



D5.10 PLAN ON WP5 INTEGRATION AND DISSEMINATION

Contents

1	Introduction.....	2
2	Sub-task 5.5.1 Integration	2
2.1	Activities and objectives	2
2.1.1	Exchange of experience and good practices.....	3
2.1.2	WP5 partner meetings for sharing information	3
2.1.3	Researcher exchange / staff secondment	3
2.1.4	Internal and external expert reviews on WP5 outputs and demonstrations.....	4
2.2	Schedule	4
2.3	Resources	5
3	Dissemination	5
3.1	Target groups	5
3.2	Activities	5
3.2.1	Documentary film.....	6
3.2.2	Emplacement demonstrations for authorities	6
3.2.3	Newsletters and other publications.....	7
3.2.4	Dissemination on LUCOE and Posiva websites.....	7
3.3	Schedule	7
3.4	Resources	7
4	Deliverables and milestones	8
4.1.1	Deliverables list	8
4.1.2	Description of deliverables	9
4.1.3	Milestones.....	12

1 Introduction

This document, Plan on Integration and Dissemination, presents a plan for carrying out the activities of the task 5.1 Integration and Dissemination of the Work Package (WP) 5 "KBS-3V Emplacement tests in ONKALO (EMP)" in the LUCOEX (Large Underground Concept Experiments) project. The WP5 integration activities are targeted at ensuring efficient partner collaboration and communication process in the WP5. Dissemination activities focus mainly on spreading information on the WP to external stakeholder groups. The integration and dissemination activities provide a base for integrated planning, evaluation and reporting of the WP5 outcome. The task 5.1 is connected with the LUCOEX Work Package 1 Integration and dissemination. Posiva Oy acts as the WP5 Leader and other LUCOEX partners participate in the work, especially in the integration activities.

The project will be implemented in collaboration with a consortium of international participants (also referred to as "partners" in this document):

The LUCOEX project will be implemented in collaboration with a consortium of international participants:

- SVENSK KÄRNBRÄNSLEHANTERING AB ("SKB") (Sweden)
- AGENCE NATIONALE POUR LA GESTION DES DECHETS RADIOACTIFS ("ANDRA") (France)
- NATIONALE GENOSSENSCHAFT FÜR DIE LAGERUNG RADIOAKTIVER ABFÄLLE ("Nagra")(Switzerland)

2 Sub-task 5.5.1 Integration

2.1 Activities and objectives

The main activities of the sub-task 5.5.1 are exchange of experiences and good practices, WP5 partner meetings, researcher exchange/staff secondment and internal and external reviews on WP5 outputs and demonstrations.

The objectives of the activities are to ensure that knowledge developed in the different Work Packages is continuously shared and utilized mutually and that the results of the LUCOEX research activities are integrated in the demonstration activities.

2.1.1 Exchange of experience and good practices

Active exchange of experiences and good practices between the project partners will be carried out during the work package 5 duration. Posiva will actively inform the other LUCOEX partners on WP5 findings and conclusions that may be of interest for the activities realized in other LUCOEX WPs. The communication will be realized via the LUCOEX project place.

In WP5, tests and demonstrations will be realized related to the following issues: Bentonite block emplacement and gap filling methods; quality control methods and problem handling instruments. Most of the tests will be realized first in indoor premises and then in the Onkalo underground facility. Before starting the tests, detailed test plans will be composed. Experts from the LUCOEX project partner organisations will be asked to provide comments on the test plans. Demonstrations will be organized when testing is completed to show the feasibility of the methods to authorities and LUCOEX partners. Planned demonstration events: the buffer block emplacement tests with and without quality control demonstration at indoor premises and in ONKALO; problem handling demonstration in ONKALO.

2.1.2 WP5 partner meetings for sharing information

Posiva will organize in June 2011 a WP5 project meeting that focuses on presenting the starting points for buffer block installation equipment design for starting the work on the development of bentonite buffer emplacement, quality control and problem handling methods and equipment with a selected subcontractor. LUCOEX partners will be invited to the meeting to contribute to the WP5 work plans. In addition, four (4) meetings that are related to the afore-mentioned fields will be open for other LUCOEX project partners. The meetings will be connected to the method and equipment preliminary planning phase, planning phase, indoor testing phase and demonstration phase. The subcontractor which will realize a part of the work will also participate in the meetings. The LUCOEX participants will be offered the possibility to participate in the meetings in order to share information and brainstorm different solutions jointly.

