LIFE Project Number

LIFE09 ENV/EE/000227

Inception Report

Covering the project activities from 01/09/2010 to 28/02/2011

Reporting Date

05/04/2011

LIFE+ PROJECT NAME or Acronym

OSAMAT

Data Project

Project location	Estonia
Project start date:	01/09/2010
Project end date:	31/12/2014
Total budget	€ 2 634 980
EC contribution:	€ 1 142 490
(%) of eligible costs	50

Data Beneficiary

Name Beneficiary	EESTI ENERGIA AS
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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

NC – Nordecon AS

ERA – Estonian Road Administration

MoE – Minstry of Environment

RM – Ramboll

SG – Steering Group

EC – European Commission

2 Executive summary

2.1 General progress

The preparations for the project started in September 2010 with meetings of the beneficiary representatives. The OSAMAT project kick off meeting was held on 21th October 2010 and by now a lot of productive preparatory work has been carried out. The memo of the kick of meeting is given in the annex (Annex 6.1).

The most important activities that have been successfully carried out since the kick off meeting are the compilation of Steering Group, activating of the project homepage (www.osamat.ee), the choosing of the piloting locations, the start of material laboratory testing and permitting procedures have started as well.

In general it can be said that all the parties of the project have co-operated and given their contribution to a smooth start of OSAMAT LIFE+ project.

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 the slow start of Action 1. See chapter 2.3.

2.3 Problems encountered

The co-financing agreement between Eesti Energia and Estonian Road Administration was signed in the beginning of March 2011. Due to the fact that co-financing agreement was delayed the partnership agreement between Eesti Energia and Nordecon is still in approval phase and not yet signed.

It is expected that the partnership agreement shall be signed latest in May 2011. As soon as the contract is signed the copy will be delivered to European Commission.

However it is important to emphasise that mentioned delayed signing of the agreement has not delayed and will not delay the actual progress of the project. All the preparatory and planned activities for the first period have been taken place and if not fully finished yet then at least started and on-going.

The above mentioned situation does not compromise the project's final deadline. Continuous and active cooperation between relevant counterparties has been taken place to resolve issues regarding contracts.

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 main representative of OSAMAT project is Mr Aleksander Pototski from Eesti Energia AS, also he is the coordinator of the project. 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 and as a result a subcontract has been made with consortium Ramboll Eesti AS/Ramboll Finland OY (RM). External tasks are carrying out technical reporting, monitoring, environmental permit procedures, environmental laboratory tests and related documentation with reporting, civil-engineering for design and planning, inclusive control of field test and production of instructions for piloting, quality control and follow-up, carrying out reporting for LCA and LCC and other tasks described in 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). In the SG are Tõnu Aas (EE), Märt Puust (ERA), Jaanus Taro (NC), Annika Varik (MoE) Peeter Škepast (RM).

The active co-operation of the beneficiaries involves beneficiary meetings at intervals of three to six months but also other work meetings, and active discussions on phone and by e-mail. As by now there has been launched projects website, this also can be used as a channel of information between the beneficiaries and other parties involved in the project.

All of the participating parties have been involved in their tasks and so far co-operation has been productive.

The kick off meeting of the project took place in the quarters of the Ministry of the Environment on 21 of October 2010. Next progress meeting is planned to be held in the beginning of April.

