EUROPEAN JOINT PROGRAMME FOR THE INTEGRATION OF RADIATION PROTECTION RESEARCH

CONCERT

TERRITORIES

Local stakeholders confronted to mid- and long-term uncertainties in a post-nuclear accident situation

Outputs from the TERRITORIES French panel

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The TERRITORIES Project

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To Enhance unceRtainties Reduction and stakeholders Involvement TOwards integrated and graded Risk management of humans and wildlife In long-lasting radiological Exposure Situations

Overall objective

- Propose a methodological approach for dosimetry assessment and management of existing exposure situations in contaminated territories in the long term.

Organisation

- **3 years** : 1st January 2017 - 31 December 2019;
- **11 partners** from 8 countries;
- **5 Work Packages**:

- **WP1** - Characterisation of territories (surveillance et modelling)
- **WP2** - Characterization of exposure scenarios, social and ethical perspectives
- **WP3** - Stakeholder involvement to improve management of contaminated territories in the long term
- **WP4** – Dissemination, E&T
- **WP5** – Project Management

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General context of WP3

FIRST STEPS

► Feedback analysis (post-Chernobyl, post-Fukushima, NORM contaminated sites) allowing to:

- Identify uncertainties and local concerns at stake in contaminated territories ;
- Develop a typology of uncertainties (deliverable D.9.65): radiological characterization and impact assessment, zoning of affected areas, feasibility and effectiveness of the remediation options, health consequences, socio-economic and financial aspects, quality of life in the territories, social distrust.


EJP-CONCERT
European Joint Programme for the Integration of Radiation Protection Research
H2020 – 662287
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INTERACTIONS WITH STAKEHOLDERS

► Organization of *panels, case studies, serious games*: collect stakeholders' expectations and concerns to better consider the uncertainties in the management of contaminated territories.

► French panel: proposal to discuss on issues related to living in contaminated territories and the associated uncertainties, regarding notably the socio-economic recovery.

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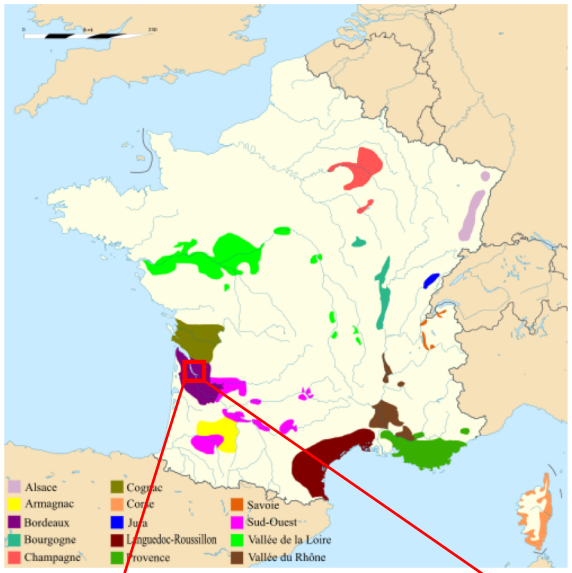
French panel: overall organisation (1/2)

French vineyards



Blayais NPP

vineyards

Seaside tourism

Bordeaux

Pine forest, agricultural fields

Focus on a particular territory with an emblematic product: Bordeaux wine

- Blayais NPP : near from vineyards, pine forest, agricultural fields and Bordeaux city (40 km);
- Coorganisation of a workshop with IRSN, CEPN and the Local Commission of Information of Blayais (CLIN du Blayais) in Bordeaux;
- Focus on local actors of the territory:
  - local elected people,
  - members of the CLIN of Blayais,
  - farmers, wine growers,
  - environmental NGOs,
  - actors from wine sector, tourism, forest industry, etc.

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French panel: overall organisation (2/2)

Workshop divided in 2 days : 11th and 12th of December 2018

- 1st day:
  - **Listening and sharing testimonies from 4 Japanese and 1 Belarussian actors** who have faced various challenges living in contaminated territories and tried to restart their activities;
  - **Discussions in plenary session** gathering more than 40 participants.

- 2nd day:
  - **Small working groups** with around 15 local actors (*farmers, wine-growers, CLIN members, local elected people, Environmental NGOs, representatives of wine industry and of the agricultural chamber) ;*
  - Based on the testimonies of the day before, **discussing on the medium and long-term issues and the uncertainties** they may face for the rehabilitation of their territory.

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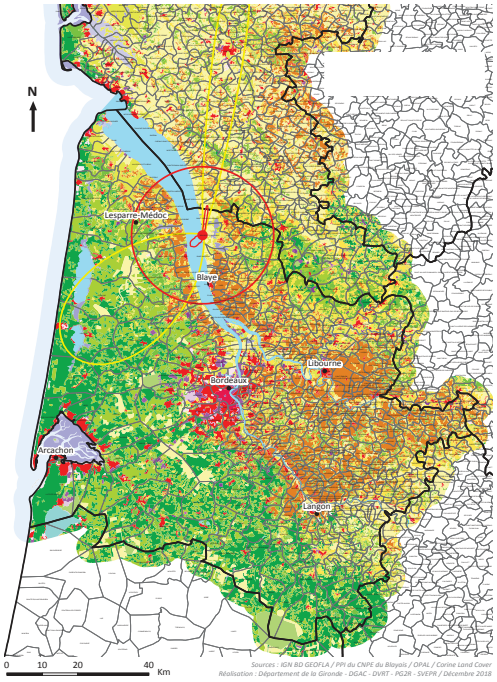
Methodology – Day 2: hypothetical accident scenario

Work from an hypothetical accident scenario at the Blayais NPP

- Core meltdown and radioactive releases at Blayais NPP during summer;
- 2 wind directions impacting 2 parts of the Blayais region.



