

University of Stuttgart
Germany

Institute for Sanitary Engineering, Water
Quality and Solid Waste Management



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**FlashPhos – The complete
thermochemical recycling of
sewage sludge**

PERM4 -
4th Phosphorus in Europe Research Meeting

June 2nd, 2021
Online



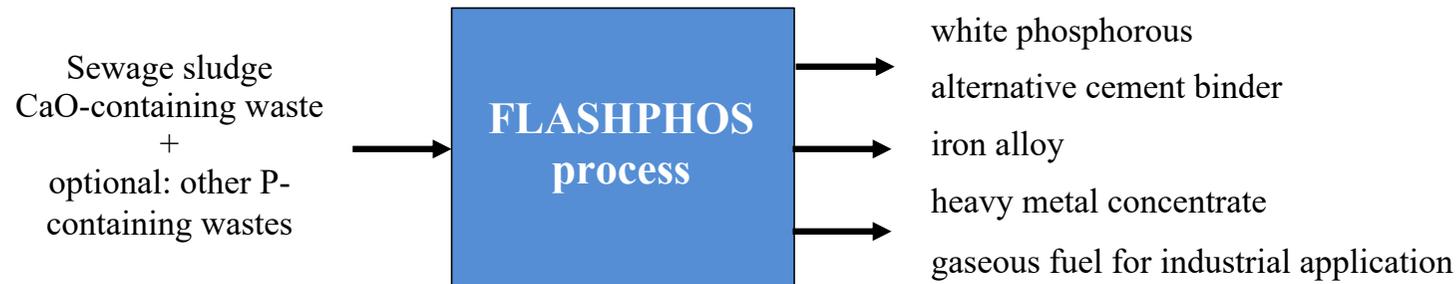
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 958267.





FlashPhos – the complete thermochemical recycling of sewage sludge

the project



- Development and demonstration of the entire process chain from de-watered sewage sludge to only marketable products → Real “Zero Waste” process
- Core processes: Drying-grinding, high-temperature Flash gasification to produce P_4 (Critical Raw Material) and climate friendly cement
- Further project tasks:
 - Integration of FlashPhos into cement production process (FlashPhos host)
 - Integration into European sludge, waste and phosphorus markets
 - Assessment of ecological and socio-economic impacts already considered in the development
- Expected impacts:
 - Growing independence of the EU from unreliable P_4 supply by circular economy
 - Significant CO_2 savings from P_4 and cement production industries
 - Sludge disposal and P-recovery solution in one for all EU countries





Universität Stuttgart

FlashPhos – the complete recycling of sewage sludge the consortium



University of Stuttgart
Germany

University of Stuttgart (DE)
(coordinator)



Herp Giessereitechnik GmbH (DE)



Italmatch Chemicals S.p.A. (IT)



Unitherm Cemcon Feuerungs-
anlagen GmbH (AT)

aufbereitung / recycling / prüftechnik



ARP Aufbereitung, Recycling
und Prüftechnik GesmbH (AT)



Inside
Excellence

Buss-SMS-Canzler GmbH (DE)



A TEC Production and
Services GmbH (AT)



Goriup Feuerfest GmbH (AT)



Inerco Ingeniería, Tecnología
y Consultoría SA (ES)



ResourceFull (BE)



Technical University of Graz (AT)



M.I.T.
Metallurgy &
Inorganic Technology

MIT - Metallurgy & Inorganic
Technology (AT)



InsPyro NV (BE)



Boehler Abfall GmbH (AT)



VDZ gGmbH, subsidiary of VDZ –
Verein deutscher Zementwerke e.V. (DE)



Steinbeis Innovation gGmbH (DE)



Dyckerhoff GmbH, subsidiary of
Buzzi Unicem S.p.A.(DE / IT)

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