

Empowering machines with intelligence

Maxeon stays ahead with smart manufacturing



Overview

Maxeon delivers a greener future—at lower cost—with Infor

With over 30 years of experience, Maxeon is a global leader in solar innovation and sustainability, delivering highly efficient and reliable solar technology for residential, commercial, and power plant customers. In 2016, it provided the technology that powered zero-fuel airplane Solar Impulse 2 on its record-breaking flight around the world, cementing its position as a leading and innovating supplier of solar PV modules.

Challenge



Maxeon had to stay competitive, compliant, and innovative in the face of falling PV module prices

Infor Solution



Infor MES enabled scalability so that new manufacturing lines could be added easily—and at low cost

Outcome



Maxeon improved throughput time by 40% and reduced cost/ watt by 6%

Challenge

Staying competitive amidst falling PV module prices

While Maxeon benefited from the increasing popularity of renewable energy sources, that boom in demand has come with its own set of challenges.

Competition has intensified as individual homeowners and big corporations turn to solar power, and with the cost of PV modules continuously falling, it was a challenge to stay competitive, compliant, and innovative at the same time.

To retain agility and competitiveness,
Maxeon implemented cost reduction plans,
setting up plants in low-cost locations.
However, these measures still couldn't offset
the costs from largely manual operations and
ever-intensifying competition.

Infor Solution

Outfitting a smart manufacturing operations system with a brain

Maxeon's response to these industry-wide challenges was to embark on a journey towards automation and smart manufacturing.

The opportunity for change came when they built a new factory in Ensenada, Mexico.

Maxeon set up a cross-functional team and began redesigning its manufacturing system to take full advantage of automation, with a goal to deliver ROI within 12-18 months.

It aimed to produce about 3,000 high quality modules, i.e., 1 megawatt per day at full capacity, quantifying targets in terms of throughput, capacity per line, reduction in direct labor and cost/watt. To deliver on these goals, it would require an MES software that would fit their needs.

"The MES system needed to fit into the overall design, be able to support quick fire implementation, be within budget and easy to learn," said Manoj Kumar Gona, Director – Enterprise Applications, in charge of key initiatives across the plants.

"We chose Infor® MES, which we already used in other plants, as it met these requirements well."

Infor MES' capability to deliver top floor to shop floor integration, enabling real-time control and visibility of manufacturing operations, made it the right partner to support Maxeon's goals. These capabilities combined with Infor's ability to deliver fast time to value are ideal for an organization like Maxeon, which needed to improve productivity fast while keeping costs low to stay ahead of the curve.

"Infor MES empowers the machines with intelligence so they know what they have to do."

MANOJ KUMAR GONA
DIRECTOR, ENTERPRISE APPLICATIONS



Outcome

Maxeon increases PV output by 40% with MES software

Embedding Infor's MES solution deep into its processes enabled Maxeon to leverage its smart equipment and improve processes while kickstarting its smart manufacturing operations.

As a result, it managed to reduce direct labor by about 40% from what it was in a manual operations setting and throughput time by about 40%.



Real-time visibility of manufacturing processes and events happening in production allowed for improved output, efficiency, and quality. The data MES provides also enabled a better response to downtime and quality issues reducing warranty claims.



Enhanced inventory accuracy tracked materials, reduced cash flow tied up into WIP, and provided Enterprise Resource Planning teams with accurate data for better supply chain efficiency and traceability. This improved traceability resulted in better compliance, crucial for a market leader like Maxeon.



Standardized processes, enforced routing and workflows, and clear communication with up-to-date instructions for operators led to error-proof production, which in turn reduced raw material waste, energy consumption, and rework times.



Maxeon needed to maximize its agility to meet market shifts, and MES supported them by enabling operations to allocate resources and adjust production schedules on the fly.

These improvements resulted in a reduction of the cost/watt by 6%, directly improving the bottom line while managing to retain team members.

"Automation is often associated with job losses," says Gona. "But at Ensanada, thanks to a robust training program, there was practically no job loss as workers were re-employed to new lines."

About Infor

Infor is a global leader in business cloud software products for companies in industry-specific markets. Infor builds complete industry suites in the cloud and efficiently deploys technology that puts the user experience first, leverages data science, and integrates easily into existing systems. Over 67,000 organizations worldwide rely on Infor to help overcome market disruptions and achieve business-wide digital transformation.

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