Map of socio-economic issues

4 issues being discussed in subgroups

1. The **monitoring of the radiological situation** of the people and the affected territory.
2. The **becoming of the agricultural sector** in the affected territory.
3. The challenges of **restoring the quality of life** in the territory.
4. The conservation and the recovery of a **sustainable socio-economic activity** in the territory.

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Main results (1/2)

The monitoring of the radiological situation of the people and the affected territory

- *Citizens, farmers, wine growers, agricultural coops, unions, etc.* would all take initiatives to **measure their own products and environment**.
- How to **coordinate/collect** all these measurement results?
- How to **control** the respect of the measurement protocols? How to - and who would - ensure the reliability of the results?

The future of the agricultural sector in the affected territory

- **Loss of image** of the Bordeaux wine quite certain but beyond, what would be the impact on wine production at the national scale?
- Huge work to rebuild the consumers' confidence: need to **dialogue with them** and to **communicate quickly** about the real levels of contamination;
- For now, producers have **no information on the agricultural countermeasures** that could be implemented in case of an accident.

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Main results (2/2)

The challenges for restoring the quality of life in the territory

- Quality of life is a **philosophical question**… it depends on the **values of each** individual;
- A prerequisite: the **absence of health impacts**;
- **Support from authorities** by financing local infrastructures (transport, access to health care, shops, school, etc.) and **collective projects for the territory;**
- **Dialogue with experts** to answer to the expectations and concerns of local inhabitants and to help them to cope with their situation.

The conservation and the recovery of a sustainable socio-economic activity in the territory

- **Viticulture is the major socio-economic activity** but what would be the impact **of the other socio-economic activities** (*tourism activity, forest industry, other agricultural activities, etc.*)? ;
- **Need to prepare socio-economic actors** in advance and discuss with them the recovery of their activities in post-accident situations (time constraints, costs, organizations, roles);
- **Examine the possibility and modalities of economic compensation** (with justice/equity).

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Draft recommendations (1/2)

Encourage an integrated radiological monitoring system and the implementation of a joint database platform

- **Develop an integrated platform** for monitoring data providing a continuous mapping of the situation and which would respect the data multiplicity by notably tracing and displaying their origin and acquisition techniques;
- **Set up poles of expertise for data interpretation and analysis**, aiming to explain the evolution of monitoring results over time as well as their space variability.

Engage a reflection with local stakeholders to identify the specific socio-economic issues of the potentially affected territories and adapted protection strategies

- **Engage a dialogue with local stakeholders together with experts and local authorities** to identify and map the actors and the socio-economic issues which contribute to the territorial capital of the affected region;
- **Produce a shared assessment of the territory** and build together appropriate protection strategies.

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Draft recommendations (2/2)

- Better grasp financial mechanisms which can help to revitalize the affected territory
  - **Review existing financial support mechanisms**;
  - With the socio-economic actors, **further analyze the relevance of these financial mechanisms** with regards to the challenges associated with the revitalization of an affected territory;

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Conclusion

Strong added value of the Japanese and Belarussian testimonies

- Allow participants to better catch the various issues at stake in post-accident situations.

Acknowledgment of the need to be prepared for the management of a post-accident situation and the associated uncertainties

- The need for information campaigns among different audiences (students, local mediators, farmers, wine-growers, etc.) has been highlighted;
- CLIN of Blayais decided to **continue working on preparedness with local stakeholders** (socio-economic actors, health professionals, local elected people)

Next steps

- Integrate comments from the French panel about the draft recommendations;
- Final workshop of the TERRITORIES Project in Aix-en-Provence, 12-14 November 2019;
- Final deliverable (D.9.71) to be issued by the end of November 2019

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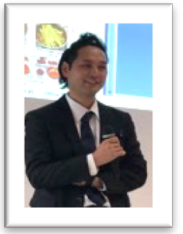
Methodology – Day 1: Testimonies

Post-Fukushima Daiichi NPP accident

Description of the **local initiatives of the Suetsugi community (in monitoring food and environment)** by Ryoko ANDO (**villager**, Ethos in Fukushima)

Presentation of the **difficulties faced by the producers of Anpokaki** (persimmon) following the Fukushima accident by Hiroshi TAKAHASHI (Fukushima Miraï agricultural coop)



Story of the **challenges associated with the recovery of the horticultural activity** in the Yamakiya village by Akihiko HIRONO (**horticulturist** in the Yamakiya village)

Description of **the role as scientific expert in helping rural communities to resume farming** by Tetsuo YATSUTAKA (**researcher**, AIST)

Post-Chernobyl NPP accident

Presentation of the **agricultural countermeasures implemented in Belarus** and actions implemented to develop a **practical radiological protection culture** among the local population by Andreï MOSTOVENKO (radiological monitoring **specialist**, RIR)

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