Consortium

Instituto de Tecnología Cerámica (ITC-AICE)

ITC-AICE (coordinator) will support the design of the separation process, characteÅ rize the ceramic inkjet ink wastes, evaluate the project impacts, and establish the replicability and transferability strategy.

www.itc.uji.es

Akcoat Recubrimientos Quimicos Especializados S.L.U (AKCOAT)

AKCOAT will validate the new ceramic inkjet ink and pigment formulations at pre- and industrial scale.

www.akcoat.com/megacolor

Centro de Tratamiento de Residuos del Mediterráneo S.L. (CTR)

CTR will gather all relevant information on inkjet ink wastes and operate and validate the prototype for waste treatment and separation.

www.ctrmediterraneo.com/

Keros Cerámica S.L. (Keros)

KEROS will validate the new ceramic tiles formulations at pre- and industrial scale and support the replication activities.

www.keros.com

Neptury Technologies, S.L. (Neptury)

NEPTURY will build and design the separation prototype and support the replicability of the outcomes obtained as well as their transferability to non-ceramic sectors.

www.neptury.com

Techlam Levantina, SL. (Techlam)

TECHLAM will validate the new ceramic tiles formulations at pre- and industrial scale and support the replication activities.

www.levantina.com/es/producto/techlam/

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https://lifereplay.eu

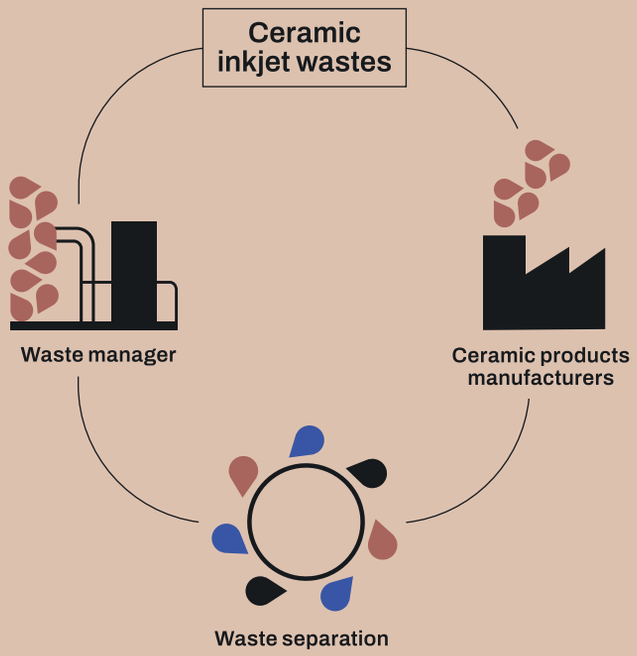
The LIFE REPLAY project has received funding from the LIFE Programme of the European Union (reference: LIFE20/ENV/ES/000115)

LIFE REPLAY

A new concept to reuse waste from the ceramic industry

LIFE REPLAY proposes a **novel circular value chain for inkjet ink wastes** by introducing a new concept to reuse waste from the ceramic industry.

The main goal of the project is to demonstrate the technical feasibility of **using ceramic inkjet ink wastes as a new raw material for the ceramic industry**, prior separation of those, resulting in a solid component based on heavy-metal inorganic pigment and in a liquid component based on an organic solvent. Both separated components will be used in the fabrication of ceramic pigments, inks, and tiles.



Main objectives

- To demonstrate in real environment the **valorisation of inkjet ink wastes in ceramic products**.
- To implement a **value chain pilot based on circular economy** pillars through industrial symbiosis.
- To develop a **prototype for a simple and low-cost separation of the ceramic inkjet ink wastes**.
- To deploy a **new business model for the transformation of the inkjet ink wastes** in a new resource for the ceramic industry.
- To **assess the environmental impact** of the solution.
- To **replicate the innovative valorisation scheme** in other ceramic companies and to transfer it to other sectors.

Expected results

- Fabrication of 10.000 m2 of “eco” ceramic tiles, substituting:
  - 30-40 % of the current organic solvent used in traditional decoration by the new organic effluent;
  - 100 % of the current inorganic pigment used in coloured ceramic body, glaze or traditional decorative compositions by the heavy metal-based solids component.
- Production of 80 tons of “eco” ceramic inkjet inks, where 15-25% of the current inorganic pigment and 100% of organic solvent will be replaced by the separated components.
- Manufacturing of 30 tons of “eco” pigment replacing 25-40% of the current inorganic pigment used will be replaced by the treated solid component

LIFE REPLAY will **treat and valorise 100 tons of ceramic inkjet ink wastes**: