



IP FUNMIG
1st Interim Activity Report

Date: 08.05

Submitting organizations: FZK-INE and ENVIROS

Dissemination level: Public (PU)



Foreword

The present deliverable gives a brief overview of the project activities during the first 6 project months. Activities of individual partners during this first semi-annual project reporting period are given in separate reports. These reports are available at the project Intranet site under “Management -> 1st semi-annual reporting-> PID0.9 (“Individual activity reports”).



Summary

The activities and progress for the first six project months may be summarized as follows:

- Contractual issues have been successfully concluded.
- Set of start-up meetings have been held. All critical issues identified, and measures taken where required.
- Scientific-technical work has started according to schedule.
- Deliverables and achievements of milestones have been on time.
- Knowledge management system is implemented, functioning well and is intensively used.
- Public WEB page was implemented at the very beginning of the project and, amongst others, used for external communication.
- Training activities initiated with first training workshop 7-10 November 2005 and topical session during first annual project workshop, 29 November - 1 December 2005.
- First annual workshop under preparation with information flyer distributed also beyond the project consortium.
- Contractual agreements with S+T review committee for annual workshop proceedings in preparation.
- Agreement on structure and responsibilities for general and scientific-technical integration issues.
- Successful extension of the project partners by an increasing number of Associated Groups, especially important the presently eight national regulatory bodies.



Table of contents

	<u>Page</u>
1 Project objectives and major achievements during the reporting period	5
2 RTDC/Workpackage and Component 7 progress within the reporting the period	6
3 Additional activities	15
4 Consortium management	17
4.1.1 Signature of the Contract and the Consortium	17
4.1.2 Formal agreements with Associated Groups.....	17
4.1.3 Contract amendment	17
4.1.4 Establishing the S+T review committee for the Annual Workshop Proceedings	18
4.1.5 Establishing the Knowledge Management System.....	18
4.1.6 Establishing a public communication system	18
4.1.7 Meetings held	18
4.2 Problems encountered and measures taken.....	19
4.3 Management related deliverables	19
5 Other issues	19
Annex: Use and dissemination.....	20



1 Project objectives and major achievements during the reporting period

The overall objectives of the first semi-annual project period can be described as ensuring that the project is starting appropriately. This includes ensuring that all required documents (Contract Accession Forms and Consortium Agreement) are signed by all partners, S+T work is starting appropriately, Milestones concerning determination of investigation material for future studies are met, the reporting system is started up, the knowledge management system is implemented, the public website is implemented and a series of start-up activities concerning extension of the project partners and initiation of training activities.

Start-up meetings were held in Barcelona 25-28 January. The Executive Committee and the Governing Board meetings were held. During these days also the project kick-off meeting and the General Assembly were held. In addition, a meeting was held with Associated Groups in order to document their key interests in participation. Amongst others, these meetings were tailored to ensure that partners of the individual RTDC's have an overview of S+T work to be performed and the partners were also made aware of reporting requirements. Minutes of the individual meetings are displayed at the project knowledge management intranet page.

All partners have signed the Contract Accession Forms and the Consortium Agreement and thus all formal requirements for establishing the Contract and the Consortium are fulfilled. This includes the first Project Amendment concerning the legal representative of Contractor No. 48 (UJF).

Milestones concerning determination of investigation material and systems are submitted on time.

The knowledge management system has been implemented and the project intranet site is used intensively.

The number of Associated Groups is increasing. The success in bringing these partners into active participation of the project will be a major challenge throughout the implementation.

A training course will be held 7-10 November 2005. The training course is implemented together with the International Training Center Association (ITC). All partners, including Associated Groups are informed together with other potentially interested organizations, also through direct contact with the IAEA.

A specific question encountered during the Start-up meetings was the role and function of RTDC6 and the Integration Monitoring Group (IMG). An agreement has been reached where the implementation plan of RTDC6 has been defined and the role and function of the IMG has been amended. This will be subject to one of the project amendments to be implemented in the coming months, in due time prior to the forthcoming Annual Project Workshop (29 November - 1 December 2005, Saclay) and the first annual reporting.

In summary, the project has started well. Statements concerning the progress in S+T work are premature. This will be shown by the contributions to the first annual project workshop proceedings.