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

3.2 Organigramme of the project team and the project management structure

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

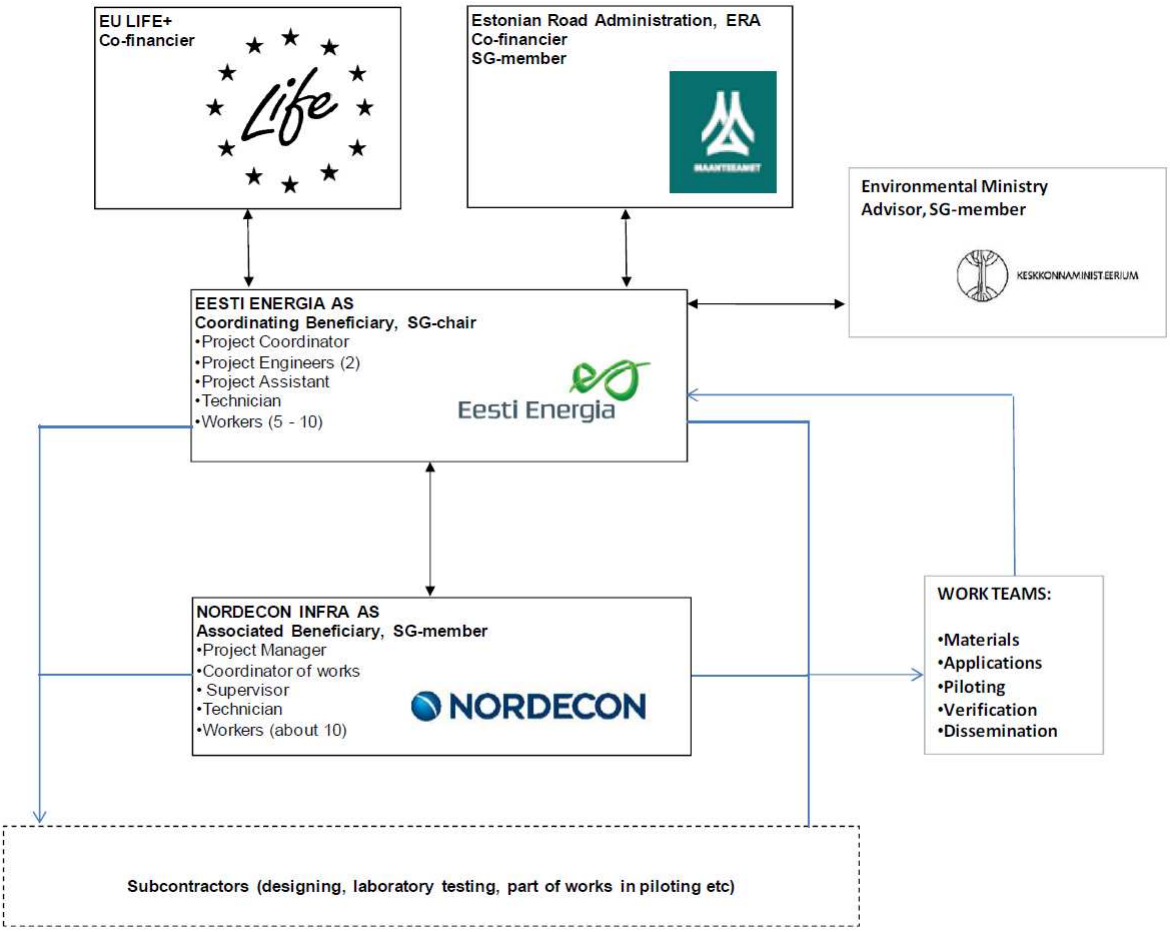

Figure 1. General Organigramme of OSAMAT project

Figure 2 gives a more detailed and clear view of the OSAMAT organisation part. There is one subcontractor Ramboll which participates in the project team as an external consultant. Subcontractor will be used during the OSAMAT project period.

Figure 2. Specified Organigramme of the OSAMAT project

EE is the project coordinator and responsible for the project management, including the contacts and reporting to the European Commission.

3.3 Partnership agreements status and key content

In beginning of March 2011 the co-financing agreement with ERA was signed. The partnership agreement with NC has not yet been signed but the agreement is in revision phase. It is highly important to emphasise that never the less of the fact that the actual signing of the partnership agreement has not fully taken place most of the preparations actions have been completed and all of the projects participants have been working with the project.

Based on the above mentioned, the key content of the partnership agreement between EE and NC will be given in the next Progress report. Partnership agreement in general follows the proposed template of EC. According to the agreement NC will be responsible for carrying out pilot site construction works.

In general the consortium agreement contains beneficiary's official names and addresses, background and significance of the consortium, rights and obligations. It is expected that the partnership agreement shall be signed latest in May 2011. As soon as the contract is signed the copy will be delivered to European Commission.

