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Main product: Flexible energy input for kaolin calcination

Aim: To improve kaolin calcination control and reduce its carbon footprint, while adding more flexibility to the process



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Sustainable kaolin transformation

The project

The idea

Calcined kaolin is an essential industrial mineral used, for example, as a component in paints, coatings, inks, etc. We developed a combined process of calcination and gasification for its production, involving innovative algorithms through mine and lab data. This enables us to dramatically decrease the overall carbon footprint of the operation.

We benefited from the EIT's support from day one. Nothing would have been possible without them.

Inspiration

As actors in the mineral processing industry, it is our duty to ensure resources are used and transformed as sustainably as possible.

Unique selling points

Our long-standing experience in calcination and gasification provides us with lots of valuable data that we can rely on to come up with such production plants.

Societal impact

As its use widens, this process will contribute to curbing the kaolin industry's environmental footprint.



Supported by:



Generated funding:
EUR 1 600 000



Challenge:
Sustainable mineral transformation



Partners:
Outotec Oyj, Outotec GmbH&Co. KG, Imerys, Predict, Aalto University, TU Delft, University of Exeter

EIT Community support

The EIT enhanced our project exposure exponentially, namely through advertising us across the field and facilitating networking with key stakeholders.

The nominee

The beginning

I have always believed in striving for more sustainability in the minerals industry. This project was the perfect opportunity to make it real!

Partnerships & Teamwork

Predict looked at data and algorithms integration while TU Delft assessed the online product quality. Aalto University refined the calciner control and Outotec analysed the diversified energy input and its influence on design and operation. The University of Exeter optimised the calciner internals and Imerys carried out the production site demonstration.

Rewarding moments

I'll always remember when we gathered all signatures in the project agreement and when we finally demonstrated that our solution works.