2 RTDC/Workpackage and Component 7 progress within the reporting the period

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
1.1	Start-up of experimental work and set-up of new electrochemical cell system.	Electrochemical cell system under construction and solvent extraction studies started.	
1.2	<p>Start-up of experimental studies and modeling work, including preparation and purification of minerals, and</p> <p>Selection of rock material after geological analysis, by Helsinki University.</p>	<p>Radionuclides and minerals selected for the experimental studies. Minerals purified and characterized by a broad set of techniques, including thin section analysis of natural rock samples.</p> <p>Sorption studies started, such as Cm(III) onto sapphire and Se onto goethite, as well as Pu & Sr experimental sorption studies on smectite and illite/smectite mixture.</p> <p>Comparison of sorption modeling approaches with and without electrostatic terms.</p>	<p>Milestone M.1.2.1</p> <p>Pu and Sr sorption experiments on smectite and illite clays (in preparation). INTERNAL CIEMAT REPORT.</p>
1.3	Start-up of experimental studies and modeling work on the actinide interaction with anthropogenic and natural organic matter in association with minerals. It also includes formation of organic mineral coating by polymerization aiming at mimicking the natural situation.	<p>Experimental studies on binary and ternary systems have started, including sorption isotherms. Experimental methodology chosen after comparison of various approaches.</p> <p>Identification of impact on organic matter sorption on minerals by size of mineral phases and temperature.</p> <p>XANES analysis shows that polymerization of organics is catalyzed by clay minerals.</p> <p>Testing of CD-Music model has started by application to published data.</p>	

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
1.4	Start-up of experimental studies and modeling work, including synthesis and characterization of reference phases.	<p>The uranium mineral boltwoodite has been synthesized and characterized by XRD and SEM/EDX. Characterization by TRLFS in progress.</p> <p>Coprecipitation of Np(V) with calcite in mixed flow-through reactor started.</p> <p>GIXAFS system has been set-up at ANKA and tested for uranium sorption on calcite.</p>	
2.1	Colloid formation and stability in simulated and natural far-field groundwaters using spectro-microscopical approaches	Decisions for Febex backfill material and natural fracture filling material from the Grimsel Test Site taken. Colloidal fractions separated.	
2.2	Radionuclide complexation by natural mobile and immobile organic matter, simple organics and impact of organics on the stability of eigencolloids.	<p>Decision on natural organic matter (NOM) separation methods and solid samples taken. Mobile and immobile organic matter of Boom Clay characterized.</p> <p>First radionuclide binding constants and redox kinetics with humic acid building blocks determined.</p> <p>Preparation of solubility measurements of U, Th eigencolloids with different concentrations of NOM and in absence of NOM accomplished.</p>	Several abstracts at the MIGRATION 2005
2.3	Radionuclide redox transformation on minerals and natural host rock material.	Preparation and characterization of natural and synthetic minerals accomplished.	Several abstracts at the MIGRATION 2005
2.4	Impact of biogeochemical processes on radionuclide mobility.	<p><i>In situ</i> grown biofilms are provided.</p> <p>UNIUTRECH (#42) has delayed the start of project by 7 months due to problems finding an appropriate PhD candidate. Deliverables and description of work will not be affected.</p>	



WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
3.1	Model predictions of ion concentration profiles and comparison with measurements Selection of samples	Surface chemistry characterization of a synthetic montmorillonite Molecular dynamics code implemented on the BRGM PC cluster. Selection of core samples required for laboratory studies: Callovo-Oxfordian (Bure, France), Opalinus Clay (Mont-Terri, Switzerland) and Boom Clay (Mol, Belgium). (Sample received in May-June 2005). Starting of the laboratory studies on porewater chemistry extracted by squeezing (Callovo-Oxfordian).	

