

## Benefits of Using Sewage Sludge in Cement Production



Sewage sludge is a waste coming from the sewage treatment of industrial or municipal wastewater.

1990 emissions
783
kg CO<sub>2</sub>/t of cement

2050 emissions

0
kg CO<sub>2</sub>/t of cement
down the value chain

The contaminants of sewage sludge (microplastics, PFAS, chemicals etc) require high temperatures for destruction.

Sewage sludge also contains a significant concentration of phosphorus, which is a critical raw material and its recycling is very important.

Why does the cement industry offer the best waste management solution for sewage sludge?



- ✓ Optimal recycling of energy and mineral content embedded in the sludge
- ✓ Protection of the environment as the contaminants are destroyed completely and there are no leftovers
  - ✓ Contribution in avoiding public investment costs in new dedicated incineration facilities
    - ✓ Reduced carbon footprint
- ✓ Decreased reliance on imported energy, as it allows for the phase out of fossil fuels

## Why is the use of sewage sludge important for the cement industry?

- Sewage sludge is a biogenic material with carbon neutral footprint.
- ✓ It is a source of alternative fuel, used in cement production.

2030

Use of alternative fuels is key for the sector to achieve <u>carbon</u> neutrality by 2050.

In 2020, 460.000 tonnes of CO2 were saved thanks to the use of 400.000 tonnes of dried sewage sludge

2050

Within the EU, we aim to reach 60% alternative fuels by 2030 and 90% by 2050. Equivalent to 460.000 hot air balloons of 500m<sup>3</sup>

Phosphorus is a source that feeds the world, therefore its recycling is crucial.

"Dephosphorisation" of the sewage sludge at the wastewater treatment plant is a must to secure the phosphorus as a resource and continue using the existing capacities of co-processing in cement kilns.

