



LIFE Project Number

LIFE09 ENV/EE/000227

Progress Report no 2

Covering the project activities from 01/09/2010 to 15/03/2012

Reporting Date

30/03/2012

LIFE+ PROJECT NAME or Acronym

OSAMAT

Data Project

Project location	Estonia
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Project end date:	31/12/2014
Total budget	€ 2 634 980
EC contribution:	€ 1 142 490
(%) of eligible costs	50

Data Beneficiary

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1 Abbreviations

OSAMAT – acronym for " Management of Environmentally Sound Recycling of Oil Shale Ashes into Road Construction Products. Demonstration in Estonia"

EE – Eesti Energia AS

EE NEJ – Eesti Energia Narva Elektriijaamad AS

NC – Nordecon AS

ERA – Estonian Road Administration

MoE – Ministry of Environment

RM – Ramboll

SG – Steering Group

EC – European Commission

EE NEJ – Eesti Energia Narva Elektriijaamad AS

2 Executive summary

2.1 General progress

The preparations for the project started in September 2010 with meetings of the beneficiary representatives and official kick-off meeting in October 2010.

The most important activities that have been successfully carried out since the kick off meeting are the compilation of Steering Group, activating and maintenance of the project homepage (www.osamat.ee), the choosing of the piloting locations, and the completion of material laboratory testing, and of technical design project Narva-Mustajõe.

In September and October 2011 first two sections of Narva-Mustajõe pilot site construction was carried out. The detailed information about pilot site construction activities and ashes used is presented in the Intermediate Report no 2. Laboratory analyses for Simuna-Vaiatu pilot site mass stabilisation continue and preliminary results have been received.

In November 2011 a request for changes in OSAMAT project was sent to EC.

2.2 Assessment as to whether the project objectives and work plan are still viable

Based on the description of the general progress of the project above and descriptions of later chapters the project objectives and the work plan are still viable despite of some encountered problems.

2.3 Problems encountered

The plans of the applications depend on the preliminary information about the site. In the Narva-Mustajõe site the preliminary information about the structures of the road was not correct which caused some changes for the applications implemented on site. Layer stabilisation with old road material could not be done because under the paving there was an ash/concrete layer instead of gravel. Because there would have been too little material for the layer stabilisation if only the paving material was used, it was decided that the mining waste will be stabilised together with the pavement. Appropriate solution was worked out with road engineers and lab technicians, thus this issue does not endanger project overall goals.

The piloting in Simuna-Vaiatu site was delayed mainly because of the issues related to changes in the request of modification, but also it was related to the issue that lab tests were not fully finalised. However the pilot will be implemented during 2012. Some more material testing has been done in the mean while to ensure the quality of the stabilisation. One part of the Narva-Mustajõe pilot was not made because of the problems with the OSA material planned to be used on the site. EF BL8 fly ash was not available in needed amount in autumn 2011, but EE NEJ made necessary technical arrangements in the power plant and now this type of ash is available. Most likely both pilots will be finished in 2012.

We have received feedback that EE and NC consortium agreement is not fully following the EC guidelines. Counterparties are working on necessary corrections.

In November 2011 a request for changes regarding OSAMAT project was submitted to EC. This request included relevant issues for project implementation. We received additional questions from EC on 3/02/2012. The clarifications required by EC have been given at the

beginning of March 2012. By week 13 we have not received final feedback about asked amendments from the Commission.

The first two sections (out of 3) of Narva-Mustajõe pilot site were constructed. Finishing of the Narva-Mustajõe pilot site and start of the Simuna-Vaiatu pilot site construction works were put on hold due to issues rose regarding the changes in the original project plan. This decision of putting the construction works on hold (until official answer to modification request from EC) was made in the work progress meeting on 16/09/2011. The project representatives from EE NEJ, NC and ERA participated in the meeting (MoM in Monitoring report 2 in appendix 6.2).

There could be time frame modifications with pilot site construction activities, because without Commission decision regarding the modification request we are confused about the way to carry out the project actions in compliance with LIFE+ programme regulation. The Commission approval of modification is a platform for further project actions implementation that has been suspended since the request was sent.

If the necessary lab, design and equipment procurement activities (which are important to be completed before starting works on pilot sites) will be carried out during spring/early summer, then it is possible to finalize construction works in 2012. The final deadline of the project OSAMAT is still valid.

