

AI-SIMULATION TWINS FOR ASSET INVESTMENT PLANNING

MANUFACTURING / ENERGY & UTILITIES

Asset-heavy and process-intensive industries are swamped with an avalanche of decisions they must make that can significantly impact long-term revenue and costs, thus leaving little room for error in asset investment and risk management strategies. The AI-Simulation platform allows organizations to test and understand the impact of decisions in order to create asset management strategies giving the optimal trade-off between their objectives and operational constraints.

KEY RESULTS

-10 %

Total expenditure -12%

Operational Conflicts



Time spent on investment planning

SIMULATION DRIVEN SOLUTIONS



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Understand the future evolution of your business environment and assess risk profiles accordingly.

Switch from a pure accounting asset lifespan to an investment strategy that minimizes TOTEX and maximizes asset revenues.

Ensure consensus regarding asset replacement between maintenance, production and finance departments and align corporate strategies with individual site needs.

Decrease downtime cost and optimize CAPEX allocation.



RTE, Nexans, Tennet & Groupe E Transforming businesses with Simulation Digital Twins

Aging assets, financial and performance objectives along with regulatory and competitive environments present numerous challenges for asset-intensive industries: technologies becoming obsolete, the inability to source replacement parts, constrained CAPEX, limited possibility to accurately test capital investment plans and justify required resources...

For our manufacturing and energy customers, that means developing robust CAPEX/OPEX investment plans and find the right asset management trade-offs between investment levels and failure risk management.

By developing a dynamic model of their entire operational system, including assets of all ages as well as multiple organizational and operational constraints, our customers were able to test and validate the robustness of various asset management strategies. This allowed them to further implement optimal risk mitigation strategies considering the company's core KPIs, justify investment plans and facilitate cross-functional decision-making.



Simulate sustainment plan Simulate the full asset management plan including every type of intervention.



Simulate the physical asset lifecycle Simulate the effect of time, physical degradation, loss of structural integrity and occurrence of defects or failures



Simulate the financial asset lifecycle Forecast asset conditions, simulate asset financial depreciation and compute associated capital costs.

50-80% CAPEX AVOIDANCE

The results are more than convincing. The Cosmo Tech simulation technology helped us to optimize our asset management strategy in Europe. We were able to identify clear levers to lower risk and generate savings over 5 years of 50 to 80% depending on the year.

Expert Leader - Car Manufacturing Industrial System 4.0.



Microsoft



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