

## Newsletter 6, February 2019

Project INSURE (“*Inovative Sustainable Remediation*”) is a 4-year Interreg Central Baltic project (September 2015 – August 2019), aimed on improvement of sustainable remediation of contaminated sites in project region, thus decreasing runoff of polluting substances into Baltic Sea. Valmiera City Council (Valmiera) is one of the 7 partners involved in project implementation. Project Lead Partner is County Administrative Board of Östergötland (CAB), other partners are Motala Municipality (MM), University of Helsinki (UHEL), Populus Group Oy (POP) (ended participation at the project on 31.08.2018), Latvian Environment, Geology and Meteorology Centre (LEGMC) and Vidzeme Planning Region (VPR). Now project is at the 6<sup>th</sup> implementation period (01.09.2018 - 28.02.2019).

### NEW PROJECT SITES IN FINLAND

Two new sites were introduced into the project INSURE in Midsummer 2018, Loppi and Karjaa, both located in Southern Finland. In Loppi, a small area contaminated with volatile oil hydrocarbons was treated by adding hydrogen peroxide in high concentrations into perforated injection tubes. Later on, the balance between different mechanisms of contaminant removal has been investigated in laboratory scale tests.



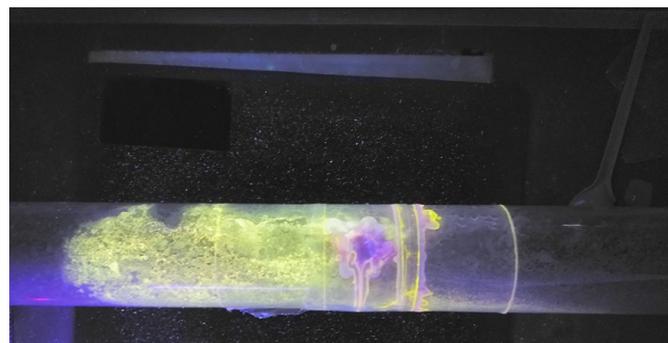
*Peroxide injections at site Loppi.*

Preparations for site Karjaa have been on-going

from summer 2018. Results from a small scale test for a biostimulation treatment utilizing a biodegradable soap, cyclodextrin are now being used to assess the risks involved with the treatment of the site, by utilizing a risk assessment tool, Soilirisk, developed by the Finnish Oil Pollution Fund.

### TESTING OF ELECTRO-KINETIC BIOSTIMULATION METHODS

Electro-kinetic biostimulation methods used at three separate INSURE-sites, Nastola, Motala and Valmiera, were studied by master and post graduate students at the Laboratory Course of Environmental Biotechnology held in November 2018 at UHEL Lahti premises. These additional tests were performed to further elaborate the effects generated at different sites.



*Movement of fluorescent dyed pore water and diesel oil followed in a laboratory scale model of the electro-osmotic treatment*

### VALMIERA SITE PROGRESS

The testing of electro-kinetic biostimulation method in Valmiera site was started in October 2018. *Vides konsultāciju birojs Ltd.* installed the pilot-test and security systems. The first soil and groundwater sampling was performed at the beginning of the testing period under supervision of Harri Talvenmäki, representative of UHEL. The samples were tested during the Laboratory Course of Environmental Biotechnology held at UHEL Lahti premises and by contractor *Vides konsultāciju birojs Ltd.* in Riga.

In January 2019 the Researcher of Helsinki University professor Martin Romantschuk was

taking part at the second soil sampling at Valmiera. The testing of the applicability and efficiency of the method will be finalized in April 2019 when the third soil sampling will be made and the soil samples will be tested. The results of all three samplings will be mutually compared and final report about results and method efficiency will be prepared.



*Soil sampling in Valmiera*

### MOTALA SITE PROGRESS

The **pilot tests** in Motala municipality has been completed in the middle of September. MM an UHEL was accompanied by Anders Andersson (property owner) and Erika Einarsson and Magnus Magnusson (consultants from Sweco). In this area the collaboration between municipality and property owner has been most favourably. In the picture you can see Anders helping us pulling up the 6 meters long ground water pipes. The results from the test shows that degradation has occurred but it has taken longer time than expected.

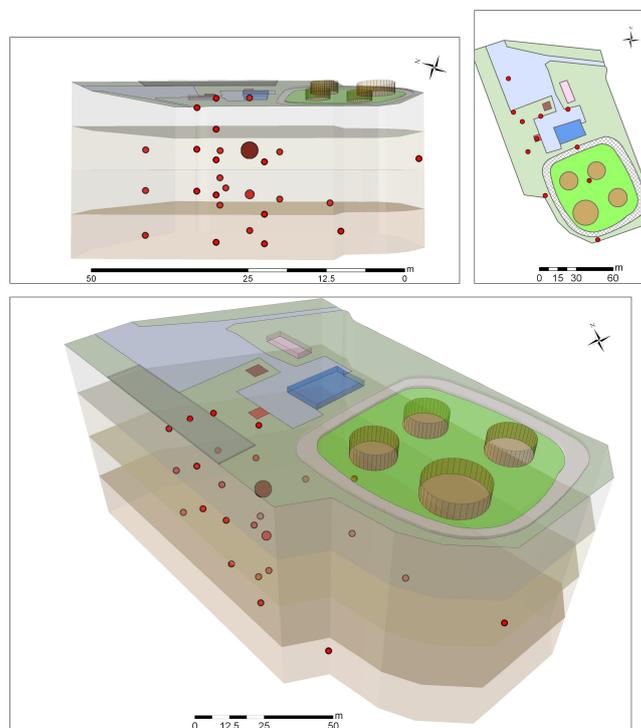
The work with the **remedial alternative selection, risk valuation and cost effectiveness analyses** is ongoing in Motala. The planner and environmental inspector is working closely with the consultants. We have had weekly meetings to make sure the work is progressing in the right way and to extract information from the municipality.