3 Administrative part

3.1 Description of project management

Eesti Energia AS (EE) as being the project coordinating beneficiary is managing the OSAMAT project. The coordinator of OSAMAT project according to the Grant Agreement is Mr Aleksander Pototski. According to the modification request (submitted on 11.11.11 to EC) Aleksander Pototski becomes a Project Manager representing Eesti Energia Narva Elektriijaamad AS (EE NEJ – a new associated beneficiary) and Tõnis Meriste becomes the Project Coordinator on behalf of Eesti Energia AS.

Coordinating beneficiary has offices in the capital of Estonia, Tallinn, but also in north eastern Estonia in Baltic Energy station. Associated beneficiary is Nordecon AS (NC) and coordinator from NC is Mr Ain Pähkel. Project co-financer is Estonian Road Administration (ERA) and contact person is Mr Taavi Tõnts.

For external assistance the beneficiaries have conducted a procurement process and as a result The contract has been made with Ramboll (RM):Ramboll Eesti AS and Ramboll Finland OY. External assistant tasks include technical reporting, monitoring, environmental permit procedures, environmental laboratory tests and related documentation with reporting, civil-engineering for design and planning, control of field tests and production of instructions for piloting, quality control and follow-up, reporting for LCA and LCC and other specific tasks described in the project application under the external assistance chapter.

In the Steering Group (SG) are representatives from all the above mentioned institutions but also representative of the Estonian Ministry of the Environment (MoE). The persons participating the SG are Tõnu Aas (EE NEJ), Märt Puust (ERA), Jaanus Taro (NC), Annika Varik (MoE) Peeter Škepast (RM).

There have been several technical meetings between partners and other counterparties.

Numerous meetings have been held between different work teams since the beginning of the project. During this progress period took place the following meetings:

16/09/2011 Work progress meeting between EE NEJ, NC, ERA and RM (see the MoM in Monitoring report 2 in Annex 6.2)

27/09/2011 Work meeting between EE NEJ, NC, ERA and RM

08/11/2011 Work meeting between EE NEJ and RM (Subject was request for changes to EC)

10/01/2012 Work meeting between EE NEJ and RM (Status update of request to changes to EC)

25/01/2012 Work meeting between EE NEJ, NC and RM (Status update of request to changes to EC)

06/02/2012 Work meeting between EE NEJ and RM (Answer to EC letter received on 3/02/2012)

13/03/2012 Work meeting between EE NEJ, RM, NC and ERA (Construction permit issuing)

During the first reporting period the following reports were compiled and presented to EC:

1. Inception Report (project progress 1.09.2010-15.03.2011)
2. Report of Preparation Action

3. OSAMAT applications and test methods
4. Compilation report of technical, environmental and economical criteria for materials and applications and test procedures
5. Environmental screening/preliminary EIA (in Estonian)

During the second progress reporting period the following reports were compiled:

1. Progress report 1 (project progress 1.09.2010-31.08.2011)
2. Monitoring report 1
3. Preliminary Environmental Impact Assessment Report (modified version)
4. Environmental survey programme
5. Report of civil-engineering and environmental survey
6. Materials report
7. Narva-Mustajõe test section detailed design
8. Written instruction for the implementation of pilot applications 2011
9. Written instructions for the quality control and follow-up of pilot applications
10. Carbon footprint report

During the third progress period (1.09.2010-15.03.2012) the following reports were compiled:

1. Progress report 2 (this report and following annexes)
2. Monitoring report 2
3. Intermediate report 2 of Narva-Mustajõe pilot 2
4. LCA and LCC methodology draft

3.2 Organigramme of the project team and the project management structure

In OSAMAT project Eesti Energia Narva Elektriijaamad AS has been included as associated beneficiary as described in the request for modification.

The Organigramme for the project is given below (Figure 1). The project team consists of members of the beneficiary organisations EE, EE NEJ and NC and co-financer ERA.



Figure 1. General Organigramme of OSAMAT project

3.3 Work teams according to actions

The work teams of each action involve the representatives from all parties. In the following table are given the responsible persons of the work teams.

Action	Eesti Energia AS	Eesti Energia Narva Elektriijaamad AS	Nordecon	Road Administration	Ramboll
Preparations	Mr Tõnis Meriste	Mr Aleksander Pototski	Mr Jaanus Taro	-	Mr Hendrik Puhkim
Materials	Mr Tõnis Meriste	Mr Aleksander Pototski	-	-	Mr Pentti Lahtinen
Applications	Mr Tõnis Meriste	Mr Aleksander Pototski,	Mr Ain Pähkel	Mr Rainer Kuldmaa	Mr Andres Brakmann
Piloting	Mr Tõnis Meriste	Mr Aleksander Pototski	Mr Andrei Anissimov	Mr Rainer Kuldmaa	Mr Andres Brakmann
Verification	Mr Tõnis Meriste	Mr Aleksander Pototski	Mr Ain Pähkel	Mr Rainer Kuldmaa	Mr Hendrik Puhkim
Dissemination	Mr Tõnis Meriste	Mr Aleksander Pototski	Mr Ain Pähkel	Mr Rainer Kuldmaa	Mr Hendrik Puhkim
Management	Mr Tõnis Meriste	Mr Aleksander Pototski	Mr Jaanus Taro	-	Mr Hendrik Puhkim

3.4 Partnership agreements status and key content

Partnership agreement between Eesti Energia and Nordecon was signed on 31th of May 2011. According to the agreement NC will be responsible for carrying out pilot site construction works.