Posiva will participate in the LUCOEX Project Progress and Steering Committee Meetings held at 9-month intervals during the project. In the meetings, Posiva will network actively, seek knowledge implementable to WP5 activities and discuss the WP5 findings and progress with the other LUCOEX partners.

2.1.3 Researcher exchange / staff secondment

The purpose of the researcher exchange / staff secondment is to promote information transfer on the performed demonstration activities. The activities will be organised between Posiva and other participants especially in connection with the demonstrations but also other activities identified interesting may come into question. The researcher exchange activities will focus especially on researchers with the aim of offering them possibilities for getting new international perspectives to their day-to-day activities and to integrate them to the international researcher community.

Posiva will invite researchers from the LUCOEX partner organisations to participate in WP5 activities, especially in the demonstrations organized after the method and equipment test phases. A programme for the visit will be composed in collaboration between Posiva and the sending organization. Posiva will map the interest amongst his own organization and send persons for a total 10 days (divided into relevant periods) to take part in the demonstrations (and other activities when relevant) of other LUCOEX partners.

The LUCOEX project staff secondment and scholarships is presented in detail in the LUCOEX documents “Staff Secondment Plan” and “Scholarship Plan”.

2.1.4 Internal and external expert reviews on WP5 outputs and demonstrations

Posiva will invite Posiva’s own experts and experts from the LUCOEX project consortium to perform reviews on the WP5 project plan, interim results, demonstrations and final report. The reviews are the WP5s internal evaluations and they are the key part of WP5 quality control activities.

The WP5 Project Plan was created in March 2011 and will be revised as relevant. Each revised version of the project plan will be sent for comments for the LUCOEX partners. The WP5 interim results will be presented to the experts for review yearly in connection with the Project Progress Meetings. Information on the interim results will also be published as the different WP5 reports and deliverables that are described in more detail in this document under task 5.2 Dissemination.

The external and internal experts will be invited to participate in the three main WP5 demonstrations realized in the Onkalo underground facility and create independent review reports on, amongst others, the used methods’ feasibility, performance and critical points. Representatives of the LUCOEX partner organisations can participate in the indoor testing by requesting possibilities from Mr Keijo Haapala / Posiva.

At the end of the project, a special report summarizing the performed expert reviews will be composed.

The WP5 Final report will be sent to the experts for comments before finalizing the version that will be submitted to the European Commission.

2.2 Schedule

The WP5 integration activities will be realized with the following schedule (M = project month):

- Exchange of experiences and good practices: M2-M48
- WP5 partner meetings:

- Four WP5 meetings related to the to the method and equipment preliminary planning phase, planning phase, indoor testing phase and demonstration phase
 - LUCOEX Project Progress Meetings: M10, M19, M28
 - Mid-term workshop M24
- Researcher exchange/staff secondment: M6-M48
- Internal and external reviews on WP5 outputs and demonstrations: M9-M48

2.3 Resources

The allocation of resources for sub-task 5.5.1:

- Lead beneficiary: Posiva (total 2,5 man months)
 - Persons: Tiina Jalonen, Keijo Haapala, Pasi Rantamäki, Lilli Mäkelä
- Other beneficiaries:
 - SKB (total 3 man months)
 - ANDRA (total 1 man month)
 - Nagra (total 1 man month)

3 Dissemination

3.1 Target groups

The target groups of the WP5 dissemination activities are stakeholders, communities, networks and organizations who are interested in and/or can benefit from the outcomes of the WP5:

- Organisations implementing activities related to disposal of nuclear waste
- Manufacturers of machinery needed in the disposal activities
- Research and academia
- Related European research and development platforms
- Authorities
- Policy makers
- General public interested in the disposal activities

3.2 Activities

Information about the developments related to this Work Package will be disseminated to different stakeholder and interest groups by the following activities: Documentary film,

emplacement demonstrations for authorities, Newsletters and other publications, Dissemination on websites.

3.2.1 Documentary film

In order to present the WP5 activities to wider audiences in a repeatable format, a 30-minute documentary film about the buffer components emplacement will be created. The film will take into account the needs of the different WP5 dissemination target groups and its purpose is to provide the groups an insight into the complexity of the research and development work and expertise needed for creating feasible solutions for the bentonite buffer emplacement activities.