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
3.2	<p>To constrain the redox reactivity in argilite formation</p> <p>Decision on experiments to conduct</p> <p>Diffusion of strongly sorbing tracers in the Opalinus Clay.</p> <p>Design of large-scale diffusion test</p>	<p>Bure (PAC) argilite samples prepared/recorded and interpreted using Mössbauer spectrometry technique</p> <p>Decision on diffusion test to be performed as a support of NAGRA DR experiments</p> <p>First attempts for measuring Eu diffusion coefficients in the Opalinus Clay by means of RBS have been performed.</p> <p>The Opalinus Clay samples to perform “conventional” diffusion experiments have been received in May 2005. The samples are being prepared to start the experimental activity.</p> <p>The design of large-scale diffusion test was terminated. Some preliminary experiments have been carried out with Opalinus Clay samples (DI-B experiment location). The radionuclides used for these preliminary tests were HTO; ³⁷Cl and ⁸⁵Sr. The results are being analyzed and modeled.</p>	
3.3	Define modeling task for DR during 1 st year	Agreement on procedure.	Minutes of meeting on 13/14 June 2005 (in preparation)
3.4	Definition of the Callovian-Oxfordian mesh.	Compilation of the Callovian-Oxfordian argilite mineralogical information at a regional scale.	

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
4.1	<p>Evaluation and selection of upcoming database format; initial data compilation of local data.</p> <p>Providing the basis for understanding the geochemical conditions in crystalline rocks and bentonite</p> <p>Providing the basis for decisions on localization of new boreholes in the FEBEX gallery, based on interpretation of existing data from near boreholes.</p> <p>Blind modeling of mass transfer from bentonite to granite.</p>	<p>A preliminary selection of the parameters that are to be included in the database has been used while compiling data.</p> <p>The location for the new investigation boreholes has been selected. The technical characteristics of new investigation boreholes have been described.</p> <p>Compilation and analysis of existing information on bentonite and granite chemistry.</p> <p>Blind test prediction on concentration in water, mineralogy, sorption properties and physical material parameters</p> <p>Conceptual model is already described. At present, the implementation of the conceptual model into a numerical model (code capabilities) is being investigated.</p>	<p>A report on this issue has been delivered mid-june (in-Spanish).</p> <p><i>Hydrogeochemical characteristics and groundwater evolution in grimsel test site (gts), switzerland by B. Buil, P. Gómez, A. Garralón, M.J. Turrero, L. Sánchez.</i></p> <p>It is available in the FUNMIG Intranet. A final version including data on the sampling campaign of 2005 will be delivered in English.</p>

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
4.2	<p>Migration experiments with well characterized granite drill cores.</p> <p>Experimental study and modeling of the connectivity within the fracture network at the FEBEX site.</p> <p>NoE ACTINET project 01-01 on the effect of matrix diffusion on colloid associated RN transport, related to WP 4.2.</p> <p>Study of the pore structure and flow paths in Grimsel granite samples.</p> <p>3D geometrical description of micro fracture network in granite medium (drill cores)</p> <p>Spatially resolved investigation of transport processes in granite.</p>	<p>Compilation of hydrogeological documentation of Febex gallery.</p> <p>Generation of drill core columns followed by hydrologic characterization by ideal tracer break-through curves.</p> <p>Analysis of the geological and hydrological characteristics of the formation surrounding the Febex tunnel at the Grimsel test site. Decision on the location of new boreholes.</p> <p>Granite samples from the FEBEX tunnel that were in contact with the bentonite have been obtained from the site and prepared for experimental studies</p> <p>Laboratory experiments on the interaction of colloid transport and diffusive mass transfer.</p> <p>Preparation of computational infrastructure for high-resolution computed tomography data.</p> <p>Test of PET tracer sorption at surfaces of granite and weathering products.</p>	

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
4.3	<p>Starting determinations of relevant RTDC1 uncertainties.</p> <p>Quantification of inventory of potential bentonite colloid source. Identification of colloid filtration mechanisms.</p> <p>Determination of colloid diffusion coefficients in crystalline rocks as a function of their size and charge</p>	<p>Achievements directly coupled to the progress within WP 1.1 and 1.2.</p> <p>Analysis of the water chemistry obtained from the radial boreholes in the FEBEX tunnel. Results are not conclusive to establish the existence of bentonite colloids in the samples (related to WP4.1).</p> <p>Bentonite diffusion studies carried by means of the RBS technique. Colloids previously traced with Eu were used, and the Eu diffusion profile in granite was analysed.</p> <p>Preliminary studies on rock-colloid interactions as a function of colloid charge have been carried out using the microPixe technique. Problems on quantification of colloid retention have to be solved.</p>	<p>1) U. Alonso, T. Missana, A. Patelli, J.Ravagnan, V.Rigato “Bentonite colloid diffusion through the host rock of a deep geological repository” Submitted to Physics and Chemistry of the Earth.</p> <p>2) Patelli, U. Alonso, V. Rigato, T. Missana, S. Restello “Validation of the RBS analysis for colloid migration through a rough granite surface. Submitted to Nuclear Instrument and Methods in Physic Research, B.</p> <p>(The manuscripts are available in the FUNMIG intranet)</p>
4.4	<p>Selection of radionuclides for in-situ and mock-up experiments.</p> <p>Provision of laboratory set-up and isolation of relevant natural fracture filling colloid samples.</p> <p>Provide design for mock-up cells.</p> <p>Start up batch experiments.</p> <p>Determination of radionuclide transport parameters in granite.</p>	<p>Radionuclides for transport experiments selected.</p> <p>Colloidal fraction from fracture filling material isolated.</p> <p>Laboratory column experiments started and batch experiments initiated. Five experiments at different water flow rates have been carried out for determining the effect of the water flow rate on the colloid recovery.</p> <p>Mock-up test preliminary design, including installation of bentonite, tracers and hydration system.</p>	