We have received feedback that EE and NC consortium agreement is not fully following the EC guidelines. Counterparties are working on necessary corrections.

4 Technical part

The project is planned to be implemented by means of seven distinct but interdependent actions that are listed in the following (Actions 1 – 7).

4.1 Actions

4.1.1 ACTION 1: PREPARATIONS

Preparations include activities that are preliminary activities of the project and ascertain a smooth start of the actual LIFE-project. Most of the preliminary activities started before the LIFE project period but some continued at least during the first months of the LIFE project and some continue to this day.

4.1.1.1 In more detail the activities imply following:

- Action 1.1 Design and development of new equipment for the project – status: ongoing

As stated in the progress report no 1 EE and NC are still willing to rent the mass-stabilisation equipment instead of purchasing it, detailed information about this issue is given in the request for modifications submitted to EC in November 2011.

During year 2011 there have been announced two procurements for mass-stabilisation equipment rental, unfortunately there were no bidders. The third procurement will be announced after we get the Commission approval about modification request, hopefully during 2012.

If the procurement of mobile mixing equipment will be carried out successfully during spring 2012, then the current projects time-schedule is valid and mass-stabilisation on Simuna-Vaiatu pilot site can be carried out as planned.

- **Action 1.2** Decision of one or two appropriate piloting sites – status: completed

We have decided that piloting will take place on 2 road sections: Narva-Mustajõe and Simuna-Vaiatu.

- **Action 1.3** Starting the permit procedures with discussions with the environmental authorities – status: completed

ERA has decided not to initiate full EIA. A preliminary environmental impact assessment (EIA) report was compiled for decision-making process (see progress report no 1 annex 6.4). The environmental authorities have confirmed that the licence for handling hazardous waste is not required as OSA is considered as material and not a waste (letter from Viru Region Environmental Board to EE on 22.02.2012 nr V 8-2/12/3980-2, which was also forwarded to EC on 28.02.2012).

- **Action 1.4** Determination of acceptance criteria for materials and applications and preparing of material test programme – status: completed

Detailed info about this action is given in Inception report annex 6.4 (Compilation report)).

- **Action 1.5** Checking of the details of the project plan with respect to the plans of the project proposal and eventual revision on the basis of emerged needs to change something – status: completed
- **Action 1.6** Making and signing consortium agreement between the beneficiaries – status: ongoing

Consortium agreement was signed 31 May 2011. Shortcomings have occurred in the agreement text and these are being dealt with.

- **Action 1.7** Choices for and agreements with the participants of the Steering Group (SG) of the project are made before start of the LIFE project – status: completed

Info about SG members can be found in Inception reports annex 6.1 (Memo of kick-off meeting).

The progress of the action in 2010 and plans for 2012 are described in the following table:

Indicator	Planned deadline	Actual progress
<i>Deliverables</i>		
Decisions of new equipment for the project	01.09.2010	Completed. Detailed information was given in the request for administrative and financial changes.
Preparations Action report	15.12.2010	Completed
Compilation (report) of technical, environmental and economical criteria for materials and applications and test procedures	28.02.2011	Completed
Environmental permits	31.05.2011	Completed
<i>Milestones</i>		
<ul style="list-style-type: none"> • Consortium agreement • Pilot sites chosen • Steering Group ready 	1.09.2010	Completed, but consortium agreement is still being dealt with
Starting to compile the report of criteria for materials and applications and about test procedures	01.10.2010	Completed
Report of Preparations Action started and finished	01.09.2010 – 15.12.2010	Completed
Finishing of the compilation report of criteria for materials and applications and about test procedures	01.02.2011	Completed
All complementary data and EIA for the	28.02.2011	

environmental permit submitted		Completed
Equipment of EESTI ENERGIA and Nordecon are available for field testing latest	31.03.2011	In progress. Tendering procedure will be carried out after Commission approval of modification request
All other potentially pending preparations activities are finished	31.05.2011	Completed

4.1.2 ACTION 2: MATERIALS

Materials Action is carried out with help of geotechnical and chemical laboratories in order to ascertain appropriate materials based on OSA for the different pilot applications. The Action also demonstrates the required test procedures to ascertain the quality of OSA materials.