The film will cover in the first place the following WP5 activities:

- Method / equipment design phase
- Machinery / equipment construction phase
- Demonstrations

The contents of the film will be planned in detail beforehand and agreed with all parties involved in the WP5 work, especially Posiva's own organisation and sub-contractors. The documentary will be made downloadable on the Posiva and the project web sites and included in the Posiva presentation materials. Public viewings will be organised at different events like fairs and conferences participated.

3.2.2 Emplacement demonstrations for authorities

In connection with the task 5.2 Demonstration of buffer components emplacement and task 5.3 Quality assurance and problem handling, three (3) half-day public emplacement and problem handling demonstrations will be organized. Demonstrations will be organized when testing is completed, to show the feasibility of the methods to authorities and LUCOEX partners. Planned demonstration events are: buffer block emplacement tests at indoor premises; emplacement demonstration with quality control demonstration in ONKALO; problem handling demonstration in ONKALO.

Representatives of authorities, most importantly STUK (the Radiation and Nuclear Safety Authority Finland) will be invited to follow the demonstrations. Also the LUCOEX project partners will be offered the possibility to come to watch the demonstrations. With regard to the demonstrations organized in the Onkalo underground facility, only a small group of people can be allowed to watch the demonstration in the underground premises due to the restrictions related to the Olkiluoto visitor entrance. The other demonstration participants will be able to follow the work via video connection. The demonstrations will be recorded on video for later public viewings.

Planned demonstration events: the buffer block emplacement tests at indoor premises; emplacement demonstration with quality control demonstration in ONKALO; problem handling demonstration in ONKALO.

3.2.3 Newsletters and other publications

A one-page newsletter with information on the work package activities' progress will be composed and delivered to relevant national and local stakeholders / interest groups once a year (total three newsletters during the LUCOEX project). The newsletter will be published in Finnish and in English. The Finnish newsletter will be published as a part of or as an article in the Posiva's "Posiva tutkii" ("Posiva explores/researches") newsletter / publication that is targeted at wider audiences and disseminated on Posiva's website. The English version will be distributed to the LUCOEX partners and to other relevant international interest organisations.

During WP5, two papers that will be submitted to professional journals will be created, one around the project mid-term and the other at the project end. Furthermore, the WP5 results will be presented in relevant international seminars and conferences.

3.2.4 Dissemination on LUCOEX and Posiva websites

WP5 will produce material to be published in English on the LUCOEX project's public website and on Posiva's own website in Finnish and English. The material may include brief notices on the WP5 proceedings and short reports on the WP5 results. WP5 will also actively contribute to the LUCOEX internal website / project place.

3.3 Schedule

The WP5 integration activities will be realized with the following schedule (M = project month):

- The documentary film: M14-M38
- Emplacement demonstrations for authorities: M18, M35, M38
- Newsletters and other publications: M10-M48
- Dissemination on websites: M5-M48

3.4 Resources

The allocation of resources for sub-task 5.5.2:

- Lead beneficiary: Posiva (total 1,5 man months)
 - Persons: Tiina Jalonen, Keijo Haapala, Pasi Rantamäki

4 Deliverables and milestones

4.1.1 Deliverables list

Delive- rable number	Deliverable title	Lead beneficiary	Estimated indicative person months	Nature	Dissemina- tion level	Delivery date
D5.1	Detailed project Plan	Posiva	1.00	R	PU	3
D5.10	Plan on WP5 integration and dissemination	Posiva	0.50	R	PU	5
D5.6	Definition of the WP5 emplacement process phases and their quality requirements.	Posiva	1.00	R	PU	12
D5.12	Interim report on the project reviews	Posiva	0.10	R	PU	12
D5.15	WP5 newsletter Posiva	Posiva	0.30	O	PU	12
D5.3	Memo on designing the gap filling tool	Posiva	0.50	R	PU	21
D5.13	Interim report on the project reviews	Posiva	0.10	R	PU	24
D5.16	WP5 newsletter Posiva	Posiva	0.30	O	PU	24
D5.18	Paper for professional journal	Posiva	0.25	R	PU	24
D5.4	Memo on buffer emplacement testing	Posiva	0.50	R	PU	33
D5.2	Buffer Emplacement test	Posiva	5.00	R	PU	36
D5.7	Memo on development of quality assurance tools	Posiva	1.00	R	PU	36
D5.8	Plans for solving the emplacement problem situations	Posiva	1.00	R	PU	36
D5.14	Interim report on the project reviews	Posiva	0.10	R	PU	36
D5.17	WP5 newsletter Posiva	Posiva	0.30	O	PU	36
D5.5	Quality assurance and problem handling during buffer emplacement	Posiva	5.00	R	PU	38
D5.20	Documentary film of buffer installation demos	Posiva	0.25	O	PU	40
D5.11	Project expert review report	Posiva	1.70	R	PU	48
D5.19	Paper for professional journal	Posiva	0.25	R	PU	48
D5.9	Final report of WP5	Posiva	6.00	R	PU	48