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
4.5	For selected areas of investigation sites: Establishment of relevant data-set and compilation of background information.	The data base for two Swedish sites Forsmark and Simpevarp have been compiled and reported (SKB R-04-74 and SKB R-05-17). Based on joint meetings, approach under development for evaluation of geo-chemical and isotopic data is support of hydrological modeling.	
4.6	Modeling of multicomponent reactive transport under equilibrium conditions. Upscaling of sorption parameters.	Compilation of data on microscale transport and reaction processes. Development of analytical expressions for reactive transport under aqueous-aqueous and aqueous-solid reactions. Study of mixing due to spatio-temporal fluctuations. Preliminary studies on heterogeneous sorption of U and Cs on granite surfaces have been carried out using the microPixe technique A selection of minerals that were shown to be more reactive for radionuclide sorption has been done.	A procedure for the solution of multi-component reactive transport problems, under review, Water Resources Research, 2005. Effective solute transport in temporally fluctuating flow through heterogeneous media, in press, Water Resources Research, 2005.
5.1	Experimental setup for pH, Eh, electric conductivity, oxygen detection, calibration of components, implementation of an optical high pressure detection cell.	The experimental setup for the in-situ detection of geo-chemical parameters under high ground water pressures is completed and implemented to the detection system.	Semi-annual report (working document on project web space)

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
5.2	Determination of geochemical state of uranium and other trace elements in sediments from Ruprechtov site	<p>Characterization of samples from Ruprechtov site.</p> <p>Test of the confocal setup using new planar compound refractive lens (CRL) array generated X-ray microbeams for 3D elemental analysis with high resolution at ANKA.</p> <p>Re-interpretation of earlier performed sequential extractions and start with extractions from different grain fractions under oxidizing conditions. Start with U sorption experiments on various rock types occurring at Ruprechtov.</p>	Semi-annual report (working document on project web space)
5.3	Provide hydrogeochemical conditions at Ruprechtov site	Compilation of existing hydrogeochemical isotope data, i.e. ^2H , ^{18}O , ^{13}C and ^{14}C from Ruprechtov site.	Semi-annual report (working document on project intranet space)
RTDC 6	Adapt program in accordance with decisions taken at start-up meetings, 25-28 January 2005.	The RTDC 6 partners agreed on a program for the whole duration of the project and detailed the work for the first 18 months.	Minutes of meeting on 28 June 2005 (on project intranet space)

WP	Objectives	Major achievements and decisions taken. If applicable, problems encountered and measures taken to solve the problems.	Documentation (source of detailed information (also planned))
Component 7	Providing the basis for knowledge management, project communication and initiation of training.	<p>(i) Implementation of knowledge management intranet site and public WEB page,</p> <p>(ii) Initiation of training activities</p> <p>(iii) Preparation of generic poster and brochures, in combination with encouragement of partners to present the project at different conferences, workshops and other events.</p> <p>(iv) Initiation of science shop activities. A meeting was held with the general secretariat of the GMF (Group of European Municipalities with Nuclear Activities) and also with the manager of the AMAC (Spanish Group of Municipalities in Nuclear Areas). It is planned a meeting in Brussels (October 6th-7th) in coincidence with the GMF General Assembly to inform and interest the organization on this Funmig Activity.</p> <p>(v) Communication with other relevant FP6 projects for the possibility of a future joint training and information project/program.</p>	<p><u>Knowledge management system</u>: Intranet page, with generic poster and brochures</p> <p><u>Public WEB page</u>: www.funmig.com</p> <p><u>Flyer for first training course</u>: Available at www.funmig.com.</p> <p><u>Application of IP KNOWDIS</u> as the future basis for joint training and communication project.</p>

3 Additional activities

A1; Partner: ERM (12)

Proposal to ANDRA for a thesis on the understanding of diffusion processes in natural clay barriers taking into account the microstructural and mineralogical heterogeneities.

