



**Analysis of long term options
in the management of closed
uranium mining sites:**

***A pluralistic expertise experience:
Groupe d'Expertise Pluraliste
in Limousin (France)***

IRPA 12 - Buenos Aires, 20 October 2008

Yves Marignac
GEP Coordinator



SUMMARY

Context and Concerns

- Uranium mining, post-mining and concerns

Role and Means

- Mission, organisation and means of GEP

Work in progress

- Priorities and current work of GEP

Interim Balance and Next Steps

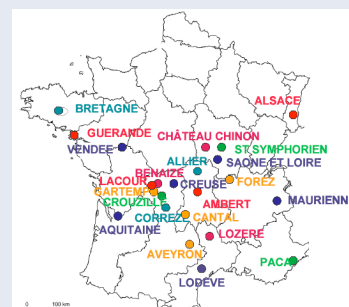
- Achievements and challenges



CONTEXT AND CONCERNS

□ A large and complex industrial legacy

- Uranium mining in France = 76,000 t U
 - > 200 Mt waste rocks, scattered on > 200 sites
 - > 50 Mt mill tailings, on 17 disposal sites
- Closure work done: now treatment, monitoring...



Uranium mining zones in France



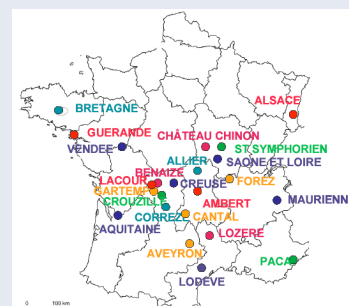
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 - > Impact on health? Impact on ecosystems?
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- Sustainability of remediation (long term issue)



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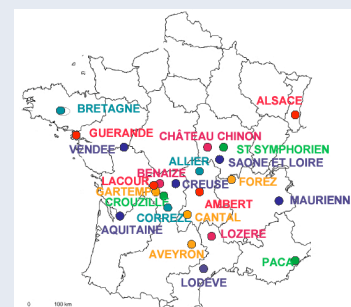
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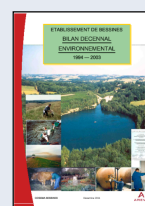
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□ Local and national authorities' response

- Long term plan to be defined (2006 Act)
- Limousin:
 - specific operator assessment (Areva)
 - critical review (mainly IRSN)
- **GEP: pluralist expertise group** on uranium mining sites in Limousin



Uranium mining zones in France



ROLE AND MEANS OF GEP

□ Assignment by Government and ASN (2006-2009)

1. Contribute to the **critical analysis**
2. Help choices with **recommendations** for management and monitoring (reduction of impacts, long term, methodology...)
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□ Pluralism

Competencies
(technical fields)

Viewpoints
(prof. positions)

Public Institutes & Administration	NGOs and independent	Industry	Foreign experts
IRSN, InVS, Academics, Authorities	Independent experts, Local NGOs	Areva NC	International REX (IAEA), UK, CH, B, L...
16 experts	5 experts	3 experts	6 experts



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□ Suitable and effective means

- Adequate rules (e.g. co-animation of groups)
- Appropriate funding (including for specific experts work)
- Access to existing and needed studies and external exchanges
- Dialogue with local stakeholders through established commissions



GEP'S WORK AT A GLANCE

□ Transfers to the environment

- Understanding the current level of efficiency of containment systems (regarding waterborne and airborne transfers)
- Adapt water treatment and target activities to impacts
- Further assess contribution of mining sites / radon



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□ Environmental and health impacts

- Go beyond health impact assessment set forth in regulations
- Develop **innovative methods** adapted to context and concerns (e.g. radiological impact on ecosystems)

1 **Environmental Impact**
radiological and chemical

2 **Health Impact**
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3 **Health monitoring**



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□ Regulatory issues and long term

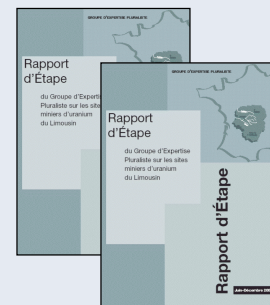
- Implementation of the regulatory framework for long term management
- Timescale and scenarios to consider
- Memory, liability, stewardship issues



GEP'S INTERIM BALANCE AND NEXT STEPS

□ Demonstrated operational status

- Deliveries**
- 2 interim reports (end 2006, end 2007)
 - First recommendations implemented
 - Reports to local commissions (Limousin)
 - Website on-line





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- Playground for broader technical and scientific dialogue
- Enhanced and innovative methodology
- Interlinking technical and societal analysis to address long term issues



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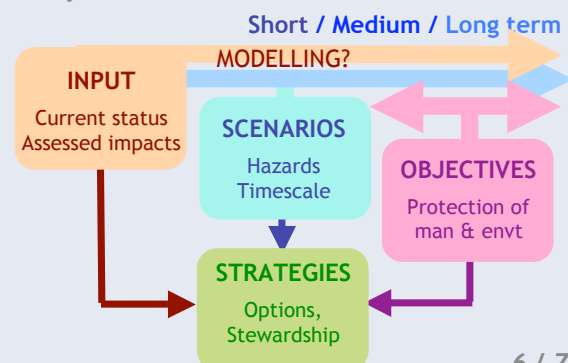
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□ Challenges for future work

- Conclude on innovative studies
- Build prospective assessment based on current status
- Draw a global approach from site-specific studies





CONCLUSION

□ GEP:

**An innovative approach opening new fields
with encouraging interim results
and a challenge to deliver comprehensive/operational conclusions**

**Important to share with the radiation protection community
on methodology and results
to share experience and ensure consistency**

Thank you for your attention!

More information: IRPA 12: **Poster Session**
Article on the website

Website: www.gep-nucleaire.org (in French)

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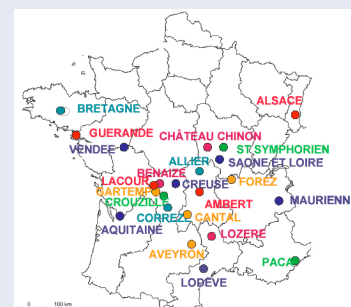
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- Limousin: specific operator's (Areva) + third-part (IRSN) assessments
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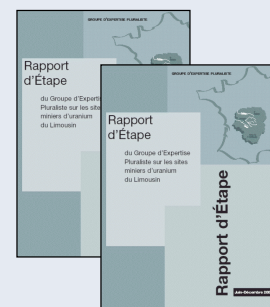
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