Material tests started in 2011 and will be performed until the ends of the year 2012.

4.1.2.1 In more detail the activities imply following:

- **Action 2.1** Sampling of required materials – status: completed

The soil samples, OSA samples and mining waste samples were taken in February 2011 and transported to a chosen laboratory in Finland for testing and laboratory analyses. For carrying out laboratory tests and analyses a separate report has been compiled – OSAMAT applications and test methods (was presented with Inception report as annex 6.3).

- **Action 2.2** Characterisation of the material components – status: completed

We tested in laboratory 4 different type of oil-shale ashes and additionally mining waste. In the laboratory different analyses were made to find appropriate binder mixture for stabilization works. The scope of laboratory works included water content, loss of ignition, active lime, pH, niton, particle size distribution, compatibility, Preparation of the aggregate specimens, preparation of the peat specimens, unconfined compressive strength, freeze-thaw durability test and soft wall permeability test with constant pressure. In order to do testing test pieces were done.

In detail the content and results of material components tests was given in Progress Report 1 Annex 6.7.

- **Action 2.3** Production of functional material recipes – status: ongoing

Detailed description about test programme for production of functional material recipes was presented in the Inception report annex 6.4.

Three sections with stabilisation were designed to be constructed, each of them with different oil shale fly ash fraction as a binding agent (3 different recipes). The three different sections were designed as the provider of the fly ash, Eesti Energia, requested experimentation with at least three different fractions (cyclone ash, EF BL 8 fly ash, EF BL3 OBT fly ash). However construction of the section with OSA EF BL8 fly ash had to be postponed due to extraction problems of that ash fraction. The other two sections were constructed as planned.

Test showed that large fraction mining waste cannot be used in stabilisation. However the small fraction type mining waste (gravel) can be used for stabilisation and this was implemented on Narva-Mustajõe pilot site.

At the moment the recipes produced for Narva-Mustajõe first part of the pilot site can be found in the Narva-Mustajõe pilot site report (see current report Annex 6.3).

- **Action 2.4** Determination of the potential variation of the different material components and the effect of the variation on the properties of the materials based on recipes – status: will start like planned

Determination of the potential variation of the different material components and testing of the effect of the variation on the properties of recipes has not been started yet. However in order to find out if it is potential to use wet binders that may have been stored outside, then this kind of testing will be done. However all the pilots are made with dry binders (the water addition made only hours before constructing).

- **Action 2.5** Control of the materials to be used in the pilot applications – status: ongoing

The control of the materials was done during the Narva-Mustajõe piloting. This included for example water content tests to determine the need for more water. This is important in relation with the quality of the structure.

The control of the materials is related to the actual piloting (done only hours before the constructing) and for example issues concerning Narva-Mustajõe pilot site so far are written out in the Narva-Mustajõe pilot site report (see current reports Annex 6.3).

The progress of the actions since 2010 and plans for 2012 are described in the following table:

Indicator	Planned deadline	Actual progress
<i>Deliverables</i>		
Intermediate reports in Progress Reports (1) (Canceled)	28.02.2011	Completed
Intermediate report in Progress Reports (1)	30.08.2011	Completed
Intermediate report in Progress Reports (2)	28.02.2012	Completed, see current report Annex 6.3
Intermediate report in Progress Reports (3)	30.08.2012	Like planned
<i>Milestones</i>		
Start of the Materials Action	01.09.2010	Completed
Choice of the laboratory for chemical analysis has been made latest on	15.09.2010	Completed
Sampling carried out, materials available and tests have started latest	30.09.2010	Completed
Intermediate report (1) for Progress Report started	01.02.2011	Completed

Tests for the piloting in 2011 have been finished	31.05.2011	Completed
Intermediate report (2) for Progress Report started	1.08.2011	Completed
Intermediate report (3) for Progress Report started	1.02.2012	Completed
Tests for the piloting in 2012 are finished	31.05.2012	Like planned
Intermediate report (4) for Progress Report started	01.08.2012	Like planned

4.1.3 ACTION 3: APPLICATIONS

Applications Action will ascertain that the piloting Action 4 is based on appropriate and efficient plans to produce successful applications with respect to general civil engineering criteria, and that the project will achieve full and appropriate information and data for the evaluation of the results during the verification procedure of Action 5.