A2; Partner: ERM (12)

Preparation of a spreadsheet for the management of samples within Funmig project.



A3; Partner: NAGRA (24)

Other Partners involved (Partner No('s)): (1), 3, (6), (7), 24, (32), 38

Providing and receiving samples for diffuse ion and geochemical characterization studies;
Activity financed by Mt. Terri Project.

Published/source: Mt. Terri Technical Note (in preparation)

A4; Partner: PSI (32)

Guest Scientist from FZR, 1 month stay at PSI, know-how transfer on preparation of illite samples and U(VI) sorption. Preparation for long term cooperation: wet chemistry/U(VI) sorption on illite/TRLFS.

A5; Partner: PSI (32)

Exchange and comparison of results within the Mont Terri long term field diffusion experiment, DR

A6; Partner:WU (47)

The partner was invited as the examining committee member of the Ph.D thesis defense in the group of WU. The content of the Ph.D thesis is related to the studies in FUNMIG.

A7; AG14-CTU

Study of complexation of thorium with humic acid and carbonates using free-liquid electrophoresis. Comparison with results obtained with other methods at other laboratories (planned).

A8; AG14-CTU

Study of complexation properties of organic matter separated from Ruprechtov site in collaboration with NRI Rez - preparation of experiments.

A9; AG14-CTU

Study of uranium release/uptake, including determination of exchangeable uranium on a rock material from Ruprechtov site. Evaluation of diffusion experiments on another material from the same locality. Collaboration with NRI Rez.



4 Consortium management

The implementation of management is partly described under section 1. The individual project management activities may be described as under section 3.1: A problem encountered and measures taken are described under section 3.2. Management related Deliverables during the present reporting period are listed in section 3.3.

4.1.1 Signature of the Contract and the Consortium

The Contract was signed in December 2004 between the Commission and the Coordinator. In order to implement the contract the signature of the Contract Accession Forms by each partner is required as well as conclusion of the Consortium by signature of the Consortium Agreement. The required documents have been signed by all partners and copies countersigned by the Coordinator sent out to each Contractor. The Consortium Agreement is available together with the Contract at the project intranet site.

4.1.2 Formal agreements with Associated Groups

After final signature of the Contract and the Consortium Agreement, the Associated Groups have received signed originals by the Coordinator. Given that it is an open process for entering as an Associated Group, the number of Association Agreements is expected to continue growing.

4.1.3 Contract amendment

The first contract amendment has already been implemented, referring to change in the legal entity of Contractor No. 48 (UJF). A series of other project amendments are in preparation, including:

- Amendment of the first 18 months implementation plans of RTDC1-6
- The role and function of the Integration Monitoring Group (IMG)
- The contact person at some contractors
- Inclusion of special clause 39, applicable to the FP6 model contract for the implementation of the sixth framework program of the European Commission (2002-2006), providing for less frequent audit certificates for partners with low financial commission contribution.
- Merger of three deliverables, namely "Contractors Contributions to Interim Activity Report", Contractors Integration Reports" and "RTDC reports", in order to provide clarity in reporting requirements and documentation.



4.1.4 Establishing the S+T review committee for the Annual Workshop Proceedings

Persons with no direct relation to the project and the Consortium have been invited for forming the S+T review committee. Contractual agreements are expected to be implemented within the coming 2 months.

4.1.5 Establishing the Knowledge Management System

A project internal Intranet site has been established where non-public documents and reports are kept. All Contractors have access to the knowledge management site.

4.1.6 Establishing a public communication system

A public web site has been established. At this site, information about the project and the project activities are made available to a broad community. All public reports and deliverables are also kept at this site with no access restriction.

4.1.7 Meetings held

Meetings below RTDC level are not reported.