4 Technical part

Over 90 % of the Estonian basic power supply is covered by oil shale – fired thermal power plants. Every year about eleven million tonnes of oil shale is fired. The most serious problem today is the handling of oil shale ashes (the ash content of oil shale is 45-47 %) as more than six million tonnes of these ashes are produced annually. The problems of oil shale ash, waste rock and semi-coke relate to the chemical-mineralogical composition. At the moment the oil shale related waste deposits are huge and contain high volumes of important raw materials for civil engineering purposes.

The purpose of this project is to show that it is possible to convert deposited and newly generated Oil Shale Ash (OSA) into valuable secondary materials for civil-engineering applications. The more efficient and waste-free use of oil shale would reduce its impact on the environment while also generating economic benefits.

In longer term (five to ten years after the end of the project) the civil-engineering materials based on OSA will be accepted and become a common practice in Europe and provide a significant competitor to cement and other commercial additives in Europe. OSA is a by-product of energy production and its generation does not require energy and generate airborne releases of greenhouse gases. On the other hand, the production of cement generates close to 0,7 tonnes CO2 per one tonne cement. The utilisation of OSA may help in reducing CO2 emissions at least by 4,2 Million tonnes each year! In order to avoid adverse impacts of transports, OSA additives should be transported mainly by rail in Europe – in lorries only within a short radius or when other transport methods are not available.
The problem is related to European environmental policy and legislation and the priorities for the treatment of residues: minimise, recycle and dispose. This project will particularly contribute to the implementation of the environmental policies on better resource efficiency and on waste management as stated in Waste Framework Directive (2008/98/EC), its principles on End-of-Waste (EoW; article 6), Estonian Waste Act, Sixth Community Environment Action Programme (decision No 1600/2002/EC), the Thematic Strategy on the prevention and recycling of waste [COM(2005) 666 final], the Thematic Strategy on the sustainable use of natural resources [COM(2005) 670 final], and the Communication from the Commission to the Council and the European Parliament on the Interpretative Communication on waste and by-products [COM(2007) 59 final].

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. Preliminary activities included choices of the piloting site(s), making of the consortium agreement, choices of the Steering Group participants, contracts for the new equipment for project purposes, starting and finalising the permit application procedure, determination of acceptance criteria for materials and applications, decision on the detailed material test program, and checking and eventual revision of the details of project plan.

The detailed description of the activities is given in the annexed *Report of Preparation Action*, Annex 6.2. Many preparations activities have been completed during the reporting period. Most important is that the piloting sites have been chosen. There has been delay in the completion of some of the activities (signing of the consortium agreement for example) but the delays have no impact on the implementation of other actions of the project.

The progress of the action in 2010 and plans for 2011 are described in the following table:

Indicator	**Planned deadline**	**Actual progress**
Deliverables		
Decisions of new equipment for the project	01.09.2010	Delayed but finished during reporting period
Preparations Action report	15.12.2010	Delayed but finished during reporting period, Annex 6.2
Compilation (report) of technical, environmental and economical criteria for materials and applications and test procedures	28.02.2011	Finished like planned, Annex 6.4
Environmental permits	31.05.2011	Process started and on-going
Milestones		
• Consortium agreement • Pilot sites chosen • Steering Group ready	1.09.2010	• Agreement signing in process. **Hereby we are asking for extension of deadline up to 31 May**; • Delayed but pilot sites are chosen; • SG ready
Starting to compile the report of criteria for materials and applications and about test procedures	01.10.2010	Like planned
Report of Preparations Action started and finished	01.09.2010 – 15.12.2010	Delayed but finished during reporting period
Finishing of the compilation report of criteria for materials and applications and about test procedures	01.02.2011	Like planned
All complementary data and EIA for the environmental permit submitted	28.02.2011	Like planned, Annex 6.5

Equipment of EESTI ENERGIA and Nordecon are available for field testing latest	31.03.2011	Equipment chosen, preliminary agreements made
All other potentially pending preparations activities are finished	31.05.2011	Like planned and on-going

4.1.2 ACTION 2: MATERIALS

Materials Action has been 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. The activities included sampling of required materials; characterisation of the material components; production of functional material recipes; 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; and control of the materials to be used in the pilot applications. The results of this Action will be used in Actions 3 and 4.