*Pilot tests in Motala*

### DEVELOPING A 3D GIS POLLUTION MODEL

LEGMC has started to develop 3D GIS pollution models (ArcGIS pro Basic 3D analyst) for Valmiera pilot site. The used data is from research what was done in INSURE project. Models could be done for each pollutant separately where sampling location and depth are taken into account. Example with benzene concentration.



*Soil pollution with benzene*

## VALMIERA INSURE MEETING

On 2<sup>nd</sup> – 4<sup>th</sup> of October the project partners meeting took place in Valmiera. Issues on project progress and following actions were discussed. Presentations on project sites and remediation methods were held. An application was presented that covers the polluted Swedish and Latvian areas.



*INSURE meeting in Valmiera, 2<sup>nd</sup> October, 2018*

By taking a bike ride project partners visited also the Valmiera remediation testing site in Dzelzcela street 9 and also the potential testing site of interest in Gaides street 11.



*Maija Rieksta (VPR) presenting the potential testing site in Gaides street 11, Valmiera*

**The workshop of GIS** was carried out in the management meeting in Valmiera. Carl Bergman from MM was one of the lecturer. He talked about how they used GIS to make 2D and 3D maps of the pilot site.



*Carl Bergman (MM) presenting the use of GIS in making 2D and 3D maps*

## FINDING SYNERGIES IN CROSS-BORDER COOPERATION PROJECTS: INSURE TEAM MEETS AT THE CENTRAL BALTIC ANNUAL EVENT

“Interregional cross-border cooperation needs to be strengthened as the synergies helps to achieve more and face regional development challenges,” was the idea shared among participants of the Central Baltic Programme Annual Event in Turku on the 14<sup>th</sup>–15<sup>th</sup> November 2018



*The INSURE team towards cleaner living environment with Central Baltic Programme: Region Östergötland, VPR, Valmiera and LVGMC representatives*

During the event, participants learned about the current state of the Programme and got ideas on how to bring forces together by joining project platforms, for example through using the KEEP.eu tool to collect and disseminate information.

The inspirational video greeting by Markku Markkula, Vice-President of the European Committee of the Regions (CoR), set the political framework of the event. He stated that the most important regional development issues to be addressed are targeted actions, entrepreneurial facilitation and more active cross-border cooperation. He named the "[Practical Handbook for Regional Authorities](#)", issued by European Commission, as a useful material for regional and municipal authorities regarding smart specializations, research and innovation, energy and transport, environment, multi-territorial dimension (region, urban, macro-regional strategies), as well as crisis management issues. The positive atmosphere facilitated networking among over 120 people including representatives of various Central Baltic projects, the Monitoring and Steering Committees from various institutions of the CB Programme countries, and other guests. It was strongly encouraged to share both good and bad experiences in project implementation as it helps to improve for better.

## **WORKSHOP ON STRATEGY ON GOVERNANCE OF POLLUTED AND POTENTIALLY POLLUTED AREAS**

On 22nd February 2019 VPR organised a workshop on strategy for management of polluted and potentially polluted sites. Municipal specialists on development, spatial planners, environmental specialists, and specialists of regional environmental boards were taking part. The importance of mutual cooperation between the owners of polluted sites, municipalities and the regional environmental boards were highlighted. Aim of the strategy is to offer governance recommendations to the historically potentially polluted or polluted property owners and administrators.

Participants of the workshop were introduced also to the prioritization tool for polluted and potentially polluted areas and representative from LEGMC informed about the developed data base and mobile app. The workshop was attended also by specialists from other regions of Latvia because this topic is crucial in whole Latvia.



*Workshop on strategy on governance of polluted and potentially polluted areas. Valmiera.*

## **FINAL CONFERENCE**

The four years long project INSURE is running to its end and the final conference is now in preparation. The focus of INSURE is sustainable remediation and it has included activities such as sustainable remediation at pilot areas and pilot tests, different management methods to create more efficient and increased remediation rate and development of technical tools such as GIS, models and databases.

Except of highlights of the project the final conference will have the theme of the Baltic Sea and new projects and methods for contaminated sediments. In addition to lectures some of the activities and the output of the project will be presented in an exhibition.

The date for the conference is **April 10<sup>th</sup> 2019** and it will take place in Norrköping at Arbetets museum (Museum of Work). For partners in the project there will be a management meeting 9th of April and a steering group meeting 11th of April at the Elite Grand Hotel in Norrköping.

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This newsletter was prepared by Valmiera

**VALMIERA**