

Contact point for this idea: Vilma Ducman; Slovenian National Building and Civil Engineering Institute –ZAG; vilma.ducman@zag.si

## Waste valorisation for clay based sector - **WAVE**

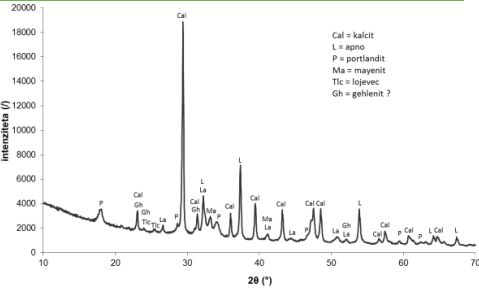
- Idea: **Various waste materials** are available in processing sector and present burden to the environment but **could be usefully applied in the clay brick sector** as a replacement of virgin clay, additive for lowering of firing temperature, pore-forming agents or fillers.

Additional benefit: some **harmful components can be immobilized** into the ceramic structure.

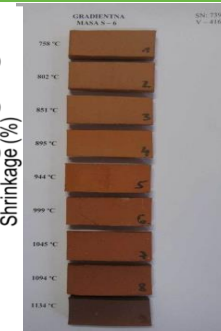
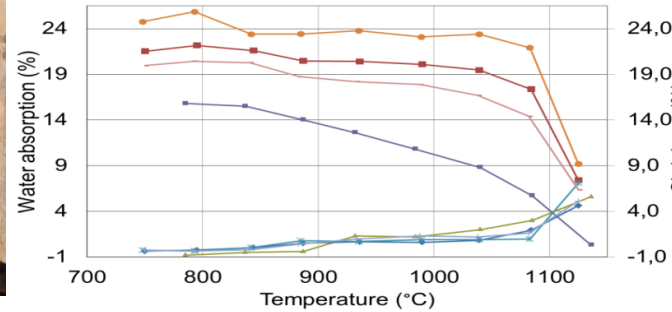
- Expected synergies and complementarities: **waste for one company can be raw material for another** (no taxes for landfilling, saving in virgin material, lower CO<sub>2</sub> footprint)
- Outcomes: **map of available waste in ESEE region with the assessment of suitability for clay based sector** (clay bricks, block, roofing tile, aggregate), **network of stakeholders**
- Market & Business opportunities: construction and building sector
- Partners already identified: ZAG (Slovenia) , Ss Cyril and Methodius University (Macedonia FYRM), University of Osijek (Croatia), Producers of clay bricks –Goriške opekarne (Slovenia) and Nova sloga (Macedonia), Port of Koper (Slovenia),
- Wanted additional partners : waste holders (slags, ashes, sludges, silts,...), producers of clay based products, partner for testing of potentially harmful substances (leaching of heavy metals)

# WAVE - Waste valorisation for clay based sector

Analysis of waste:  
XRF, XRD, particle size



## LAB SCALE ceramic - technological tests



MAP of available and suitable waste, **NETWORK** of stakeholders



UP-SCALING into :bricks, tiles, aggregates...