



PROJECT PRESENTATION (PP)

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Start date of project: 01/01/05

Duration: 48 Months

Project co-funded by the European Commission under the Euratom Research and Training Programme on Nuclear Energy within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
RE	Restricted to a group specified by the partners of the project	
CO	Confidential, only for partners of the project	

Introduction

The long-term migration of radionuclides from nuclear waste in a geological repository is dealt with, by a combination of (i) studies on fundamental process, (ii) host rock type specific processes, and (iii) application to safety/performance assessment. All key groups (researchers, implementers and regulators) are represented and all three host-rock types under discussion in Europe (clay rich, crystalline and salt rock) are investigated.

1 Nature and Scope of the project

The key objectives of the Integrated Project are (i) generation of fundamental knowledge on basic and host-rock type specific processes, (ii) implementation of this knowledge in safety/performance assessment, and (iii) dissemination of knowledge and training. Main achievements expected are increased trust in the capability for safe nuclear waste disposal and harmonization of the knowledge level throughout Europe.

The project presently has 67 partners in the form of contractors and associated groups. The partners are from 17 European countries, including 6 new member states, and Korea, with National Waste Management Organizations (8), different sized and types of research organizations (18), Universities (27), small and medium sized enterprises (5) and National Regulatory Bodies (9).

2 Activities

A broad set of research activities are carried out, covering detailed studies under controlled laboratory conditions, underground laboratory studies and analysis of the hydrological and geochemical behavior of relevant natural systems. The results are interpreted and structured for their use in long-term disposal safety/performance assessment. Training is done through the project and in association with other projects, aiming at optimizing the usefulness of the research and technological results, training young researchers, and finally training of researchers, implementers and regulators from member states with a lower competence level, especially new member states and applicant countries.

3. Expected Results

Performance assessment relies on (a) minimum confidence in regard of different processes, and (b) keeping pace with a continuously increasing expectation level on the knowledge associated with general development in science and technology. The present project (i) contributes to ensuring that relevant processes are adequately regarded in the analysis of disposal long-term safety, (ii) provides for a continued development in the understanding and treatment of relevant processes, and (iii) helps member states and applicant countries with a low competence level to achieve the required scientific and technological implementation level.

4. Societal Impact

The direct interest in the research is with the European nuclear power community, including both industry/power companies and regulatory authorities representing public safety concerns. The results may, however, also be used for disposal of non-nuclear waste. In a broader context, the results are also relevant for environmental concerns of the geosphere, including (ground-)water resource management.

The direct impact is related to the environmental, economic and political advantages of continued use of the clean and economic nuclear power with its contribution to political

stability through lowered dependency of energy import. This is directly related to long-term improvement in European competitiveness, employment, environmental quality and quality-of-life.

5. **Information about important public events**

Persons with interest in the project may participate in annual workshops, announced at the project website.

6. **Project Website address & contact person**

Project Website: www.funmig.com

Contact persons:

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FUNMAMENTAL PROCESSES OF RADIONUCLIDE MIGRATION

List of partners

Contractors:			
No.	Partner	Name	Country
1	FZK-INE	Forschungszentrum Karlsruhe G.m.b.H.	DE
2	AITEMIN	Asociación para el Desarrollo Industrial de los Recursos Naturales	ES
3	ANDRA	Agence Nationale pour la Gestion des Déchets Radioactifs	FR
4	ARMINES	Association pour la Recherche et le Développement des Méthodes et Processus Industriels	FR
5	BRGM	Bureau de Recherches Géologiques et Minières	FR
6	CEA	Commissariat à l'Énergie Atomique	FR
7	CIEMAT	Centro de Investigaciones Energéticas Medioambientales y Tecnológicas	ES
8	CSIC	Consejo Superior de Investigaciones Científicas	ES
9	CTH	Chalmers University of Technology	SE
10	ENRESA	Empresa Nacional de Residuos Radioactivos S.A.	ES
11	ENVIROS	Enviros Spain SL	ES
12	ERM	Études-Recherches-Matériaux	FR
13	FZR	Forschungszentrum Rossendorf e.V.	DE
14	GEOPOINT	Geopoint AB	SE
15	GRS	Gesellschaft für Anlagen- und Reaktorsicherheit mbH	DE
16	HU	University of Helsinki	FI
17	HUT	Helsinki University of Technology	FI
18	IIF	Institut für Interdisziplinäre Isotopenforschung	DE
19	II-CRC-HAS	Hungarian Academy of Sciences	HU
20	JGUM	Johannes Gutenberg Universität Mainz	DE
21	KTH	Royal Institute of Technology	SE
22	KU	Københavns Universitet	DK
23	KULEUVEN	Katholieke Universiteit Leuven	BE
24	NAGRA	Nationale Genossenschaft für die Lagerung radioaktiver Abfälle	CH
25	NILPRP	National Institute for Laser, Plasma and Radiation Physics	RO
26	NIRAS	Nationale Instelling voor Radioactief afval en verrijkte splijtstoffen	BE
27	NIREX	United Kingdom Nirex Limited	UK
28	NRI-REZ	Nuclear Research Institute Rez plc	CZ
29	NRIRR	National Center of Public Health, National Research Institute for Radiobiology and Radiohygiene	HU
30	OVIUNI	Universidad de Oviedo	ES
31	POSIVA	Posiva Oy	FI
32	PSI	Paul Scherrer Institut	CH
33	SAS-IIC	Slovak Academy of Sciences	SK
34	SCK_CEN	Studiocentrum voor Kernenergie_Centre d'Étude Nucléaire	BE
35	SKB	Svensk Kärnbränslehantering AB	SE
36	TUM-RCM	Technische Universität München	DE
37	UDC	Universidad de La Coruña	ES
38	UNIBERN	Universität Bern	CH
39	UNICYPRUS	University of Cyprus	CY
40	UNILOUGH	Loughborough University	UK
41	UNIMANCH	The Victoria University of Manchester	UK

42	UNIUTRECH	Universiteit Utrecht	NL
43	UPC	Universitat Politècnica de Catalunya	ES
44	UPPC	University of Potsdam	DE
45	UPV	Universidad Politècnica de Valencia	ES
46	VTT	Technical Research Centre of Finland	FI
47	WU	Wageningen University	NL
48	UJF	UJF Filiale	FR
49	LPEC	Laboratoire de Physique de l'État Condensé de l'Université du Maine	FR
50	LMM	Laboratoire de Matériaux Minéraux University of Mulhouse	FR
51	AIED	Alpine Institute of Environmental Dynamics	FR

Associated Groups:			
No.	Partner	Name	Country
1	S/JB	State Office for Nuclear Safety	CZ
2	STUK	Radiation and Nuclear Safety Authority	FI
3	IRSN	Institut de Radioprotection et de Sûreté Nucléaire	FR
4	GRS	Gesellschaft für Anlagen- und Reaktorsicherheit	DE
5	URSIJ	Slovenian Nuclear Safety Administration	SI
6	HSK	Swiss Federal Nuclear Safety Inspectorate	CH
7	RPII	Radiological Protection Institute of Ireland	IE
8	SKI	Swedish Nuclear Power Inspectorate	SE
9	CONTERRA	Conterra AB	SE
10	UNIZAR	Universidad de Zaragoza	ES
11	GSI	Geological Survey of Ireland	IE
12	USC	Universidade de Santiago de Compostela	ES
13	KHNP	Korea Hydro & Nuclear Power Co. Ltd	KR
14	TERRALOGICA	Terralogica AB	SE
15	CTU	Czech Technical University	CZ
16	CNCAN	National Commission for Nuclear Activities Control	RO

Coordination

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