



A leading consumer electronics producer reduced production costs by 20% and improved efficiency through **digital twin technology**

Background

A leading producer of consumer electronics, sought to enhance their production processes to keep up with increasing demand and maintain high-quality standards. The company identified inefficiencies in their manufacturing workflow, which led to increased production costs and longer lead times.

Objectives

- ◆ **Streamline Operations:** Automate and digitize processes to reduce delays and errors.
- ◆ **Reduce Costs:** Minimize waste and optimize energy usage.
- ◆ **Shorten Lead Times:** Improve scheduling and resource allocation.
- ◆ **Enhance Quality:** Ensure consistent quality through better process control.

Benefits

Increased Efficiency: Streamlined processes and improved coordination across departments.
Cost Savings: Achieved a 20% reduction in production costs through waste minimization and energy optimization.

Challenge

- ◆ **Inefficient Workflow:** Manual processes and siloed data systems caused delays and errors.
- ◆ **High Production Costs:** Inefficiencies led to increased waste and energy consumption.
- ◆ **Long Lead Times:** Suboptimal scheduling and resource allocation extended delivery times.
- ◆ **Quality Control Issues:** Inconsistent product quality due to variability in processes.

Approach

- ◆ Implemented IoT sensors and PLCs to gather real-time data from machines and processes.
- ◆ Developed digital twins of critical processes to simulate and test changes before implementation.
- ◆ Used simulations to identify bottlenecks and optimize process parameters.

About Straive

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