



OPTIMIZED STEAM EXTRACTION PROCESS

€ 500 000
PER YEAR
OF RECURRENT
SAVINGS

SITUATION For over a century Prayon has been a world leader in phosphate salts production, dominating the food, technology and horticulture markets. The phosphate production process requires a lot of energy and generates big energy bills. In 2010, their main plant in Engis, Belgium added a sulfine exothermic unit and was able to reduce its dependency on external sources of both gas and electricity, eliminate oil use completely, and reduce its ecological footprint by cutting CO₂ emissions. But, they still did not meet their targets. Prayon contacted PEPiTe to close the remaining gap and help them achieve optimized energy efficiency.

SOLUTION PEPiTe used its data mining expertise to reveal a gap in energy efficiency of more than 100 000 tonnes of steam a year. The root causes were identified and a people minded approach was introduced. Communication across 20 teams was strengthened, spanning three departments: management, energy and operations. Visual real-time tools were developed to monitor extraction flow and equipment maintenance, and new reporting practices were created to link departments. The winning formula was:

1. Analyze the existing situation and identify optimized running conditions.
2. Develop key indicators and operator control systems.
3. Training and follow-up.

In a period of six months, Engis saved over € 250 000 on energy.

BENEFITS

- Increased steam extraction averaging 5 tonnes/hour
- Recurrent savings of € 500 000 per year on energy
- Long term approach with a commitment to sustainability
- Improved internal communications and workflow
- No capital expenditure
- Implemented in less than 3 months