

# APCR

## PHASE 2

Study for recovery APCR (air pollution control residues) for its use in the formulation of mortars and concretes

### The Challenge

In a first phase of the project, it was possible to determine the viability in the separation of the main fractions present in the APC residues, generated in **energy recovery** plants from municipal waste, as well as the reduction of their contamination, in order to promote their recovery, instead of landfilling. It was necessary to continue the research to determine the needed conditioning for its application in the construction industry, as well as to study the effects of its direct application in the replacement of cement and aggregates.

### The Solution

**Tradebe** (LUNAGUA) has worked in achieving a viable alternative for the **management, recovery and disposal of APC residues**, by obtaining a product of interest in the construction industry, which could act as an aggregate for construction applications and /or as a substitute of Portland cement.

The main objective of this industrial research project has been to carry out a study on a laboratory scale, aimed at evaluating the potential use of the APCR ash as partially replacement of Portland cement, or aggregates, in the formulation of non-structural mortars and/or concretes.

### Benefits

The industrial implantation of this solution would mean a **significant improvement** in the current management of APCR from an environmental point of view, since it would convert a waste into a resource and would reduce the disposal of a significant volume of waste. It will also represent a reduction in greenhouse gases emissions, because of the reduction in the exploitation of natural resources in the obtention of Portland cement.

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**Cost:** 264.154,79 €

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**Crew members:** Sergio Becerril, Jesús Curto, Lucia Achurra and Visitación San Martín.

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It is hereby reported in compliance with the guidelines of the INNOVA Grant Program for the year 2022 - Ministry of Innovation, Industry, Transport, and Commerce, Government of Cantabria, Order IND/14/2022, of March 18, and Section 6 of Article 28 of Law 1/2018, of March 21, on Transparency of Activities, that none of the administrators of LUNAGUA, S.L.U. receives any remuneration for the performance of their duties."