



**First Announcement**

**PAMINA**

**Second Annual Workshop**

**September, 29. – October, 01. 2008**

**Belambra VVF, „La Badine“  
Hyères, France**





## The PAMINA Project

**The Integrated Project PAMINA** is part of the 6th framework programme of the European Commission. It runs from October 1, 2006 until September 30, 2009 and brings together 26 organisations from ten European countries and one EC Joint Research Centre in order to improve and harmonise methodologies and tools for demonstrating the safety of deep geological disposal of long-lived radioactive waste and spent nuclear fuel in different geological environments. The results may be exploited by different stakeholders such as national waste management organisations, regulators and the public at large.

**The participating organisations** represent all major radioactive waste producing countries within the European Union. The consortium includes national waste management organisations, a regulator, several technical safety organisations (TSO) that closely support the regulator, universities and research organisations and two SMEs. From their different roles within their national radioactive waste programme, the participants bring in complementary viewpoints and experiences into the project which allows exploitation of the project results by both national waste management organisations and regulators alike.

**The main objective of IP PAMINA** is to improve and harmonise integrated performance assessment (PA) methodologies and tools for various disposal concepts of long-lived radioactive waste and spent nuclear fuel in different deep geological environments. The IP PAMINA aims at providing a sound methodological and scientific basis for demonstrating the safety of deep geological disposal of such wastes, that will be of value to all national radioactive waste management programmes, regardless of waste type, repository design, and stage, that has been reached in PA and safety case development.

**The work** is organised in four RTD (Research and Technology Development) components and one additional component dealing with knowledge management and dissemination of knowledge.

- In **RTD component 1**, the state of the art of methodologies and approaches needed for assessing the safety of deep geological disposal is evaluated on the basis of a comprehensive review of the international practices, which includes the identification of any deficiencies in both methods and tools, and in the quality of data required.
- In **RTDC 2** a framework and methodology for the treatment and management of uncertainty during PA and safety case development will be established. In the context of the development of the post-closure safety case, guidance on, and examples of, good practise will be provided on how to treat different types of



uncertainty, spatial variability, the development of probabilistic safety assessment tools, and the techniques for sensitivity and uncertainty analysis.

- In **RTDC 3** methodologies and tools for integrated PA for various geological disposal concepts will be further developed. This includes the development of scenarios, the PA approach to gas migration processes, the PA approach to radionuclide source term modelling and work concerning safety and performance indicators.
- In **RTDC 4** several benchmark exercises on specific processes will be carried out, in which quantitative comparisons are made of approaches that, on the one hand, rely on simplifying assumptions and models, and on the other hand, on complex models that take into account a more complete process conceptualization in space and time.

## WORKSHOP Objectives

The structure of the work programme and the high degree of cross-links of the different topics of the Project PAMINA imply that final results on most of the research topics will not be available until shortly before the project end.

Therefore, the first Annual Workshop held in Prague in September 2007 was mainly devoted to organising the project.

**This years Annual Workshop** in Hyères, France will present first preliminary results of the work to the interested community. The workshop will give room to discuss the findings and to give input for the following work.

Final results of the project PAMINA will be presented to the international community at large at the third Annual Workshop that will be carried out September 2009 in Germany.



## Venue

**The Hotel** Vacances Village Club La Badin is located in Southern France on the Giens peninsula, 600 metres from the sea and 21 kilometres from the city of Toulon. Airports nearby are located in Toulon, Marseille or Nice.

## Conference fee

**The Conference fee** will add up to approx. € 450 including accommodation, lunches and coffeebreaks.

## Contact

**For further information** about the workshop please contact the PAMINA coordinator:

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## Workshop Programme

### Monday, Sept. 29

- 12:00** Lunch
- 13:00** Opening
- 13:20** Presentation of RTDC-1  
*"Comprehensive overview of methodologies, tools and experiences"*
- Overview
  - Review on "Safety functions"
  - Review on "Definition and assessment of scenarios"
  - Review on "Uncertainty management and uncertainty analysis "
  - Review on "Safety indicators and performance/function indicators"
  - First results from the review on "Safety Strategy"
- 16:00** Coffee break
- 16:30** General discussion on the RTDC-1 presentations
- 17:00** Component 5 presentation
- 18:00** General Assembly Meeting
- 19:30** Poster session with Buffet

### Tuesday, Sept. 30

- 9:00** Invited presentation
- 10:00** Presentation of RTDC-3  
*"Other methodological advancements"*
- Overview
  - Safety functions
- 10:50** Coffee break
- 11:20** Presentation of RTDC-3 (cont.)
- PA approach to gas migration
  - Safety indicators and performance indicators
- 12:30** lunch



## **Tuesday, Sept. 30 (cont.)**

- 13:30** Presentation of RTDC-2  
*"Treatment of uncertainty during safety case development"*
- Overview
  - Report on the stakeholder workshop on communication of uncertainty
  - Report on the workshop on Regulatory Compliance
  - Reports on system approach to PA
- 16:00** Coffee break
- 16:30** Presentation of RTDC-2 (cont.)
- Reports on system approach to PA (cont.)
  - Reports on parameter and model uncertainty
- 20:00** Conference dinner (hosted by ANDRA)

## **Wednesday, Oct. 1**

- 9:00** Invited Presentation
- 10:00** Presentation of RTDC-4  
*"Relevance of sophisticated approaches in practical cases"*
- Overview
  - Modelling of the convergence process in a repository in salt formations
  - $K_d$ -approach versus geochemical modelling for a repository in a clay formation
- 10:50** Coffee break
- 11:20** Presentation of RTDC-4 (cont.)
- PA approaches based on different geometric complexity of modelling
  - Test of uncertainty analysis codes on practical cases
- 12:30** lunch

## **End of the workshop**