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* in Annex 6.3.

The progress of the action in 2010 and plans for 2011 are described in the following table:

Indicator	**Planned deadline**	**Actual progress**
Deliverables		
Intermediate reports in Progress Reports (1)	28.02.2011	Finished like planned, see annexes 6.2-6.5
Milestones		
Start of the Materials Action	01.09.2010	Finished like planned
Choice of the laboratory for chemical analysis has been made latest on	15.09.2010	Finished like planned
Sampling carried out, materials available and tests have started latest	30.09.2010	Delayed but finished during reporting period
Intermediate report (1) for Progress Report started	01.02.2011	Finished like planned, see annexes 6.2-6.5
Tests for the piloting in 2011 have been finished	31.05.2011	In progress
Intermediate report (2) for	1.08.2011	Like planned

Progress Report started		

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. The Action includes geotechnical and –environmental pilot site investigations; design and planning of pilot structures on the basis of data from Action 2; and production of instructions for the implementation of pilot structures, quality control and follow-up activities (Action 5). The Action also includes brief field tests of the new equipment and of the handling of the OSA materials with conventional construction equipment.

The detailed description of the activities done so far is given in the annexed *Compilation report of technical, environmental and economical criteria for materials and applications and test procedures,* Annex 6.4.

Environmental screening report (in Estonian) has been compiled and will be submitted for approval to the environmental authorities in March 2011. *Environmental screening report* is given in Annex 6.5 (version 14 March 2011).

The plans for 2011 are described in the following table:

Indicators	**Planned deadline**	**Actual progress**
Deliverables		
Report of civil-engineering and environmental survey	28.02.2011	Actions have been started; environmental screening has been carried out. **Hereby we are asking for extension of deadline up to 31 May**
Written instruction for the implementation of pilot applications 2011	31.05.2011	Like planned
Written instructions for the quality control and follow-up of pilot applications	31.05.2011	Like planned
Milestones		
Start of the Applications Action	30.09.2010	Finished like planned
Civil-engineering and environmental survey finished and reporting started	30.11.2010	Actions have been started; environmental screening has been carried out. **Hereby we are asking for extension of deadline up to 31 May**
Planning, designing and production of instructions	31.05.2011	Like planned

for piloting 2011 finished on		

4.1.4 ACTION 4: PILOTING

Piloting Action is going to demonstrate the practical implementation of three types of civil-engineering applications with materials based on OSA: layer stabilisation of existing road base courses, mass stabilisation of peat e.g. for road and housing foundations, and road base based on mixtures of oil-shale mining waste and OSA. The pilots are implemented partly in the summer – autumn 2011 and partly during next summer – autumn 2012. All quality control activities are carried out as part of Action 5.

Piloting action will most probably start as planned in time schedule.

The plans for 2011 are described in the following table:

Indicators	**Planned deadline**	**Actual progress**
Deliverables		
N/A during this reporting period	-	-
Milestones		
Start of action	01.03.2011	Has been started
Final securing of the timetable, materials and equipment for pilot 2011	31.05.2011	Like planned
Piloting 2011 starts and is finished	15.12.2011	Like planned

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. Action 1 is going to provide the criteria for the verification of materials and pilot applications. Environmental permits for the pilots are also used as basis for the verification. The verification is carried out with help of quality control and follow-up activities to gather and document relevant data from the pilots of Action 4. Additionally, environmental life-cycle assessment (LCA) and life-cycle costing (LCC) procedures are carried out. The Verification and life-cycle assessment reports will be given for independent external experts for comments and evaluation.

