

Re-use of surplus foundry sand by composting

LIFE13 ENV/FI/285

DURATION: 1/8/2014 - 30/9/2017



The aim of the LIFE Foundry sand project is to support the sustainable production and waste prevention and material recycling by studying how different foundry sand types can be cleaned by the innovative composting method.

FOUNDRY SAND

Objectives:

- To develop a new method for cleaning and re-using foundry waste sand through composting
- To keep contaminated foundry waste sands away from landfills and to use the recycled and cleaned soil material in geo-engineering applications
- To produce guides on practical level for foundries of surplus foundry sand quality control and cleaning the waste sand by composting
- Cleaned foundry sand compost material should meet the national requirements to be used for geo-engineering applications
- To improve acceptance of this valuable material for geo-engineering use
- Innovative biological method will be tested in Finland and Spain. Aim is to study the effect of climate. Also winter time test field trials will be carried out in Finland.

Actions:

- Different foundry sand types will be tested (furan, phenol and green sand)
- About 15 small scale test field trials will be carried out in Finland and 10 tests in Spain in 2015-2017
- Additionally compost test trials will be carried out on laboratory scale

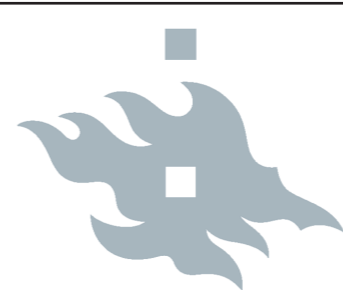
Expected results:

- Hazardous organic compounds (like phenols, PAHs) are to be cleaned with the efficiency of over 95 %
- Air emissions, odours and effluents from test heaps will be defined and based on the results the total impacts to environment will be evaluated
- Manual for surplus foundry sand handling and quality control will be produced
- National requirements of using the cleaned foundry sand in e.g. geo-engineering applications will be clarified (Finland, Spain and Germany)

Partners:



AX-LVI Consulting Ltd, Finland



UNIVERSITY OF HELSINKI

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TECNALIA Research & Innovation, Spain



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