4.1.3.1 In more detail the activities imply following:

- **Action 3.1** Geotechnical and –environmental site investigations – status: completed

Results of geotechnical and environmental site investigations are given in Progress report no 1 annex 6.6 “Report of civil-engineering and environmental survey”.

- **Action 3.2** Design and planning uses materials data from Action 2 for the dimensioning of the different pilot structures – status: ongoing

Narva-Mustajõe technical design was accepted during this period and construction permit was issued on 10th of August 2011. In parallel we prepared the technical design of Simuna-Vaiatu pilot site and this activity is still ongoing; in the end of August we submitted design documentation to the Estonian Road Administration for comments. This action was put on hold based on the decision made at the meeting 16/09/2011. In progress meeting on 13/03/2012 project stakeholders made decision that civil engineering work for both test sections will continue immediately to ensure that construction works can be carried out during summer-autumn 2012. New expected deadline for issuing Simuna-Vaiatu test section construction permit is summer 2012.

- **Action 3.3** The pilot implementation of each structure – status: ongoing

The plans and written instructions were made for the Narva-Mustajõe pilot in Estonian (Attached to current progress report no 2, annex 6.3). The making of the plans and instructions for the Simuna-Vaiatu pilot has been started but cannot be finished before the material tests (recipes for mass-stabilisation are in final phase) are finished.

- **Action 3.4** Quality control activities before and during pilot implementation as well as follow-up – status: ongoing.

Written instructions for quality control and follow-up activities (Progress report no 1 annex 6.10) have been compiled and quality control activities based on those guidelines have started on Narva-Mustjõe site with the quality control during the piloting and will be continued with follow-up on the following summer/autumn (year 2012). Tentative plans about the quality control of Simuna-Vaiatu have been made and will be finished after the completion of the instructions.

- **Action 3.5** Field tests are carried out in order to control and to manage new equipment, construction methods and technologies – status: ongoing

The field tests are done during the piloting and the results are reported in the piloting report. In Narva-Mustajõe site for example the water content of the material was measured on site and instructions for the construction were given according to the results. In the construction with OSA the water content and the compaction of the material plays an important role in order to achieve a good quality of a structure. Results can be found in current progress reports annex 6.3.

The progress of the actions since 2010 and plans for 2012 are described in the following table:

Indicators	Planned deadline	Actual progress
<i>Deliverables</i>		
Report of civil-engineering and environmental survey	28.02.2011	Completed
Written instruction for the implementation of pilot applications 2011	31.05.2011	Completed
Written instructions for the quality control and follow-up of pilot applications	31.05.2011	Completed
Written instruction for the implementation of pilot applications 2012	31.05.2012	Like planned
Written instructions for the quality control and follow-up of pilot applications 2012	31.05.2012	Like planned
<i>Milestones</i>		
Start of the Applications Action	30.09.2010	Completed
Civil-engineering and environmental survey finished and reporting started	30.11.2010	Completed
Planning, designing and production of instructions for piloting 2011 finished	31.05.2011	Completed

Planning, designing and production of instructions for piloting 2012 finished	31.05.2012	Like planned
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4.1.4 ACTION 4: PILOTING

Piloting Action is going to demonstrate the practical implementation of different types of civil-engineering applications with materials based on OSA.

We are prepared to carry out construction works on both pilot sites according to project plan during summer-autumn 2012. In progress meeting on 13/03/2012 project stakeholders made decision that civil engineering work for both test sections will continue immediately to ensure that construction works can be carried out during summer-autumn 2012. New expected deadline for issuing Simuna-Vaiatu test section construction permit is summer 2012.

4.1.4.1 In more detail the activities imply following:

- **Action 4.1 Layer stabilisation** – status: ongoing

Layer stabilisation of existing road base courses with binders based on OSA was done partially during 2011 and will continue in 2012. Differing from the original plans, the layer stabilisation was made for existing road base course together with mining waste. Two sections with two different OSA binders (OSA CYCL – length 450m and EF BL3 OBT – length 450 m) are finished and one more (EF BL 8 fly ash) will be made during 2012. The final total length of the structure is planned to be 1,6 kilometres.

- **Action 4.2 Mass stabilisation** – status: is planned to start in 2012 at Simuna-Vaiatu pilot site

Mass stabilisation action has not started yet as recipe and design compilation is ongoing.

- **Action 4.3 Mixtures** of different types of fractions of oil-shale mining waste were planned to be stabilised and tested as aggregate for structural road base course. Test showed that large fraction mining waste cannot be used in stabilisation. However the stabilisation with small fraction mining waste (gravel) was done together with the layer stabilisation (see action 4.1). The distance planned for this type of application is now added to layer stabilisation distance. In general the total length of pilot sites will cover the estimated distances stated in the project plan.