In addition to the above-mentioned WP5 deliverables, WP5 will contribute to WP1 by producing the deliverable “D1.19 Publishable technical report on WP5 result” (month 46)

4.1.2 Description of deliverables

D 5.1 Detailed project plan

- Contents: The document describes, amongst others, the WP5 activities, resources to be used, milestones, deliverables, risks / constraints and connections to other WPs.
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 1
- Delivery date: 3/2011

D 5.2 Buffer Emplacement Test

- Contents: The document is a working report that presents buffer emplacement demonstrations in ONKALO
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 5
- Delivery date: 12/2013

D 5.3 Memo on the designing the gap filling tool

- Contents: Description of the gap filling tool design process
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 0,5
- Delivery date: 9/2012

D 5.4 Memo on the buffer emplacement testing

- Contents: Description of the buffer emplacement testing
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 0,5
- Delivery date: 9/2013

D 5.5 Quality assurance and problem handling during buffer emplacement

- Contents: Working report that presents quality assurance methods and problem handling during buffer emplacement
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 5
- Delivery date: 2/2014

D 5.6 Definition of the WP5 emplacement process phases and their quality requirements

- Contents: Description of the buffer emplacement testing
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 1
- Delivery date: 12/2011

D 5.7 Memo on development of quality assurance tools

- Contents: Description of the quality assurance tool development
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 1
- Delivery date: 12/2013

D 5.8 Plans for solving the emplacement problem situations

- Contents: Memo describing the plans for solving emplacement problem situations
- Lead beneficiary: Posiva
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 1
- Delivery date: 12/2013

D 5.9 Final report of WP5

- Contents: Report describing the activities implemented in the WP5
- Lead beneficiary: Posiva
- Nature: Report

- Publicity level: Public
- Estimated indicative person months: 6
- Delivery date: 12/2014

D 5.10 Plan on WP5 integration and dissemination

- Contents: Description of the integration and dissemination activities to be realized in WP5
- Lead beneficiary: Posiva
- Other participants:
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 0,5
- Delivery date: 5/2011

D 5.11 Project expert review report

- Contents: Report on the project reviews performed by external and internal experts during the project
- Lead beneficiary: Posiva
- Other participants:
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 1,7
- Delivery date: 12/2014

D 5.12, D 5.13, D 5.14 Interim report on the project reviews

- Contents: Brief yearly interim reports on the project reviews performed by external and internal experts
- Lead beneficiary: Posiva
- Other participants:
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 0,1 man months /report
- Delivery dates (total 3 reports during the project): 12/2011, 12/2012, 12/2013

D 5.15, D 5.16, D 5.17 WP5 Newsletter Posiva

- Contents: Newsletter on the WP5 activities, targeted at different stakeholder groups
- Lead beneficiary: Posiva
- Nature: Other

- Publicity level: Public
- Estimated indicative man months: 0,3 man months /report
- Delivery dates (total 3 newsletters during the project): 12/2011, 12/2012, 12/2013

D 5.18, D 5.19 Paper for professional journal

- Contents: Paper on the WP5 implementation to be published in a professional journal
- Lead beneficiary: Posiva
- Other participants:
- Nature: Report
- Publicity level: Public
- Estimated indicative man months: 0,1 man months /report
- Delivery dates (total 3 reports during the project): 12/2012, 12/2014

D 5.20 Documentary film on buffer installation demos

- Contents: Documentary film created on the realized demonstrations
- Lead beneficiary: Posiva
- Other participants:
- Nature: Other
- Publicity level: Public
- Estimated indicative man months: 2,5
- Delivery date: 4/2014

4.1.3 Milestones

MS 50: Plan of WP5 integration and dissemination ready (=this document)

- Lead beneficiary: Posiva
- Month: 5/2011
- Method of verification: Plan created and finalised