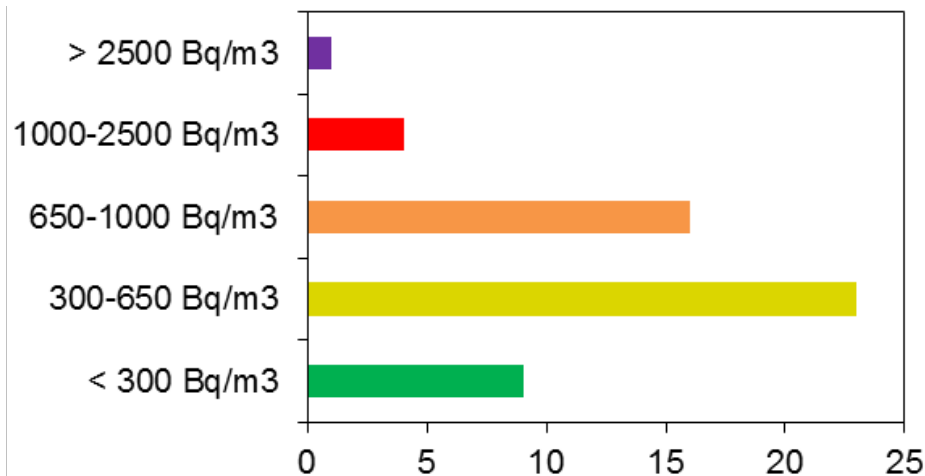
53 households carried out control measurements after remediation works throughout the year 2016 to lower their domestic Radon exposure

Initial Measurements - Winter 2015/16



Average (\*) : 1646 Bq/m<sup>3</sup>

Control Measurements - Winter 2016/17

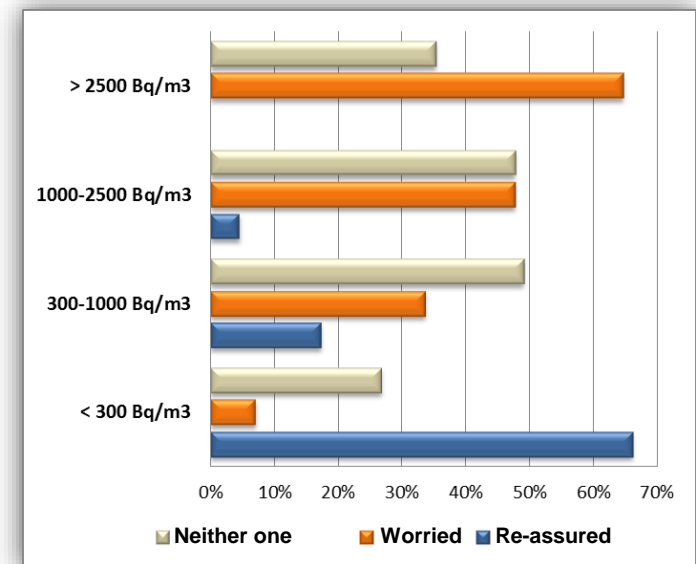
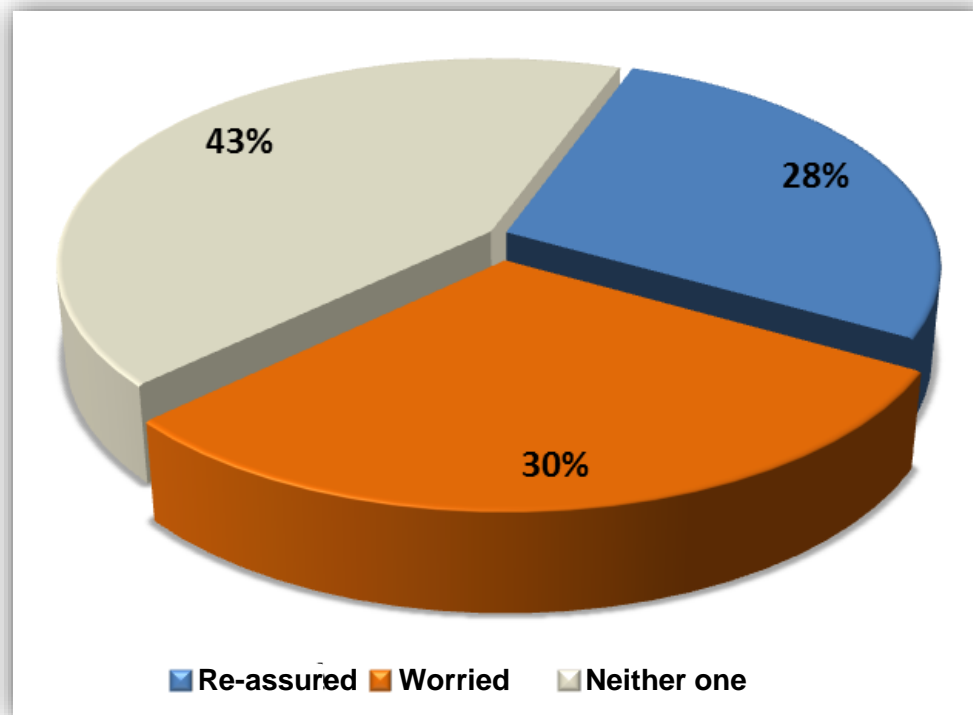


Average (\*) : 626 Bq/m<sup>3</sup>

\* Average calculated from the maximum radon concentration measured in the living areas of each house

# The efficiency of the IRSN Radon Program

- No excessive fear in spite of high radon concentration results
- Level of concern well correlated to the importance of radon concentrations measured



➤ Efficiency of the communication +  
Regular contact with the local population

*Data: 254 replies to the Follow-up  
questionnaires*

# What next

- Encourage local partners to continue their actions beyond the end of the program
  - Improvement and promotion of the Program thanks to the Experience Feedback and the Lessons Learned
  - Via the Regional Environmental Health Plan 2017-2021 for the Nouvelle-Aquitaine region
- Via the National Radon Action Plan 2016-2019
- Deploy new actions in favor of other communities... either in a territorial or/and digital way