The progress of the actions since 2010 and plans for 2012 are described in the following table:

Indicators	Planned deadline	Actual progress
<i>Deliverables</i>		
N/A during this reporting period	-	-
<i>Milestones</i>		
Start of action	01.03.2011	Completed

Final securing of the timetable, materials and equipment for pilot 2011	31.05.2011	Completed
Piloting 2011 starts 01/08/2011 and is finished	15.12.2011	In progress
Final securing of the timetable, materials and equipment for pilot 2012	31.01.2012	Will be delayed , new deadline depends on feedback from EC regarding our request for changes.
Piloting 2012 starts 01/04/2012 and is finished	15.10.2012	Will be delayed , new deadline depends on feedback from EC regarding our request for changes.

4.1.5 ACTION 5: VERIFICATION

Verification Action is needed to give the project stakeholders proof that the methods, materials and applications based on OSA are environmentally safe and technically and economically feasible. The Action uses instructions from Action 3 and reported information and data from Actions 2 and 3.

4.1.5.1 In more detail the activities imply following:

- **Action 5.1** Quality control procedures during the pilots – status: ongoing

The load bearing values were measured before the construction from both sites. In Narva-Mustajõe site samples were taken from the road to determine the compressive strength of the structure after the stabilisation. The next quality control procedure will be to compare the situation of the road after the first winter (pictures and measurements) according to the quality control plan. The Environmental effects are also studied from the samples that were taken from the Narva-Mustajõe site, by testing the leaching of harmful substances from the samples.

- **Action 5.2** Long-term follow-up procedures – status: ongoing

The first long term follow-up procedures will be done in Narva-Mustajõe site.

- **Action 5.3** Environmental life-cycle assessment and life-cycle costing of the pilot applications – status: ongoing

The assumptions for the LCA and LCC are made and the methodology of the process is decided. Draft version with LCA and LCC methodology can be found as annex 6.4. We plan to continue with studies and work on the draft report version.

The progress of the actions since 2010 and plans for 2012 are described in the following table:

Indicators	Planned deadline	Actual progress
<i>Deliverables</i>		
N/A during this reporting period	-	-

<i>Milestones</i>		
Start of the Action	01.03.2011	Completed
Environmental background values: start by sampling and finished with results	15.06.2011	Completed
Plans and choices for LCA and LCC available	30.06.2011	Completed
Start of Quality Control at pilot site 2011	01.08.2011	In progress
Start of LCA and LCC studies	01.08.2011	In progress
Quality Control at pilot site 2011 finished	15.12.2011	Completed for the constructed part of Narva-Mustajõe pilot site
Quality control at pilot site 2012 finished	15.10.2012	May be delayed , the deadline depends on feedback from EC regarding our request for changes.
Start of Follo-up at pilot site 2011	31.01.2012	In progress

4.1.6 ACTION 6: DISSEMINATION

Dissemination Action is going to disseminate and communicate the results of the project to the target groups of the project so that the knowledge gained during the project can benefit whole Europe.

4.1.6.1 In more detail the activities imply following:

- **Action 6.1** Webpage – status: ready and updating ongoing (www.osamat.ee)
- **Action 6.2** LIFE notice boards with LIFE-logo at piloting sites – status: ready and ongoing

Notice board on Simuna-Vaiatu pilot area will be installed before the pilot construction.

- **Action 6.3** DVD-presentation – status: ongoing

Materials' gathering for DVD presentation is continuing this year according to project activities. Filming of Narva-Mustajõe stabilisation works was carried out in autumn 2011. Film crew is waiting for the next field activities to start.

- **Action 6.4** Guidelines for the European practice – status: will start like planned
- **Action 6.5** Layman's report – status: will start like planned
- **Action 6.6** Also slide presentation about the project methods and results – status: ongoing
- **Action 6.7** Road Shows will be arranged to specified small target groups in some European countries – status: will start like planned
- **Action 6.8** International Workshop will be arranged in Estonia in spring-summer 2014 – status: will start like planned

- **Action 6.9** All other published articles, reports and conference papers about the project – status: ongoing

We are participating with presentations at the following conferences:

1. Nordic Geotechnical Meeting, 9-12.05.2012 in Copenhagen;
2. WASCON 2012, 30.05-1.06 in Gothenburg

We presented OSAMAT project activities and result at different conferences:

