

## VALIDATED FUEL EFFICIENCY

€1 000 000  
PER YEAR  
OF RECURRENT  
SAVINGS

**SITUATION** A large cement company located in Belgium produces 1.2 million tonnes of Portland cement a year for the international market. The 60-year-old plant consumes a variety of different materials to fuel its production line's multi-step heating process.

The cost of energy plays a large role in the bottom line for the plant – and the properties, efficiency, and availability of the fuels can differ widely. The plant's decision-makers realized there were potential savings in their energy consumption. They were already preheating the limestone and clay to increase calcination and prepare it for the kiln. To make an informed decision, the company needed to know more as to what to burn at what stage in the process and have the statistics to back it up.

**SOLUTION** PEPITe took on the project and analyzed the company's historical data. The efficiency of the pre-calcification and kiln was calculated and the variability of its energy performance was evaluated. The results were so surprising that the company requested PEPITe confirm their detailed analysis. The data consistently identified the same results: 1 million euros in potential savings for energy consumption and operating costs. To realize this compelling saving, PEPITe was engaged to:

1. Identify the appropriate fuel to burn in real-time for the pre-calcification and kiln process.
2. Find the root causes of variations to detect drifts as they happen and mitigate them.
3. Implement the right decision tools for the entire organization, from operator to plant manager.
4. Develop a continuous improvement group within the plant to assure long term success.

### **BENEFITS**

- 1 million euros in annual savings by using a better fuel mix in the pre-calcification stage and kiln
- Improved problem solving based on facts
- Reduced risk of loss by detecting drifts early
- Involved plant personnel who can take ownership of the results committed