

Polygeneration of energy, fuels and fertilizers from biomass residues and sewage sludge



Duration: 2008 – 2014

Funding: European Commission's 7th Framework Programme (2007-2013)

Lead partner: Institute for Applied Material Flow Management (IfaS) (Germany)

Partners: KTU APINI (Lithuania), Soil-Concept S.A. (Luxembourg), LEE (Luxembourg), Bisanz Anlagenbau GmbH (Germany), BIOS Bioenergiesysteme GmbH (Austria), KLF (Kuhbier Law Firm) (Belgium), B.A.U.M. Consult GmbH (Germany).

Coordinator at APINI: Dr. Irina Kliopova

Description: The aim of the project is to demonstrate high-efficient polygeneration of electricity, heat, solid fuels, and high-value compost/ fertilizers from sewage sludge and greenery waste mixed with biomass residues. The project concept allows achieving high overall energy efficiency by (1) mixing sewage sludge with greenery waste and biomass residues and using low-temperature environmental heat, and heat from the composting process for drying sewage sludge; (2) highly efficient gasification process; (3) saving transport energy due to a netter overall material flow management inherent to the concept.

Link: <http://www.enercom-project.info>

PROJECT RESULTS

- ✓ Main results of KTU APINI activities ([link](#))
- ✓ [ENERCOM flow chart](#)
- ✓ [ENERCOM flyer](#)



Publications:

- Kliopova, I., Makarskienė, K. (2012). Generation of Solid Recovered Fuel from Sewage Sludge Compost. [*Environmental Research, Engineering and Management*, 62, 39-52.](#)
- Kliopova, I., Makarskienė, K. (2013). Generation of Solid Recovered Fuel from the Separate Fraction of Pre-composted Materials (Sewage Sludge and Biomass Residues). [*Environmental Research, Engineering and Management*, 64, 5-18.](#)
- Kliopova, I., Makarskienė, K. (2014). Improving material and energy recovery from the sewage sludge and biomass residues. [*Waste Management*.](#)

News:

- 11th National Annual Debating Forum “Waste Management 2014” ([2014-10-01](#))
- Renewed website of project ENERCOM ([2013-11-19](#))
- APINI employees presented research results in ISWA World Congress Vienna 2013 ([2013-10-14](#))