- ✓ Results (laboratory) of stabilisation of road structure in poster presentation at “Ash utilisation 2012” conference that was held in Stockholm, Sweden on 24-27 of January 2012. The poster is attached as Annex 6.5.
- ✓ Results (laboratory) of stabilisation of peat at „Winter Academy 2012“ organised by Tallinn University of Technology, Estonia that was held on 12 of March 2012. Presentation slides are attached as Annex 6.6 (please see pages 12, 13, 14).
- ✓ Overview of the OSAMAT project activities at "20th International Symposium on Mine Planning and Equipment Selection" that was held in Almaty, Kazakhstan on 12 of October 2011. Presentation slides are attached as Annex 6.7 (please see pages 6, 7).
- ✓ Introducing OSAMAT project activities to the collegium of scientists from Tallinn University of Technology, Estonia for further collaboration on 28 of October 2 011. Presentation slides are attached as Annex 6.8 (please see pages 6, 7, 8).

- **Action 6.10** Public local and national events – status: will start like planned

Will be arranged according to progress of pilot sites construction works. We will seriously consider on holding two local events including press releases.

The progress of the actions since 2010 and plans for 2012 are described in the following table:

Indicators	Planned deadline	Actual progress
<i>Deliverables</i>		
Press release about the project and piloting	01.07.2011	Completed
<i>Milestones</i>		
Start of the Action	01.09.2010	Completed
Starting to create the Webpage	15.09.2010	Completed
Webpage ready for use	31.10.2010	Completed
Manuscripts for the DVD start	31.10.2010	Completed
Starting to prepare the slide presentations	15.01.2011	Completed
Preparing of paper and	15.01.2011	Completed

poster for the conference in 2011 start		
Oil Shale Symposium in Estonia 2011	31.03.2011	Symposium did not take place
Start arrangement of LIFE notice boards for pilots 2011 and 2012	30.04.2011	Completed
1 st version of slide presentations finished	30.04.2011	Completed
Arrangements for Local event for piloting start	31.05.2011	Not started
DVD production about the project, its methods and results start	30.06.2011	Completed
Local event(s) at piloting site(s)	15.07.2011	Not started , local event will take place when mass-stabilization works are carried out on Simuna-Vaiatu test section
Preparing of paper and poster for the conference in 2012 start	15.01.2012	Completed
Oil Shale Symposium in Estonia 2012	31.03.2012	Is not going to take place
Wascon in Sweden 2012	31.03.2012	Like planned , will take place 30.05-1.06

4.1.7 ACTION 7: MANAGEMENT

Management Action is active throughout the project period. It involves the overall management and co-ordination of the project according to the details of the project plan and financial budget and with respect to the contract with the Commission.

4.1.7.1 In more detail the activities imply following:

- **Action 7.1** Consortium Agreement – status: ongoing

Consortium agreement was signed on 31th of May 2011. Shortcomings have occurred in the agreement text and these are being dealt with.

- **Action 7.2** The Steering Group – status: completed

Info about SG members can be found in Inception reports annex 6.1 (Memo of kick-off meeting).

- **Action 7.3** Carbon Footprint – status: ongoing

The first version of Carbon Footprint report was presented as annex 6.11 in Progress report no 1.

- **Action 7.4** The activity reports – status: ongoing

The progress of the actions since 2010 and plans for 2012 are described in the following table:

Indicator	Planned deadline	Actual progress
<i>Deliverables</i>		
Consortium agreement of the beneficiaries	1.09.2010	Completed Consortium agreement was signed on 31th of May 2011. Shortcomings have occurred in the agreement text and these are being dealt with.
Inception Report	15.12.2010	Completed
		<i>Inception report contains the material and progress of period from September 2010 up to March 2011. Progress report nr 1 was submitted on 15.09.2011 instead of Progress report nr 2.</i>
Progress Report Nr 1 with Carbon Footprint report Nr 1 and Monitoring Report Nr 1	15.03.2011	Completed
Progress Report 2 and Monitoring Report Nr 2	15.03.2012	Completed
Midterm Report with payment request with Carbon Footprint report Nr 2 and Monitoring Report Nr 3	15.09.2012	Like planned
<i>Milestones</i>		
SG meeting (1); kick-off meeting	3.09.2010	Completed
Start to create the methodology for Carbon Footprint data gathering, calculations and benchmarking	15.09.2010	Completed
Start to compile Inception Report	15.11.2010	Completed
Start to compile Progress Report and Monitoring	15.01.2011	<i>Deadline for the Inception report was changed to 15.03.2011 and therefore</i>