Verification action will most probably start as planned in time schedule

The progress of the action in 2010 and plans for 2011 are described in the following table:

Indicators	Planned deadline	Actual progress
Deliverables		
N/A during this reporting period	-	-
Milestones		
Start of the Action	01.03.2011	Has been started
Environmental background values: start by sampling and finished with results	15.06.2011	Has been started and on-going
Plans and choices for LCA and LCC available	30.06.2011	Like planned

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. The dissemination tools include the project webpage, notice boards at piloting sites, DVD-presentation, Guidelines for the European practice, Layman's report and all other published articles, reports and conference papers about the project. The project participants present the project at relevant conferences and in road shows for specified target groups in Europe during and after the project period. An international workshop will be arranged in Estonia in 2013 or 2014. The project will also be presented in national and international professional magazines.

OSAMAT project has been introduced in Estonian newspaper "Põhjarannik" and in Estonian national broadcasting company.

The progress of the action in 2010 and plans for 2011 are described in the following table:

Indicators	Planned deadline	Actual progress
Deliverables		
Press release about the project and piloting	01.07.2011	Like planned
Milestones		
Start of the Action	01/09/2010	Has been started
Starting to create the Webpage	15/09/2010	Has been started
Webpage ready for use	31.10.2010	Has been created and ready to be used in 3 languages. Please visit www.osamat.ee, the webpage will be updated on regular bases
Manuscripts for the DVD start	31.10.2010	Planning has been started

Starting to prepare the slide presentations	15.01.2011	Has been started
Preparing of paper and poster for the conference in 2011 start	15.01.2011	On-going
Oil Shale Symposium in Estonia 2011	31.03.2011	N/A
Start arrangement of LIFE notice boards for pilots 2011 and 2012	30.04.2011	Like planned
1st version of slide presentations finished	30.04.2011	Like planned
Arrangements for Local event for piloting start	31.05.2011	Like planned
DVD production about the project, its methods and results start	30.06.2011	Like planned
Local event(s) at piloting site(s)	15.07.2011	Like planned

4.1.7 ACTION 7: MANAGEMENT

Management Action 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. The distinct activities of the Action include the official activity reports to the Commission, monitoring of the project, the audit of the financial statement and the After-Life communication plan as part of the final report. Monitoring measures and documents the effectiveness of the project actions as compared to the initial situation, the objectives and the expected results. The monitoring also evaluates the Carbon Footprint of the project.

The project manager of OSAMAT project is Mr Aleksander Pototski from Eesti Energia AS. 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. Monitoring activities are carried out according to project plan and other relevant documents.

The progress of the action in 2010 and plans for 2011 are described in the following table:

Indicator	**Planned deadline**	**Actual progress**
Deliverables		
Consortium agreement of the beneficiaries	1.09.2010	Agreement signing in process
Inception Report	15.12.2010	Deadline changed into 15th March 2011

Progress Report and Monitoring Report Nr 1	15.03.2011	Inception report contains the material and progress of period from September 2010 up to March 2011. Progress report nr 1 is planned to be submitted on 15.09.2011 instead of Progress report nr 2.
Progress Report Nr 2 with Carbon Footprint report Nr 1 and Monitoring Report Nr 2	15.09.2011	Is planned to be submitted on 15.03.2012 instead of Progress Report nr 3.
Milestones		
SG meeting (1); kick-off meeting	3.09.2010	Delayed but done in October 2010
Start to create the methodology for Carbon Footprint data gathering, calculations and benchmarking	15.09.2010	Started on time and on-going
Start to compile Inception Report	15.11.2010	Has been started
Start to compile Progress Report and Monitoring Report Nr 1	15.01.2011	Deadline for the Inception report was changed to 15.03.2011 and therefore progress report was cancelled for the same date.
SG meeting (2)	1.03.2011	Delayed, **hereby we are asking for extension of deadline up to 29 April.**
Start to compile Progress Report Nr 2, Carbon Footprint report Nr 1 and Monitoring Report Nr 2	15.07.2011	Like planned
SG meeting (3)	01.09.2011	Like planned

4.2 Availability of appropriate licences and authorisations

After selecting pilot sites in February 2011, for appropriate authorisations and permitting Estonian Road Administration in cooperation with Ramboll composed preliminary environmental assessment according to Environmental Impact Assessment and Environmental Management System Act § 6 section 3 to identify possible significant impact of planned action.

