



# European Project Semester

## PROJECT OUTLINE

**Project dates:** March – June 2023

**Title:**

New Paste Material for Extrusion 3D Printing

**Project activity areas:**

*Additive manufacturing of low-tech systems, Research & Developments, Product testings*

**Keywords:**

*3D printing, additive manufacturing, low-tech equipment, Product testings*

**Tutor's name and coordinates**

Client – End-user: *Infuse Design*  
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**Project origin**

*Research, Innovation, Up-cycling, Circular Economy, Environment protection, Ceramics, biomaterial*

**Project technical background:**

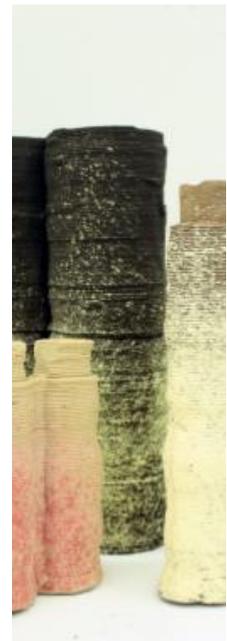


*Infuse design* is a start-up working on low-tech equipment such as “desert fridge” (clay cooling device using evaporation phenomenon) or “oyas” (watering device that uses the porosity of clay to dispense water underground).

Infuse design is now seeking for new material and new challenges. Thus, this project consists in developing new materials. Sky shall be the limit in terms of possible solution but these newly developed materials shall be:

- made from renewable sources, preferably agricultural waste or
- made from recycled material
- processed by extrusion to fit Infusion design process solutions

The newly designed material will be characterised in order to draw the line of technical data sheet.



**Studied topics:**

- Material engineering
- Material characterisation
- Biomaterials
- 3D printing