PARTNERS

www.alsical.eu

/alsical-project

alsical@pnoconsultants.com

/alsical_project

AlSiCal

Towards sustainable mineral and metal industry: ZERO Bauxite Residue and ZERO CO_2 from co-production of Alumina, Silica and precipitated Calcium carbonate by the Aranda-Mastin technology

AlSiCal is an ambitious research and innovation project to make the mineral and metal industry more sustainable and environmentally sound. The core of the project is the already patented and ground-breaking Aranda-Mastin technology, which enables the sustainable production of alumina, silica and precipitated calcium carbonate by using currently unexploited resources whilst generating ZERO Bauxite Residue and ZERO carbon dioxide (CO_2) from production.

These are high-demand raw materials with expected demand growth worldwide. Securing domestic access to these basic raw materials is of high priority for the European Union. Currently they are obtained through traditional processes that generate considerable CO_2 emissions, and bauxite residue in the case of alumina, clashing with an increased demand for more sustainable production.

AlSiCal will contribute to reach the European Union´s goals by further researching, developing and de-risking the Aranda-Mastin technology, which will allow for:

- The green co-production of the three essential raw materials, in a single process and from one source;
- The efficient use of anorthosite, a mineral abundant in Europe and worldwide;
- Integrated CO_2 use and capture to achieve ZERO CO_2 emissions from production;
- ZERO Bauxite Residue generation from alumina production.

In four years AlSiCal aims to develop this European innovative technology, which enables domestic access to high-demand raw materials under sustainability principles, contributing to the European economic growth through low carbon and low environmental footprint technologies.