

## Project financing

**Realization of the Project was enabled by the support of the LIFE + financial instrument and the NFEP&WM resources.**



### Financial Instrument LIFE +

LIFE + is the only financial instrument of the European Union focused exclusively on co-financing projects in the field of environmental protection. Its main objective is to support the implementation of EU's environmental law, implementation of environmental policy and identification and promotion of new solutions to environmental problems.



### NFEP&WM

The National Fund of Environmental Protection and Water Management (NFEP&WM) in cooperation with the Provincial Funds is a pillar of the Polish system of environmental financing. NFEP&WM co-finances DIM-WASTE Project's realization.



### IMBiGS

Institute of Mechanised Construction and Rock Mining (IMBiGS) is an interdisciplinary, scientific research unit. The Institute conducts research, development and experimental activities within the framework of an implementation of mechanization and automation into the industry, construction, rock mining and waste management. IMBiGS disseminate and implement new technological, technical and organizational solutions into business practice.



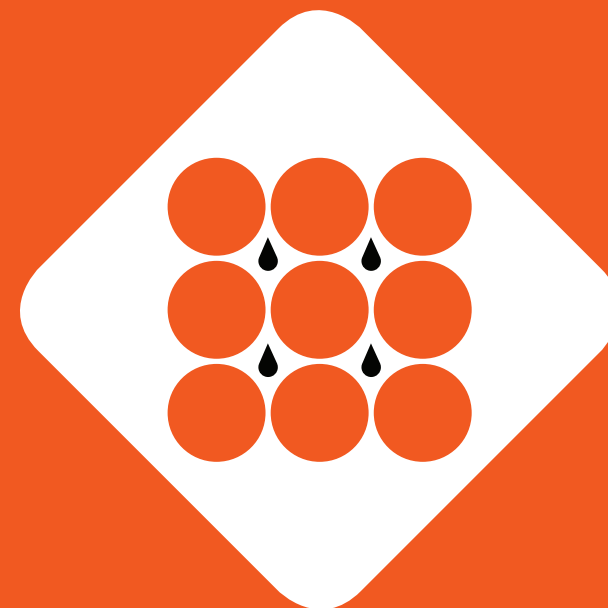
Detail information on:  
[www.dim-waste.eu](http://www.dim-waste.eu)

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# DIM-WASTE

Demonstration installation for manufacture  
of lightweight aggregate from sewage  
sludge and waste silica



Sewage sludge are created in treatment plant as the final waste in the process of sewage treatment.

Sewage sludge is an important waste in terms of its quality proportion of waste generated in the area of municipal and industrial, because it creates a serious hazard to the environment and its disposal is a burden for the economy. The specific composition of sewage sludge results in its management despite having valuable properties such as fertilizer ingredients, it also contains harmful impurities that cause potential health risks to the environment and human health.

The amount of sewage sludge is increasing very rapidly, and forms another group of waste, for which the problem of disposal calls for solutions.

In previous years, the predominant direction of the management of municipal sewage sludge was their storage. From the standpoint of obligations arising from the introduction of European law is a highly unfavorable. Community law requires the restructuring of sewage sludge management, including the resignation from storage, and turning to thermal disposal.

It is planned that in 2018 in Poland the percentage of thermal disposal of sewage will increase to 59% (in 2011 it was about 35%). To be able to achieve this status, it is necessary to develop technologies of thermal processing of sewage sludge.

The main objective of the Project is to demonstrate innovative waste management technologies for selected groups of waste, including sewage sludge, to produce lightweight aggregate. Developed at the Institute of Mechanized Construction and Rock Mining a new method of sludge disposal is based on the assumption of using only a variety of waste and neutralizing it in one process to produce a commercial product i.e. construction product – an artificial lightweight aggregate for a widespread economic usage. The process of obtaining a new type of lightweight aggregates involves performing the thermal synthesis of at least three different waste materials, including sewage sludge as the main component.



Lightweight aggregate production technology using sewage sludge is safe, Energy efficient, environmentally friendly and cost-effective method for utilization of sewage sludge. Additionally, it provides an attractive building product exclusively from waste materials.

The main objective of the Project is to demonstrate innovative waste management of sewage sludge along with silica waste in the process of production of artificial lightweight aggregate

The strategic objectives of the Project are:

**Construction of a prototype demoline for production of lightweight aggregate from sewage sludge**

**Performance of coherent information campaign on the developed technology and the Project itself**

Realization of the Project will allow checking the technology developed by the Institute on industrial scale, and will contribute to rise of public awareness about the problem of managing sewage sludge.

Long-term impact of the Project will contribute to reducing the negative effect of sewage sludge on the environment.