Report Nr 1		<i>progress report was cancelled for the same date.</i>
SG meeting (2)	1.03.2011	Completed
Start to compile Progress Report Nr 1, Carbon Footprint report Nr 1 and Monitoring Report Nr 1	15.07.2011	Completed
SG meeting (3)	01.09.2011	Not completed , but there have been taken place several meetings between SG members
Start to compile Progress Report Nr 2 and Monitoring Report Nr 2	15.01.2012	Completed
SG meeting (4)	01.03.2012	Not completed , but there have been taken place several meetings between SG members
Start to compile Midterm Report with payment request, Carbon Footprint report Nr 2 and Monitoring Report Nr 3	15.06.2012	Like planned
SG meeting (5)	01.09.2012	Like planned

4.2 Envisaged progress until next report.

A Gantt chart which illustrates OSAMAT project progress since 1.09.2010 until 15.03.2012 and planned actions from 1.03.2012 up to 15.09.2012 is given in Annex 6.1.

4.3 Impact

During autumn 2011 an issue was raised concerning a need for waste licence for OSAMAT project piloting activities. Environmental Board had an opinion that this licence is needed when OSA is used in construction activities. We made a thorough explanation, that OSA is material according to REACH regulation. For example Estonian cement production industry is using OSA as material and not as waste in production process and this is accepted by environmental authorities.

As a result of productive discussions with the Environmental Board, they have issued a letter stating that waste license is not needed when OSA is used as certified material in construction works.

4.4 Outside LIFE:

We have initiated in parallel other OSA-related projects.

For example studies in Klaipeda, Kokkola and Jätkasaari harbours were finalised in autumn 2011 and the results showed that OSA can be used successfully for stabilisation works. Study reports will be available in the OSAMAT project website.

5 Financial part

5.1 Costs incurred.

Budget breakdown categories	Total cost in €	Costs incurred from the start date to 30.03.2012 in €	% of total costs
1. Personnel	864 500	164 228.08	19%
2. Travel and subsistence	20 500	4 746.55	23.2%
3. External assistance	474 000	414 577.22	87.5%
4. Durable goods			
Infrastructure		0	
Equipment	700 000	0	0,00%
Prototype		0	
5. Land purchase / long-term lease		0	
6. Consumables	363 500	214 777.62	59.1%
7. Other Costs	63 000	13 190.74	20.9%
8. Overheads	149 480	27 220.38	18.2%
TOTAL	2 634 980	838 740.59	31.8%

It could be seen that the biggest part of the costs refers to the categories „external assistance“ (87,5%) and „consumables“ (59,1%), that could be explained by the project specifics, where the first years of the projects (2010-2012 years) are more tense with project actions and thus more money consuming than the rest 2013-2014 project years. In the first years the costs of all the 7 project actions should be covered in comparing with only 3 actions (verification, dissemination and management) referring to the rest of the project years.

At the same time with beginning of project actions implementation we saw that the changes in budget categories were needed. Concretely the actions implementation demands more money for “external assistance” and “consumables” categories. That was one of the reasons for project modification request submission, where we ask to move more to these categories and to leave less money to other categories.

After modifications approval the costs of the “external assistance” and “consumables” categories will change and be lower.

The total costs of the project at the moment is 838 740,59 euro. We are starting to prepare Mid-Term Report to submit it to 15.09.2012 as planned.

Financial break-down by Actions (including overhead costs):

Action number and name	Foreseen costs	Spent so far	Remaining	Projected final cost
Action 1 "PREPARATIONS"	38 000	38 000.0	0.0	38 000
Action 2 "MATERIALS"	132 875	90 595.1	42 279.93	132 875
Action 3 "APPLICATIONS"	868 475	123 019.2	745 455.79	868 475
Action 4 "PILOTING"	965 875	432 938.2	532 936.77	965 875
Action 5 "VERIFICATION"	185 175	20 250.5	164 924.5	185 175
Action 6 "DISSEMINATION"	142 300	31 983.8	110 316.24	142 300
Action 7 "MANAGEMENT"	152 800	101 953.8	50 846.18	152 800
TOTAL	2 485 500	838 740.6	1 646 759.41	2 485 500

6 Annexes

- 6.1 OSAMAT progress Gantt chart**
- 6.2 Monitoring Report 2**
- 6.3 Intermediate Report 2 of Narva-Mustajõe pilot**
- 6.4 OSAMAT LCA LCC methodology**
- 6.5 OSAMAT project poster presented at “Ash utilisation 2012” conference**
- 6.6 OSAMAT project slides presented at „Winter Academy 2012“**
- 6.7 OSAMAT project slides presented at "20th International Symposium on Mine Planning and Equipment Selection"**
- 6.8 OSAMAT project slides presented at the collegium of scientists from Tallinn University of Technology**