



CASE STUDY WATER

Capital Preserved – Avoiding €2M in Unnecessary Expenditure

The Challenge

At a major European pharmaceutical manufacturing site, the arrival of summer triggered significant operational anxiety. The chilled water system, vital for maintaining strict temperature and humidity in production areas, appeared to be reaching its absolute limit. Faced with the risk of production non-conformity and the potential loss of entire batches, the site team prepared to invest in new chiller systems. This was the default answer: a multi-million-euro capital investment driven by a need for reassurance during the budget cycle.

The Strategic Intervention

Projective challenged the prevailing assumption that the system was "maxed out". Led by Caterina Saracino, the team proposed that by pre-treating the fresh air going into the system, they could both reduce demand and increase efficiency, and the site could potentially avoid the purchase of an expensive new chiller. The core of the strategy was to shift from a focus on the capacity the site had to the capacity they actually needed.

Hidden Tension: A Conflict Between Data and Belief

The Prevailing Assumption **The Unsettling Doubts**

The system is at its limit. We must invest in new chillers to guarantee capacity and mitigate production risk.

This was the default answer, driven by a desire for reassurance and the looming pressure of a capital budget cycle.

Fluctuating loads, conflicting data from different site areas, and subtle inefficiencies suggested a different story.

"Was chiller capacity truly maxed out, or were inefficiencies hiding in plain sight? Uncertainty clouded decision-making, especially with capital approvals on the line."



The Solution: Building Technical Trust

To validate this, Projective conducted a deep-dive investigation through:



System Mapping

A full energy and mass balance of the chilled water production and user system.



SME Workshops

Collaborative sessions with the site's HVAC team to challenge historical assumptions.



Third-party Integration

Resolving data conflicts between system readouts and operator accounts.

This collaborative approach helped Projective to uncover another solution hiding in plain sight: a 'no-cost' set-point change in the control logic could immediately boost the efficiency of existing chillers.

The Impact

The results were transformative. By reengineering the control logic and demonstrating verified modelling results, the site team implemented changes the very next day. Positive system changes were noticed immediately.

€2,000,000

Avoided Capital Expenditure: The primary goal of cancelling the new chiller purchase was achieved.

Operational Resilience

The site now has a foundation of data-driven insight, ensuring future capital is allocated only to genuine needs.

Enhanced Confidence

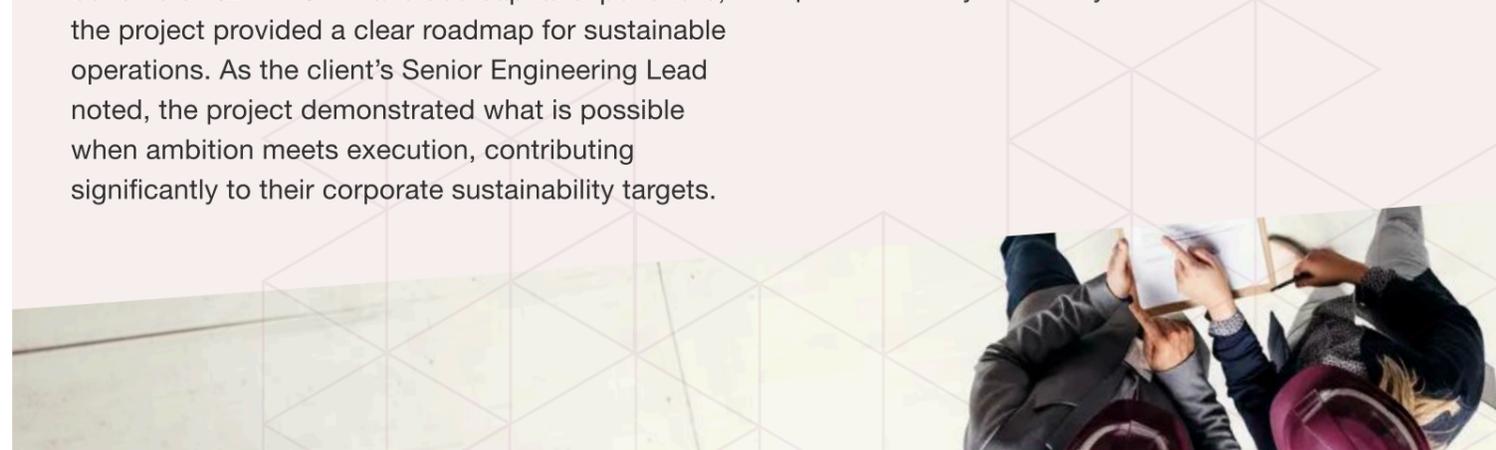
The fear of summer process failure was replaced with the assurance of predictable cooling.

Beyond the Numbers

The site team was "showered with kudos" for these achievements. Beyond the immediate financial benefits of €2 million in avoided capital expenditure, the project provided a clear roadmap for sustainable operations. As the client's Senior Engineering Lead noted, the project demonstrated what is possible when ambition meets execution, contributing significantly to their corporate sustainability targets.

The Projective Principle

Sometimes, the best engineering outcome isn't a new system at all, but the confidence to trust and optimise what you already have.



Let's Uncover the Hidden Value in Your Systems

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