Preliminary environmental assessment will be coordinated with Estonian Environmental authorities in March 2011. Preliminary environmental assessment is part of road design procedures and is therefore important input to further procedures of construction permit.

4.3 Output indicators

We have revised output indicators presented in the application, we have corrected the calculation mistake in table 2 (*Main project deliverables*). Please see the tables in Annex 6.6.

4.4 Envisaged progress until next report.

A Gantt chart which illustrates OSAMAT project progress since 1.09.2010 until 14.03.2011 and planned actions from 15.03.2011 up to 14.09.2011 is given as Annex 6.7.

5 Financial part

5.1 Putting in place of the accounting system.

Eesti Energia AS and Nordecon Infra AS have taken into their accounting practice the principles stated in Common Provisions for LIFE+ projects. For example, the clear references to LIFE+ program project "OSAMAT" are always added in relevant invoices as well as into other Project financial documents, so that any of them could be easily tracked or found from archive.

The financial analysis for Project expenditures is performed by coordinating beneficiary – Eesti Energia, while associated beneficiary just submits the financial data periodically to EE.

The time-sheet accounting concept was applied fully in the EE and Nordecon Infra AS OSAMAT teams. The personnel time-sheets have been collected and been analyzed for man-hours and their costs (the costs are mentioned in table below). The full analysis/calculation is not included into this Report, but may be presented on demand.

5.2 Continued availability of co financing.

During the inception stage all the co-operating Project Parties have confirmed their interest and will in the implementation of the Project. Although the partnership agreement is not signed yet by all the Parties (the delay is caused by specializing negotiations with NC), the co-financing agreement by ERA was signed in the beginning of March 2011. So, the co-financing is expected to be full and well-timed. In general, understanding of the every Party's financial input in the Project is clear and steady from the very beginning until now.

5.3 Costs incurred.

Budget breakdown categories	Total cost in €	Costs incurred from the start date to 28.02.2011 in €	% of total costs
1. Personnel	864 500	8 361	0,97%
2. Travel and subsistence	20 500	500	2,44%
3. External assistance	474 000	47 000	9,92%
4. Durable goods			
Infrastructure			
Equipment	700 000	0	0,00%
Prototype			
5. Land purchase / long-term lease			
6. Consumables	363 500	0	0,00%
7. Other Costs	63 000	0	0,00%
8. Overheads	149 480	0	0,00%
TOTAL	**2 634 980**	**55 861**	**2,12%**

There were just several expenses taken place in the inception period. The table above is showing charges, required for the successful Project start.

- The largest payment in the row "External assistance" (47 000 €) was made to cover costs of external consultant company Rambøll, rendering assistance in preparatory phase and largely participating in the preparation of relevant applications, designing and further Project works.
- The lesser row – "Personnel" – is devoted to expenses occurred during the whole Project Inception period from September 2010 up to March 2011, including both administrative office work and Project meetings in Helsinki. One of the meetings was made to visit Life+ Projects' coordination session on the 14.01.2011, the second was devoted to the series of negotiations with partners (Rambøll Finland OY and Ramboll Eesti AS) on the topic of OSAMAT implementation.

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

Action number and name	Foreseen costs	Spent so far	Remaining	Projected final cost
Action 1 "PREPARATIONS"	38 000	35 361	2 639	38 000
Action 2 "MATERIALS"	132 875	-	132 875	132 875
Action 3 "APPLICATIONS"	868 475	20 000	848 475	868 475
Action 4 "PILOTING"	965 875	-	965 875	965 875
Action 5 "VERIFICATION"	185 175	-	185 175	185 175
Action 6 "DISSEMINATION"	142 300	-	142 300	142 300
Action 7 "MANAGEMENT"	152 800	500	152 300	152 800
TOTAL	2 485 500	55 861	2 429 639	2 485 500

6 Annexes

6.1 Memo of kick-off meeting (in Estonian)

6.2 Report of Preparation Action

6.3 OSAMAT applications and test methods

6.4 Compilation report of technical, environmental and economical criteria for materials and applications and test procedures

6.5 Environmental screening (in Estonian)

6.6 Output indicators

6.7 OSAMAT progress Gantt chart