- Start-up meetings in Barcelona, 25-28 January 2005: Executive Committee, Governing Board, Kick-off meeting, including RTDC kick-off meetings, general assembly and meeting with Associated Groups.
- RTDC1 meeting: 3 June 2005, CEA, Saclay.
- RTDC3 meeting: During International Symposium "Using natural and engineered clay barriers for the containment of radioactive waste", Tours, 14-18 March 2005.
- 1st RTDC4 meeting: 29 March 2005, CIEMAT, Madrid.
- 2nd RTDC4 meeting: 10 May 2005, Grimsel Test Site.
- RTDC5 meeting: 7-8 April 2005, Meeting on sampling and evaluation of site-specific data for the Ruprechthov site, Ruprechthov.
- RTDC6 meeting: 28 June 2005, including proposal for amendment of implementation plan and the role and function of the Integration Monitoring Group (IMG), NAGRA offices.
- Meeting with the EC, 17 February 2005, Brussels, leading to overview documents, available at the project WEB page, describing different training and mobility instruments within the EURATOM FP6.
- EURATOM program information meeting, 11 July 2005, Brussels, Participation of the S+T coordinator invited to provide general information about FP6 project implementation and management to groups without previous experience in participation in the EC FP, however, with an interested in future participation.



4.2 Problems encountered and measures taken

The RTDC6 is a key for bringing the project S+T work to a useful product. During the project start-up meetings it was concluded that the implementation plan for this RTDC needs revision. In conjunction with this, also the role and function of the Integration Monitoring Group (IMG) should be reconsidered. A series of email and telephone communications as well as a proposal from an RTDC6 meeting came to the following solution:

- (i) The Integration Monitoring Group will be established before the end of September 2005,
- (ii) It will be composed of one representative from each RTDC, to be nominated by the respective RTDC leader,
- (iii) The IMG will deal with only the Integration of scientific-technical results towards establishing tools for PA, and
- (iv) Other Integration topics will be taken care of by the Coordination Team.

4.3 Management related deliverables

The following management related Deliverables have been submitted for the first 6 project months:

- D0.1 (“Performance Indicators and Performance Monitoring Indicators”), Submission date 2 Project Months (available at public web page)
- D0.10 (“Project Presentation”), Submission date 3 project Months (available at public web page)
- D0.11 (“Communication Action Plan”), Submission date 6 Project Months (available at project internal intranet site)
- D0.12 (“1st Interim Activity Report”), Present Deliverable, Submission date 6 project Months (available at public web page)
- PID0.1 (“Key milestones for full duration of the project”), Submission date 2 Project Months (available at project internal intranet site)
- PID0.7 /1 (“Contractors Semi-Annual Integration Report”), Submission dates project month 7-8 (available at project internal intranet site)
- PID0.9 /1 (“Contractors Contribution to Interim Activity Report”), Submission dates project month 7-8 (available at project internal intranet site)

5 Other issues

In preparation of the first annual report on general integration aspects, a working document for an integration report is under preparation, based on requesting integration information of individual partners.



Annex: Use and dissemination

Use and dissemination is mainly related to communicating the project and its outcome to (i) direct end-users, (ii) involved and interested research organizations, and (iii) a broader interested community. Direct end-users are mainly implementers and regulatory bodies. These end-users from the EU are involved in the project or have been invited to participate. This ensures that interested end-users are informed and can make use of the project outcome.

Use of the project outcome within the research community beyond the Consortium is given by publication of the annual project workshop proceedings and publications in the open literature. In addition, involvement and communication with organizations from a broad set of European countries, also those with small nuclear programs and/or a low competence level, is important for the possibility of their use of the project outcome.

During the present reporting period the following activities were of key importance:

- Information of large number of organizations concerning the possibility to participate in the form of Associated Groups, including informing the national Contact Points of all EU countries not represented in the project and National regulatory Bodies throughout the EU.
- Generation of generic poster and brochure, and encouraging partners to consider presentation of the project at various national and international events.
- Presentation of the project and all public reports and deliverables at the public WEB page
- Presentation of the project at different conferences, workshops and other events.
- Presentation of the project in the context of EC information meeting for organizations interested in entering the EURATOM FP6.
- Communication with other relevant EURATOM FP6 projects, also in view of future common communication approaches.